

Oregon 4-H Wildlife Stewards



**Bringing
Science
& Nature
Together**

ONE SCHOOL AT A TIME

Trainers Guide

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www.wildlifestewards.4h.oregonstate.edu

An OSU Extension 4-H Master Science Educators Program

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Why Should I Keep a Project Notebook?

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Writing Grants to Support Your Project

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Introduction



About this Guide

The *Oregon 4-H Wildlife Stewards Trainers Guide* is designed for Extension 4-H staff and local community partners who want to develop and sustain a 4-H Wildlife Stewards program in their community.

The training program gives trainees basic skills, knowledge, and experiences that they need in order to help students and teachers create, use, and sustain Habitat Education Sites on school grounds. Any community, state, or region of the country can deliver an effective training program using this Guide. Some schools may want to add or revise sessions to meet their specific local needs, but most of the training sessions can be used in any part of the country.

Wherever possible, the training program incorporates the 4-H Learning Model "Learn by Doing" by actively engaging trainees in hands-on activities. Trainees design science inquiry projects, map a Habitat Site, identify local native plants, and build an insect trap, to name just a few. In every case, trainers are encouraged to use the 4-H Learning Model in their teaching and to respect trainees' different learning styles.

The Trainers Guide includes how to set up and conduct your training, training session lesson plans, and many sample resources. It was developed by 4-H and other Extension faculty of the Oregon 4-H Wildlife Stewards State Design Team. The 24-hour training program outlined in this guide is the result of evaluating feedback from more than 450 trainees in 22 different trainings over an 8-year period.

The heart of the 4-H Wildlife Stewards program is the 4-H Wildlife Stewards themselves: the volunteers and teachers who complete the 4-H Wildlife Stewards

training. It takes considerable time, energy, and resources to set up, conduct, and evaluate the 24-hour training program outlined in this guide, but the payoff is a vibrant and exciting program that has significant impact on our youth.

Acknowledgements

Special thanks to all the Oregon 4-H Wildlife Stewards State Design Team members who made this guide possible. It is through their vision, creativity, and commitment that the 4-H Wildlife Stewards program has been a success.

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Program Goals

Two of the critical issues facing Oregon in 1996 were (1) a growing public concern over the deterioration of our environment and the resulting loss of wildlife habitat, and (2) The Oregon Education Act for the 21st Century. This act boldly set new, higher standards designed to prepare students for the challenges they face after high school. Classroom teachers were working hard to meet the new standards while facing shrinking financial resources and rising class sizes, and they were feeling overwhelmed and overworked. Parents and community members were looking for ways to become involved

both in caring for the environment and supporting their schools. Families and communities realized that educating youth was everyone's responsibility, not just that of schools. To answer these challenges, the Oregon 4-H Wildlife Stewards Program was begun.

The goals of the 4-H Wildlife Stewards Program are to:

1. Promote and enhance science learning and environmental stewardship among youth by inspiring, educating, and connecting communities, schools, natural resource agencies, and organizations
2. Inspire citizens to get involved in their communities and support their local schools
3. Bring nature closer to youth and adults

To achieve these goals, the program trains volunteers (4-H Wildlife Stewards) to work with students and teachers in both small groups and large classes to:

- ✦ Map, inventory, and develop a Wildlife Habitat Education Site
- ✦ Design and implement science inquiry research projects on the site
- ✦ Develop gardening skills and an appreciation for nature
- ✦ Keep portfolios of their work
- ✦ Document their project

4-H Wildlife Stewards also are trained to:

- ✦ Gather resources, curricula, materials, and supplies for the Habitat Site
- ✦ Coordinate fundraising and grant writing efforts
- ✦ Assist teachers in presenting lessons and activities in or about the Habitat site
- ✦ Promote the program through the media
- ✦ Recruit and support community partners and parent volunteers
- ✦ Provide leadership to a school Habitat Team planning committee

The 4-H Wildlife Stewards then help students and teachers create, use, and sustain wildlife Habitat Education Sites on school grounds as science learning laboratories.

Using master volunteers to facilitate and enhance challenging science education programs for youth is an innovative approach in line with emerging research on school and community connections. Creating and supporting strong school and community connections

is a critical component of building capacity for positive youth development. Furthermore, this delivery model is validated by research which suggests that the benefits of parent and community engagement in school innovations and reform are not only improved schools, but also stronger communities.

4-H Wildlife Stewards Ecological Model

Through program evaluation and input from the national advisory board, volunteers, and teachers participating in the program, a new model—the **4-H Wildlife Stewards Program Theory**—has evolved to illustrate the complex interactions of the program's components.

This new model demonstrates that youth outcomes are improved when the many interdependent variables are in place and working toward common goals. It is clear: responsibility for providing rich and varied opportunities to develop essential skills and competencies for youth is not the school's alone. Parents and community members play an important role as well. Learning and development take place and are affected as much by what happens out of school as in school.

Evidence also suggests that 4-H Wildlife Stewards volunteers alone cannot drive a successful program. 4-H Wildlife Stewards volunteers must work collaboratively with each of the stakeholders represented in the model (see chart, page 4).

Key elements of the program model

- **The 4-H Program Substrate.** The 4-H Program Substrate is the program staff with the Oregon State University Extension 4-H program. The staff provides volunteer training, materials, and program support, including support for schools and volunteers. The program substrate is the base upon which the program is built. One of the most frequent comments offered by teachers was that the program materials and support gave them new ideas and ways to teach science.
- **Trained 4-H Wildlife Stewards.** At the center of the program model are the trained volunteer 4-H Wildlife Stewards who make the program happen. Upon completing training, volunteers are required to give back at least 50 hours to the program, most often through work at a school. There is a tremendous amount of groundwork that the volunteer must do

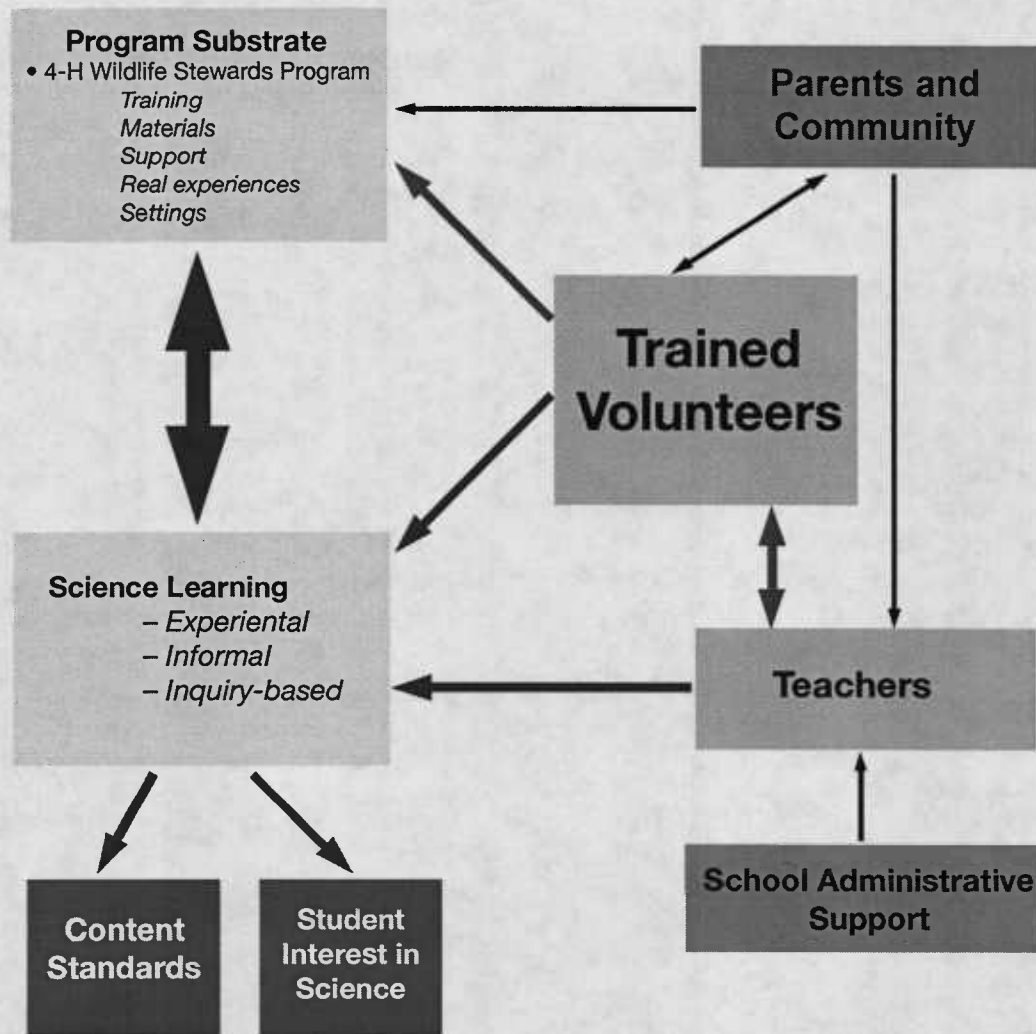
to facilitate the development of a Habitat Education Site before it can be used for science education. This is especially true when a volunteer is starting the program at a school that has not participated before. It is clear that the training needs to include a great deal of information on the “nuts and bolts” of making a program successful, in addition to modules on science inquiry and science education. The “nuts and bolts” include:

- ↳ How to work with schools
- ↳ Understanding school district guidelines
- ↳ Securing support and funding for the project
- ↳ Developing the Habitat Education Site, including sustainability and maintenance
- ↳ Mapping out a site
- ↳ Determining what type of Habitat is best for the site

While the emerging program model still places the trained volunteer at the center, it is clear that the volunteer does not operate in a vacuum, but rather in an ecological web of relationships surrounding the project.

- **Teachers.** The training was developed for volunteers, yet more and more teachers began to attend. In some cases, a teacher and volunteer went through the training together. It became clear that an important key to program success is the level of teacher interest and involvement. In some cases, the teachers are only minimally interested in the Habitat; in others, the teachers are actively involved with the Habitat development—some even use the development process as an opportunity for student science projects.
- It is necessary to note, however, that the teacher summative questionnaire revealed no significant differences in responses between teachers who had gone through the training and teachers who had not.
- **School Administrative Support.** Another key component of the program model is the level of support provided by the school administration, primarily the school principal. Like teacher involvement, principal support varies widely from a basic awareness of the program to active involvement in the project. While project success is clearly not dependent on the active involvement of school administration, the schools with projects that are thriving often have principals who are actively involved in the program.
- **Parents and Community.** Project success is also enhanced by the involvement of parents (who are not trained volunteers) and community members. Parents often provide additional support when the students are learning in the Habitat, and community partners play a key role by providing resources and financial and material support for the project.
- **Student Science Learning.** All of the program component models play a role in enhancing science education, through the development of a wildlife Habitat Education Site that provides a place for students to engage in hands-on, real-world science exploration and learning.

The 4-H Master Science Educators Program Theory Model



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Organization and Logistics



Working with local partners

Establishing your own local partners for the 4-H Wildlife Stewards Program is the first key to success, and an important one. Local partners can help with recruiting, training, supporting, and recognizing your volunteers and schools. They also can provide valuable resources, curricula, equipment, and staff support. Local partners often also provide funding for the training in order to keep the costs low, or financial support to hire a 4-H program staff person to serve as a volunteer coordinator.

Identifying and recruiting your local partners takes time and careful thought. Choose partners who share a common vision and can provide the needed support, influence, or contributions needed for your local 4-H Wildlife Stewards program. You might need to meet several times before these partnerships can be finalized, and a Memorandum of Understanding may be required. Local partners often want their name and logo listed on the promotional materials, so it is important that your expectations are clear.

Here are some things to consider when developing your local partnerships:

- ✧ Make sure everyone shares a common vision.
- ✧ Be sensitive to the needs, styles, and limitations of each partner.
- ✧ Maintain frequent and open communication.
- ✧ Be sure everyone understands what is expected of each partner.
- ✧ Continually reflect on where you are, where you are going, and where you want to be.
- ✧ Identify and manage conflicts in the beginning.

Potential local partners

- ✧ Soil and Water Conservation District
- ✧ National Wildlife Federation
- ✧ Regional Government
- ✧ Extension Master Gardener™ volunteers
- ✧ Junior Master Gardeners
- ✧ Extension Master Naturalists
- ✧ Department of Conservation and Recreation
- ✧ Parks and Recreation
- ✧ Audubon Society
- ✧ Bureau of Land Management
- ✧ Watershed Councils
- ✧ State Fish & Wildlife departments
- ✧ Local nursery
- ✧ Local arboretum
- ✧ U.S. Forestry Department
- ✧ Department of Education

The Training Team

The training team is a critical component of your training program's success. It's important that the training program coordinator identify and recruit the right people for the team. They should be people who are passionate and committed to this program's concept, and who have the time and energy to devote to making the training successful.

The training team is composed of the **core training team**, staff who must attend each day of the training; and **guest trainers**, who may be recruited from the local community and have a special expertise that the core staff team may lack.

Core training team

The core training team usually consists of three to five trainers for 30 participants. It's a good idea to identify and recruit the core training team at least 9 months to 1 year before the first training. This allows enough time for the team to meet; make some key decisions about the training site, schedule, and promotion; and promote the program.

The core training team is responsible to do the following:

- ✧ Select the training site and coordinate all facility arrangements
- ✧ Develop a training program budget
- ✧ Promote the training program
- ✧ Develop the final training schedule
- ✧ Collect all training registration and 4-H enrollment and registration fees
- ✧ Ensure that confirmation/information letters get out to all trainees
- ✧ Ensure that all guest trainers are recruited and their confirmation letters are distributed
- ✧ Make sure that all resource materials and supplies are gathered and available for the training
- ✧ Welcome trainees on the first day of the training
- ✧ Ensure that the training program runs on schedule, and that adjustments to the schedule are made as needed
- ✧ Conduct an end-of-training evaluation
- ✧ Send out permanent name badges to all 4-H Wildlife Stewards trainees who complete the training. (You can order name badges through the Oregon 4-H Wildlife Stewards Office.)

The core training team members must include at least one 4-H staff person. The other team members could include any of the following:

- ✧ Extension Master Gardener™ staff or volunteer
- ✧ Extension Natural Resources staff or volunteer
- ✧ Active 4-H Wildlife Stewards member
- ✧ Agency partner staff (i.e., state Fish and Wildlife education staff)

Guest trainers

Add guest trainers to the training team for their specific expertise in a subject. You may need their help especially with the content of Day Two, "Creating Your Habitat Education Site." Usually, you can find subject experts in your local community.

Guest trainers themselves are a valuable resource for trainees and can connect them to other helpful organizations once they begin their volunteer service. Guest trainers also keep the training fresh and the pace moving because of the different teaching styles they bring.

Valuable guest trainers may be:

- ✧ Someone from the local school district to talk about school district guidelines and what schools generally expect when a Habitat Education Site is created on school grounds
- ✧ Wildlife biologists and horticulturists from the state Extension Service, state Fish and Wildlife, Audubon, Bureau of Land Management, and other natural resources agencies to present the following sessions on training Day Two:
 - o Principles of Wildlife Management
 - o Attracting Birds to Your Habitat Education Site
 - o Common Local Mammals
 - o Insect Basics
 - o Herptiles in Your Habitat Education Site
 - o Native Plants for your Habitat
 - o Map and Inventory Your Site

Prepare your guest trainers for the workshop

Be sure to let guest trainers know what to expect and the subject matter you would like them to cover. For example, if you ask a guest trainer to conduct a Wildlife Species talk on birds, mammals, and insects, be sure to ask him or her to focus only on those species that typically are found in a school Habitat Education Site local to the trainees' geographic area. You can send the relevant training session lesson plan(s) in this guide to guest trainers to help them frame their presentation.

Review the 4-H Wildlife Stewards training program goals and purposes with guest trainers when you recruit them. At least 2 weeks before the training, send a confirmation letter to your Guest Trainers (see the "Sample Guest Trainer Confirmation Letter," Appendix B).

Preparations and Timeline

Task	When to do it
Identify, recruit, and meet with local agency partners and your core training team to plan the training.	9 months to 1 year prior
Secure a facility for the training and arrange for a facility contract.	6–9 months before
Promote the training statewide to Extension staff and faculty.	3–6 months before
Promote the training to regional school districts, PTAs, community groups, and others.	3–6 months before
Contact potential guest speakers and confirm date, time, location of the training site, topic, equipment needs, what to bring, and number of expected participants.	3–6 months before
Recruit veteran 4-H Wildlife Stewards to help host the training (help with registration, set up snacks, greet trainees, etc.).	3 months before
Meet with training facility staff to confirm training room arrangements, equipment, meals and snacks, lodging facilities, parking needs, and who to contact for information.	2 months before
Arrange a school tour for the first afternoon of the training.	2 months before
Collect items for the training “auctions” (see page 15 for a description of the auction and possible auction items).	2 months before
Send out participant confirmation letters.	2 weeks before
Secure any equipment needed for trainer presentations.	2 weeks before
As registrations come in, mail out 4-H Leader applications, your state’s enrollment forms, welcome letters, and directions. Streamline work by having everything but the welcome letter already in the envelopes. Personalize the welcome letter and add it to the envelope last. (See Appendix B for the forms that Oregon 4-H uses with their trainings.)	2 months before
Order the <i>Oregon 4-H Wildlife Stewards Volunteer Handbook</i> and <i>Project Certification Handbook</i> , the Habitat Education Site Toolkit DVD (see Appendix D), and any other resources needed for the training.	2 weeks before
Secure morning and afternoon snacks for the training, if they are not provided by the training facility.	1 week before
Buy name tag holders and make name tags for participants.	2 days before
Put the state 4-H publications catalog (Oregon uses <i>The 4-H Clover</i>), a contacts list (local and state staff), and stickers in the notebook pocket.	2 days before
Sign-in time <ul style="list-style-type: none"> • Introduce yourself, and hand out each name tag. • Give a participant his or her copy of the <i>Oregon 4-H Wildlife Stewards Volunteer Handbook</i> and <i>Project Certification Handbook</i>, Habitat Education Site Toolkit DVD, and any state-specific curricula that you will use during this training, only after he or she has turned in all state-required paperwork and paid training fees (see page 14, “Arrival of trainees”). • Always take extra copies of required forms for people who forgot to bring theirs. • Invite participants to get a cup of coffee and find a place to sit. 	First day of training
Keep refreshments replenished throughout the day.	Throughout training
Make announcements at the beginning of the training on “housekeeping” details, such as where the bathrooms are (hand out maps of the site, if needed), when the meals and breaks are, etc. See “Day One” for a complete list of these housekeeping announcements.	First day of training
Help keep presenters on schedule by giving reminders of time remaining.	Throughout training
Collect any paperwork still outstanding that you distributed to participants during the training, including the 4-H Wildlife Stewards Program Expectations form, course evaluations, and name tag order forms.	Last day of training
Collect and deposit all checks and other forms of payment.	Last day of training
Have participants complete a name badge order. (There is a picture of a sample 4-H Wildlife Stewards name badge on page 169.) Contact a local vendor about making name badges for your program. Send the order form to the 4-H Wildlife Stewards Oregon office (see Appendix D).	Last day of training

Budget and Expenses

You can conduct a 4-H Wildlife Stewards Training without any additional cost to your 4-H program. In most cases, teachers and other potential volunteers are willing to pay the training fee, and they find the cost quite affordable. Often, school principals and Parent-Teacher Associations will fund the cost of sending a team to the training. The local 4-H Leaders Association or state 4-H Foundation also might provide funding or 4-H Leader scholarships for those who can't afford the training fee. In some cases, 4-H and other Extension staff members can charge their travel, meals, and lodging to their Extension budgets.

Another option is to add a small amount (for example, \$5.00) to all participants' training fee. This extra revenue can provide scholarships for those who can't afford the training.

Your biggest expense is renting the training facility. Some places charge a lump sum for full use of their facilities. Other sites may establish a cost per person. Once facility costs are established, other costs are easier to determine (see the "Sample Budget").

A simple and straightforward way to set up your budget is to use an Excel spreadsheet. By plugging in different numbers of "units" (persons), you can calculate how many trainees would need to attend in order to break even on costs.

Your core training staff will need to decide what curricula to buy as part of your budget. The Oregon 4-H Wildlife Stewards program offers a variety of curricula

that can be used for this training program. You also may use local 4-H and Extension curricula to supplement the training curricula provided in this guide.

Refer to the "Supplies and Equipment Checklist" (page 14) for items you may need to purchase. You might have to spend at least \$250.00 to buy everything you need.

Sample Budget—4-H Wildlife Stewards Training

Revenue			
	Base Cost	Unit(s)	Total Cost
Registration (commuter)	\$ 142.00	20.00	\$ 2,840.00
Registration (overnight)	203.00	8.00	1,624.00
TOTAL			4,464.00
Expenses			
overnighters fee	76.25	8.00	610.00
commuters fee	32.00	20.00	640.00
training team overnight fee	76.25	3.00	228.75
WS curriculum	76.00	28.00	2,128.00
name badges	7.50	28.00	210.00
training team travel	0.40	600.00	240.00
supplies	250.00	1.00	250.00
snacks	6.00	28.00	168.00
4-H Activity Insurance	0.45	33.00	14.85
TOTAL			\$ 4,989.60
Balance			\$ 25.60

Select Your Training Date

Choose the date for your training and begin to promote it at least 9 months to 1 year beforehand. Many of the people who sign up for 4-H Wildlife Stewards trainings have busy schedules. The sooner they can get the training dates on their calendar, the better.

To determine the best dates for your training, get advice and feedback from parents, teachers, school administrators, and organizations. Here are a few things to consider:

- ✦ Find out when training facilities are open and when they might have off-season rates.
- ✦ The core training team and guest speakers may have prior commitments for certain times of year—check with them to confirm that they are available.
- ✦ Ask your school district when the year's in-service training days are scheduled, and if the Wildlife Stewards training will qualify as an option for teachers to attend. If yes, then schedule your training on those dates. (School districts can be good partners in helping to endorse and promote your training to teachers and school staff.)
- ✦ Check school district calendars to find out when state testing or other major activities may be happening, which days are school holidays, and when there is no school for other reasons. Avoid scheduling training on these dates.

Each time of year has its pros and cons for conducting training. Your training team will have to choose the dates that work best for most people. Remember, no date will be ideal for everyone.

- ✦ Late August and early September
 - *Pro:* This is an excellent time to get people while they are fresh and excited about the new school year.
 - *Con:* Teachers and parents are busy with back-to-school activities and settling in for the new school year.
- ✦ Early fall
 - *Pro:* New volunteers can begin implementing plans for their Habitat Education Site in the current school year.
- ✦ Late November and early December

- *Con:* It may be difficult to schedule a training when there are many holiday activities.

✦ January and February

- *Pro:* These are often slow months for schools and could be an ideal time for training.
- *Con:* Outside activities will be limited for training sites where winters are harsh.

✦ March

- *Pro:* The weather is starting to improve and people are getting excited about gardens.
- *Con:* In many school districts, this is when spring break occurs. Generally, teachers and parents like to take this time off and are not interested in attending a training.

✦ April and May

- *Pro:* These are ideal months for trainees to do outside activities and see other school sites.
- *Con:* Teachers and parent groups are often quite busy with Habitat Education Sites, school field trips, Earth Day Celebrations, and end of school programs. People are thinking about bringing closure to school programs rather than building new ones.

✦ June and July

- *Pro:* Many people are able to take time off more easily or may not work during the summer.
- *Con:* School is closed, and families and teachers are taking vacations.

Select Your Training Facility

The place you choose to hold your 4-H Wildlife Stewards Training is an important factor in the training's success. A comfortable and relaxing learning environment sets the tone for a culture of collaboration, creativity, inspiration, and lifelong learning.

There are a few questions to clarify before selecting your facility.

- ✦ Is the training aimed at local teachers and other volunteers only, or is it open to teachers and others from out of town as well?
- ✦ Will your training be conducted over 3 consecutive days, or will it be conducted once a week for several weeks?

- ☞ Do you have funding to pay for the training facility, or does the training need to be self-sustaining?

Once you have answered these basic questions, then you can narrow down your options of where to host your training.

Recruit a committee to help with the selection process

The first step in choosing a training facility is to recruit one or two other staff or key volunteers to help decide. Different people have different perspectives, and they can point out both good aspects of the site and potential areas of concern.

Select and reserve your site at least 9 months to 1 year in advance, after you've decided on the date(s) of the training. This gives you time to develop promotional materials and promote the training.

Consider the requirements below when choosing a training site.

Training site requirements checklist

☐ Location

Location is the first consideration when selecting a site. It is best if your site is close enough so that most of the trainees can commute there each day. (Many people prefer to return home each night.) A site that is too far away may limit your pool of applicants.

In some cases, if the training is held in a beautiful area or a resort-type facility, people are willing to drive the extra miles and stay overnight. Affordable, comfortable lodging and excellent meal service are very important in this case.

☐ Access to natural areas and wildlife habitat

Choose a place where you can conduct some of the curriculum lessons, demonstrations, mapping and inventory exercises, and habitat evaluation lessons outdoors. You need an area large enough for a group of 20 to 30 people, preferably large enough to accommodate two or more smaller subgroups working at the same time.

☐ Comfortable overnight lodging for camp settings

Camp settings can be ideal for a 4-H Wildlife Stewards training, but it's best if lodging includes indoor bathrooms, semi-private rooms (i.e., no more than two to four adults in one room), and comfortable beds. If no lodging is available on-site, work with local hotels and motels to arrange discount lodging for trainees.

☐ Meals and coffee service

Good food, quality coffee and beverage service, and healthy snacks can sometimes make or break a training! Check with each facility to find out if they provide meal service; if they do, ask for a sample menu. Remember to provide options for participants who indicate food allergies on their registration forms. Get recommendations from past guests of the facility to find out if the food was good. If the facility does not offer food service, inquire about local caterers who can bring in lunch.

Though you can keep the cost of the training lower by having participants bring their own lunch, we recommend that meals be provided. First, several people will forget to bring their lunch and need to get something at a restaurant nearby. As a result, they are often late returning to the training. Second, providing a sit-down meal can create a relaxed atmosphere where trainees can talk together and begin to form relationships and networking opportunities.

☐ Meeting rooms

The facility must have one meeting room large enough to hold tables and chairs for all the participants and several more tables for displaying resources, education kits, and other things. The room must also be large enough for the trainees to move around for various activities.

Some sessions require that the main group divide into smaller groups, so there also must be two or three breakout rooms. Each breakout room must accommodate a small group of seven to eight people (assuming 25 people total in the training).

Consider how far the breakout rooms are from the main training room. Rooms that are far away mean more transition time to move groups from session to session.

Also consider where meals will be served. If they will be served in the main training room, is there a smaller room or adjacent area where the meals can be set up without disrupting the training?

☐ Equipment and supplies

Check with the facility to see which of the following equipment they can provide. The less equipment you need to bring with you, the easier it is.

Some facilities may charge you to rent equipment. Either include that in your budget, or be willing to bring the equipment yourself.

For a training with 25 people, you will need:

☞ 15 to 20 tables

☞ 30 chairs

- ↳ Overhead screen
- ↳ Data projector and computer
- ↳ DVD or VHS player
- ↳ Extension cord
- ↳ Power strip
- ↳ Coffee maker
- ↳ Refrigerator for snacks

☐ Proximity to a 4-H Wildlife Stewards Member School

One of the options for Day 1 is to arrange a tour of a nearby 4-H Wildlife Stewards member school or a school with a well-used outdoor learning site/garden. At 4-H Wildlife Stewards Member School, trainees can walk through a wildlife Habitat Education Site and meet students, teachers, and 4-H Wildlife Stewards volunteers. If this is your first training and there are no 4-H Wildlife Stewards Member Schools in the area, find a nearby school that may have a school wildlife garden that you can visit.

While it would be ideal to host a training near a 4-H Wildlife Stewards Member School, it is not absolutely necessary. Many times there are no training facilities near a school.

Good facilities for your training

Retreat-type facilities are the best for conducting a training. They usually are in a beautiful setting; they have comfortable lodging and good meal service. Also, they often have several meeting rooms and a variety of equipment. Some retreat centers can be expensive, though; be sure to compare rates.

4-H camps can be a good option. However, the 4-H camp may not have the attributes of a good 4-H Wildlife Stewards training facility. In that case, look at other camp facilities (such as YMCA) in your area.

If you are looking for more options, check the Internet and get recommendations from friends and co-workers. Your local Chamber of Commerce is also a good resource for helping you find training facilities.

Note: A common suggestion is to host the training at a local school, the local Extension office, or a public building such as a library. These are often free of cost and in a convenient location. But, there are drawbacks to these sites—uncomfortable seating, no on-site overnight lodging, interruptions from other visitors, and no access to natural areas. The primary reason not to choose these facilities, however, is that trainees' tone and energy level are significantly more restrained in

formal classroom-type meeting facilities than in a more informal setting.

Working with the training facility staff

It is important to establish a good working relationship with the facility management staff. They are partners in your efforts to create an ideal training environment. When you are in the process of choosing your facility, set up an appointment with facility staff to arrange a site visit and tour. Bring your site requirements checklist and confirm what they can and cannot provide for the training. Also, find out what they will expect of you.

Other questions to ask the facility staff:

- ☐ What are the payment requirements? How much deposit must be paid to reserve the site?
- ☐ Will other groups be using the site at the same time? If so, will mealtimes or other amenities be shared?
- ☐ Are there public phones available for trainees to use? (If not, be sure to let trainees know this in their confirmation letter.)
- ☐ Are there vegetarian meals and other special dietary meal options available?
- ☐ By when do they need the final meal counts?
- ☐ Can 4-H Wildlife Stewards staff set up the meeting rooms the day before?
- ☐ What are the set-up and clean-up responsibilities? For example, who is responsible for setting up and putting away tables and chairs?
- ☐ Is someone from the facility staff available to give a 5-minute welcome on the first day?
- ☐ What parking facilities are available?
- ☐ What accommodations are available for disabled participants?
- ☐ How will you be able to contact the staff during the training? (This is especially important at a site where meeting rooms are far from the main office.)
- ☐ Are bedding and towels provided for overnight guests? Are there other things that overnight guests must bring?
- ☐ Will the meeting rooms be locked so that trainees can leave their notebooks and personal items safely overnight?

Keep in regular contact with your facility management staff before and during the training. This will help ensure that issues are resolved promptly.

Promote Your Program

Once the date is set and the facility is rented, then it's time to promote your training program. There are two important things to keep in mind before you begin.

1. If this is the first 4-H Wildlife Stewards training in your area, you'll need to devote considerable time to explaining what the program is. Decide who can help you promote your program and get your message out. Identify and recruit key leaders in your community who have the respect of parents and teachers and can influence them.
2. You will need to invest time and resources to develop and distribute promotional materials. What kind of budget do you have? Do you have staff or volunteer support for development and distribution?

Enlisting support

In his book *The Tipping Point*, Malcom Gladwell talks about individuals who know lots of people, know and like to collect information, and are natural born salespersons. In every community, these are the people who disseminate news and new ideas. Gladwell calls these individuals **Connectors**, **Mavens**, and **Salesmen**. Set up a time to meet these key leaders, to explain your program and enlist their support and advice. Bring extra brochures, flyers, and other materials that they can distribute to others.

Don't expect these people to volunteer in your program—their role is to spread the message about your program. Enlist them on your team, and you've made a giant step forward in getting the word out.

Connectors

Connectors know lots of people. They have an instinctive and natural gift for making social connections. They like people in a genuine and powerful way, and find the patterns of acquaintanceship and interaction fascinating. Sometimes a Connector in your school might be the school principal, or the PTA president, or perhaps a member of a local civic organization who is highly involved in supporting education in the community.

Mavens

Just as there are people we rely on to connect us with other people, there are also people we rely on to connect us with new information. They are the **Mavens**. They are the information brokers, sharing and trading what they know. Enlisting the support of the key individuals in your community who possess the gift of spreading a message can have more impact than distributing a thousand flyers.

The critical thing about Mavens is that once they figure out who is doing what in the community, they want to tell others about it. Getting a Maven on your team guarantees that your message about starting Habitat Education Sites on school grounds will spread. Furthermore, Mavens can tell you who would make good project partners, which are the good media sources for promoting the program, and which schools might be worth targeting.

Salesmen

Salesmen are the individuals who possess the power of persuasion. They can take an idea or program like 4-H Wildlife Stewards and persuade others that it is the best and the one in which they should invest their time and energy.

If you don't already know who these people are in your community, ask friends, colleagues, teachers, principals, and community partners who they recommend. Don't be surprised if many people identify the same two or three people.

Promotional materials

- Member School Promotional Brochure
- Oregon 4-H Wildlife Stewards Executive Summary (contact the Oregon 4-H Wildlife Stewards office to get the most recent Executive Summary)
- Member School Application
- 4-H Wildlife Stewards Volunteer position description
- Program expectations and commitment form
- 4-H Member School Enrollment Form. Each state's 4-H office has its own form for reporting club and school enrollments. Contact your local 4-H office to find out how to report 4-H enrollment.
- Published article
- Dates of upcoming trainings

Brochures and flyers

A sample promotional brochure and training flyer are included in this Guide (Appendix B). You can adapt them for your local use. Distribute brochures, flyers, and postcards at the following places and events:

- ✧ Your local Extension Service office (to currently enrolled 4-H Leaders)
- ✧ Targeted schools (to principals and science teachers)
- ✧ Libraries
- ✧ Nature centers and parks
- ✧ Back-to-School Nights

News releases

You can identify media outlets in your target area or community by doing a simple search on the Internet. You also can ask schools what community newspaper serves their area. A newspaper, radio, or television station's website gives you the name of the person to contact there and the e-mail address or fax number to which you send the news release.

When you send out a news release, be sure to include your project's contact information, including a name, street address, phone, fax, e-mail, and a website (if there is one).

Think of innovative ways to catch the media's attention. If you want a television station to cover the groundbreaking ceremony at a 4-H Wildlife Stewards school, be creative. For example, have students (with an adult chaperone such as a teacher, parent, or 4-H Wildlife Steward) from the school go to the station with a "gift" for an anchorperson, such as a magnifying glass with a note attached to it.

Use local partners' newsletters and e-mail

Local community partners and natural resource organizations often have their own newsletters and e-mail distribution lists. Invite them to include information about your upcoming training. Some of these partners might include:

- ✧ Local OSU Extension Service offices
- ✧ Extension Master Gardener™ volunteers
- ✧ Soil and Water Conservation District
- ✧ National Wildlife Federation
- ✧ Regional government
- ✧ Parks and Recreation
- ✧ Audubon Society
- ✧ Bureau of Land Management

- ✧ Watershed Councils
- ✧ State Fish and Wildlife Service
- ✧ Local forestry center
- ✧ Local nursery
- ✧ Local arboretum

Reference

Gladwell, Malcolm (2000). *The Tipping Point*. Little Brown and Company: Boston, MA.

Creating the Ideal Learning Atmosphere

Teachers and other volunteers have made a substantial time commitment to attend a 4-H Wildlife Stewards training. Therefore, it's important that the atmosphere you create is conducive to creativity, inspiration, and learning. Attention to detail makes all the difference in how trainees feel welcomed and respected.

Communicate with trainees

Some people want as much detail as possible about a training long before they arrive. Others will read the information they receive about the training the night before. Refer to the sample promotional brochure and confirmation letter (Appendix B) for important ways to communicate to trainees.

Trainees must have the following information before they arrive:

- ✧ Date(s) of training
- ✧ Location of training facility (address and map)
- ✧ Time they are expected to arrive
- ✧ Time training begins and ends each day
- ✧ A training agenda
- ✧ What they are expected to bring (i.e., bedding, lunch, pen)
- ✧ What will be provided (i.e., lunch, snacks, notebooks)
- ✧ Paperwork they need to complete (i.e., 4-H Leader application)
- ✧ Parking facilities
- ✧ Accommodation for special needs
- ✧ What to wear
- ✧ Registration fees due
- ✧ Option for university education credits and how to apply

Check in with trainees at the beginning and end of each training day to see how everyone is doing, and if their needs are being met. In your opening “housekeeping announcements,” encourage trainees to talk with the 4-H Wildlife Stewards training staff if they have any problems or concerns.

Training room set-up

Setting up the room for a training can take some time. It is best if you can set up the meeting rooms the day before the training begins. This allows you to arrive the day of the training relaxed and ready to greet trainees without distraction.

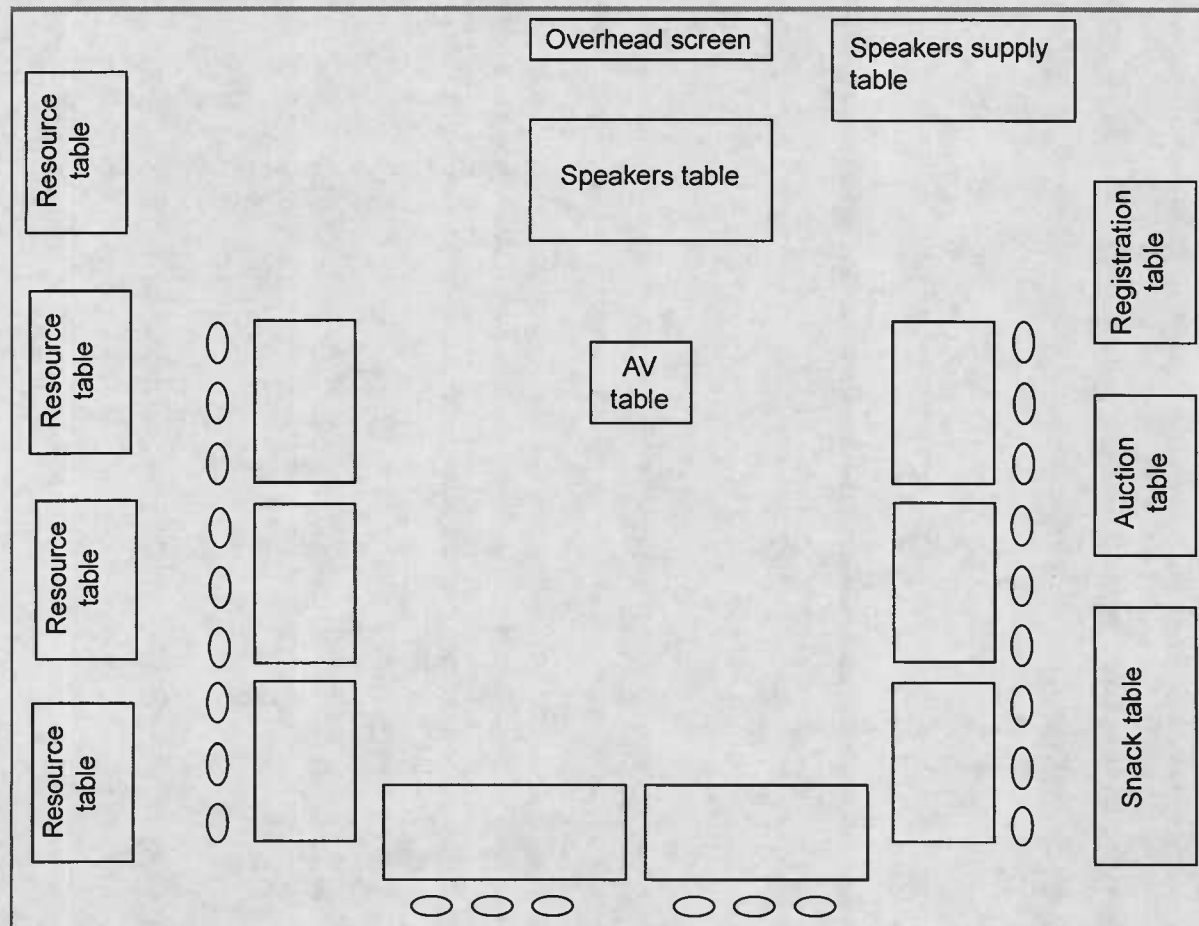
See the sample training room set-up (below) based on 25 to 30 trainees attending. Breakout rooms can be more informal and relaxed.

Arrival of trainees

On the first day, have everything set up and ready at least 30 minutes before start time. (Some trainees arrive as much as 30 minutes early.)

- ✦ Have coffee and tea ready and some healthy snacks. (Some people may not have eaten breakfast.)
- ✦ Have the registration table set up, and welcome trainees warmly when they arrive.
- ✦ Have participants sign in and get their name tag when they arrive. Give them their volunteer training materials (see “Registration table,” page 16), DVD, and “4-H Wildlife Stewards Money” (WLS \$) (see page 15). If a trainee has not completed the required paperwork for 4-H Leadership (such as the 4-H Leader application;

Sample training room set-up



each state has its own requirements) or not yet paid the training fee, do not give him or her the training materials. It is more difficult to collect paperwork or training fees later, and trainees are always quick to fill out their paperwork in order to get their training materials.

- ✧ Set up resource tables around the room to display 4-H Natural Resources curricula, materials, and education kits.
- ✧ Encourage those who arrive early to get some snacks, visit the resource tables, sit down and look through their notebooks, or take a walk outside. Encourage those who have not completed their paperwork to sit down and complete it.

“4-H Wildlife Stewards Money” and Auction

WLS \$

A fun and engaging way for trainees to participate in all aspects of the training is with “4-H Wildlife Stewards Money” (WLS \$). Print and cut some WLS \$ (see masters in Appendix C) and award it to participants throughout the training. Each training staff member should have WLS \$ to give away at his or her discretion.

There are lots of creative ways to award WLS \$.

- ✧ At registration, to the first person to arrive or the person who came the farthest
- ✧ To trainees who return to their seats and are ready to start on time
- ✧ To a trainee who volunteers to help demonstrate something when a training staff member asks for a volunteer
- ✧ To members of the first team to volunteer to give their presentation
- ✧ To someone who gives a good answer to a difficult question
- ✧ To members of the team with the best presentation

Auction

During the training, trainees use their WLS \$ to purchase items sold at “auction.” Training staff and local businesses and organizations can donate items for the auction. Also check with your local 4-H Extension office to see if they have any memorabilia, curricula, or other items they can give you. It is best to have at least as many items as there are participants.

Suggested auction items are:

- ✧ Field guides
- ✧ Popular 4-H natural science curricula

- ✧ 4-H mugs
- ✧ 4-H T-shirts
- ✧ Native plant posters
- ✧ Plant press
- ✧ Plants

To be fair to everyone, don’t let trainees pool their money to buy an item. Each trainee can spend only what he or she “earns.”

Display all the auction items on a table throughout the training, so trainees can see what they might want to bid for.

Conduct a quick auction right after breaks, at the beginning and end of the day, or between sessions while the next training team member is setting up. Make the auction fun and playful. It lets people relax a bit and is a great way to help manage transitions between sessions.

Managing transitions

Getting a group of people to shift from one activity to the next or to move from place to place can sometimes be difficult. With your training team, think through each of the times trainees change activity or place. If you are shifting to a different activity, how will you make the transition? If you are moving to another place, how long does it take to walk there?

Here are some ideas for managing transitions while maintaining a pleasant and engaging atmosphere.

- ✧ Choose a member of the training team to be the timekeeper. It is his or her responsibility to keep the group on schedule.
- ✧ Bring a small, battery-operated clock, and keep it on the registration table. All training team members synchronize their watches to this clock, and the timekeeper uses it for keeping time.
- ✧ Use recorded bird calls, nature sounds, or music as the signal for people to return to their seats and the training session.
- ✧ Training staff can move around through the group to encourage people to return to their seats after a break or activity.
- ✧ Award WLS \$ to people who are ready to start on time.

Assign trainees to groups before they arrive the first day. A simple way to do this is to buy small wildlife stickers and put one on each name tag. For a group of 30 trainees, you will need no more than eight small teams. So, choose eight different sticker designs. When

it's time for trainees to split into their small groups, ask them to join the others who have the same wildlife sticker on their name tag.

You can make different numbers of groups by combining sticker designs together (for example, spiders, ladybugs, butterflies, and worms in one group and bears, beavers, raccoons, and squirrels in another group). This technique can make breaking into smaller groups less time consuming.

Be sure all members of the training team know ahead of time how this strategy works.

Communicate with core training staff

Encourage your core training staff (training team) to mingle with trainees and participate in the training. In addition to their regular responsibilities teaching some of the sessions, involve the training team in as many aspects of the training as possible. Jobs to divide among training team members include conducting the auction, keeping track of time, setting out snacks, and leading the opening welcome each day.

Take 10 to 15 minutes each morning before the training begins to review the daily schedule and confirm where training sessions will be held, who will be timekeeper, how the groups will be divided, what additional help each person may need, how much time they need to set up their sessions, and any other business of the day. Introduce the core training team at the beginning of Day 1.

Be sure all training team members know of any adjustments to the training schedule that are made along the way.

It is important to take a few minutes with your team at the end of each training day to debrief, identify any issues or concerns to resolve before the next day, and review the next day's schedule.

Supplies and Equipment Checklist

Gather the following supplies and equipment before the training. Sometimes it may be necessary to rent a van or use several cars to transport all the supplies and equipment you'll need.

Each session outline in chapters Day 1, Day 2, and Day 3 includes a list of equipment and supplies needed.

Registration table

- ✦ From Appendix B (under "Day One"):
 - Training sign-in sheets (one for each day)

- Name badge registration form and sample name badge—how each person wants their name to appear on their permanent name badge (i.e., Ms. Smith, Maggie Smith, Ms. Maggie Smith)
- 4-H Photo Release forms (one per person) (if you plan to take pictures)

✦ From Appendix C:

- WLS \$ (make \$1,000–\$2,000)
- ✦ Cash box
- ✦ Receipt book
- ✦ Prepared name tags for the training (See the sample name tag in Appendix B.)
- ✦ Copies of the *4-H Wildlife Stewards Volunteer Handbook* and *Project Certification Handbook*. (See Appendix D for how to order.)
- ✦ Optional: 3-inch three-ring binders with pockets and clear plastic cover for inserting the *4-H Wildlife Stewards Volunteer Handbook* and its cover and binder label
- ✦ 4-H Wildlife Stewards Habitat Education Site Toolkit DVD ("Toolkit DVD"). (See Appendix D for how to order.)
- ✦ Extra training agendas
- ✦ Timekeeper's clock
- ✦ Recorded bird calls or nature music
- ✦ Tablecloths
- ✦ Maps of facility grounds (if necessary)

You also will need to prepare (copy and 3-hole punch) and have on hand the following resources and publications.

- ✦ From Appendix B (under Day One or Day Three):
 - Volunteer Log Sheet
 - 4-H Member School Enrollment Form (contact your local 4-H office to find out what forms they require)
 - Training evaluation forms (do not 3-hole punch)
 - Certificates of Completion (do not 3-hole punch). You also can order these in color from the 4-H Wildlife Stewards Oregon office (see Appendix D).
 - Oregon 4-H Volunteer Service Application, Leader Enrollment Form, and registration

materials. (Each state 4-H office has its own leader application and enrollment forms.)

- Program Expectations and Commitment form (reproduced from *Oregon 4-H Wildlife Stewards Volunteer Handbook*, page 8)
- ✧ 4-H Wildlife Stewards contact list (contact information for your training team, the local 4-H office, and your local partners)
- ✧ Native plants information and resources (may be different in each state)
- ✧ Wildlife species information and resources (may be different in each state)
- ✧ Local 4-H publications catalog and procedure for ordering curricula
- ✧ Local school district guidelines
- ✧ Information and forms for course credits. Contact your university extended campus director to inquire about graduate professional credit hours for trainees interested in course credits.

In addition to these materials, you also need to have on hand information on how to start a 4-H club or group in your area and your state guidelines for reporting child abuse. See the following Oregon State University Extension 4-H publications on the OSU Extension Service 4-H publications website at extension.oregonstate.edu/catalog/4h/

- ✧ *Starting a 4-H Club or Group* (4-H 0272L). How to start a 4-H after-school club.
- ✧ *For the Well Being of Youth and Adults* (4-H 0258L; also available in Spanish—*Para el bienestar de jóvenes y adultos* (4-H 0258L-S). State guidelines for working with youth, and how to report child abuse.

Resources to share

- ✧ Sample 4-H Natural Sciences curriculum
- ✧ Relevant Extension natural sciences curricula
- ✧ Flyers advertising next 4-H Wildlife Stewards Training
- ✧ 4-H Wildlife Stewards brochures
- ✧ 4-H Wildlife Stewards press packet
- ✧ Wildlife planting guides
- ✧ 4-H and Extension videos
- ✧ Education kits to lend

- ✧ Prizes and training auction items
- ✧ Resource directories of local organizations and supportive businesses
- ✧ 4-H Wildlife Stewards T-shirts

Equipment

- ✧ 4-H Wildlife Stewards banner
- ✧ Digital camera
- ✧ Extension cord
- ✧ Laptop computers (2 or 3)
- ✧ Data projectors (2 or 3)
- ✧ Speakers
- ✧ Surge protector
- ✧ Education kits
- ✧ TV/VCR
- ✧ Flip chart
- ✧ Slide projector
- ✧ Overhead projector (if needed by guest trainers)

Teaching supplies

- ✧ Overhead markers
- ✧ 3-hole punch
- ✧ Box of markers, pencils, and pens
- ✧ Clipboards
- ✧ Post-it® pads
- ✧ Notecards
- ✧ Tape
- ✧ Roll of string

Supplies for refreshments

Bring any of these not provided by the facility.

- ✧ Paper plates
- ✧ Paper cups
- ✧ Napkins
- ✧ Plastic utensils
- ✧ Sugar
- ✧ Coffee
- ✧ Tea
- ✧ Creamer
- ✧ Coffee stirrers
- ✧ Snacks and drinks

4-H Wildlife Stewards Sample Training Schedule

Location _____

Friday, _____ (Date)

Time	Duration	Speaker	Content
			Elements of a Successful Wildlife Habitat Project
7:30 a.m.	15 minutes		Coffee service set up and staff team briefing meeting
7:45	15 minutes		Arrival and sign-in
8:00	90 minutes		Welcome and Introductions
9:30	15 minutes		Break
9:45	75 minutes		The Science Inquiry Model
11:00	1 hour		4-H Wildlife Stewards Program Overview
12:00 noon	45 minutes		Lunch
12:45 p.m.	25 minutes		School District Guidelines
1:10	2 hours		Place-based Learning
3:10	15 minutes		Break
3:25	1 hour		Creating Your Habitat Team
4:25	30 minutes		Keys to Success (video and game)
4:55	5 minutes		Wrap-up and Closure
6:30			Dinner for overnights

Saturday, _____ (Date)

Time	Duration	Speaker	Content
7:45 a.m.	15 minutes		Coffee service set up
8:00	5 minutes		Arrival and sign-in
8:05	5 minutes		Welcome and transition
8:10	75 minutes		Principles of Wildlife Management
9:25	2.5 hours (includes 15-minute break)		Wildlife for Your School Habitat
12 noon	45 minutes		Lunch
12:45 p.m.	50 minutes		Curriculum Lessons for Your Habitat
1:35	60 minutes		Native Plants for Your Habitat
2:35	15 minutes		Break
2:50	75 minutes		Mapping and Inventory of Your Site
4:05	50 minutes		Lessons for the Habitat
4:55	5 minutes		Wrap-up and Closure
6:30			Dinner for overnights

4-H Wildlife Stewards Sample Training Schedule—continued

Sunday, _____ (Date)

Time	Duration	Speaker	Content
7:45 a.m.	15 minutes		Coffee service set up and staff team briefing meeting
8:00	10 minutes		Welcome and transition
8:10	60 minutes		Two concurrent sessions: Working with Youth: Rights and Responsibilities (community volunteers) Science Investigation in the Habitat (teacher volunteers)
9:10	50 minutes		Project Certification
10:00	15 minutes		Break
10:15	70 minutes		Sustaining Your Habitat Project (rotate 3 groups with 20 minutes at each topic and 5 minutes in between) First session <ul style="list-style-type: none"> • Project Notebooks • Habitat Signage • School Bulletin Boards
11:25	45 minutes		Lunch
12:10 p.m.	70 minutes		Second session (as above) <ul style="list-style-type: none"> • Discouraging Vandalism • Summer Maintenance Plan • Student Journals and Data Sheets
1:20	1 hour and 25 minutes (includes a 15-minute break)		Third session <ul style="list-style-type: none"> • Writing Grants to Support Your Project • 4-H After-school Clubs • Promoting Your Program
2:45	60 minutes		Science Inquiry Presentations
3:45	60 minutes		Program and Course Evaluation, Graduation, and Next Steps
4:45	15 minutes		Trainees depart for home



Day One—Keys to Success



The first day of the training course sets the tone. “Keys to Success” gets participants excited about the project, prepares them for what they can expect when they become 4-H Wildlife Stewards, and outlines some of the important things to consider to ensure a successful project.

On Day One of training, participants will learn:

- Basic steps for designing and leading science inquiry lessons for students
- How to develop a successful project
- The role of the 4-H Wildlife Steward, and program expectations

Day One Training Schedule

Notes for trainers

Throughout the training, model the teaching style and methods you expect volunteers to use when they work with youth. Engage participants in hands-on activities, honor and teach to different learning styles, and encourage questions and discussion.

Remember that the trainer’s role is to facilitate the group’s learning. All learn from one another. Everyone brings something to this training, whether it is experience as a classroom teacher, gardening skills and knowledge, or expertise in natural sciences. Many participants who come to 4-H Wildlife Stewards (4-H WLS) trainings are Extension Master Gardeners, retired foresters, environmental educators, or other experts. Be

sure to tap into participants’ expertise during the training, and encourage networking and sharing at breaks, during lunch, and between sessions.

Also encourage participants to bring and share resources from their school or organization. Set up tables in the training room where they can display their materials.

If you choose to modify and adapt this training schedule, note that the Science Inquiry lesson is introduced early, so that participants have enough time to conduct their science experiment and collect data over the course of the training.

If you decide to offer this 24-hour course as a series of half-day sessions, it would be best to end the first day after the program overview.

Schedule

15 minutes	Registration and sign-in
1½ hours	Welcome and Introduction
15 minutes	Break
1¼ hours	Science Inquiry
1 hour	4-H WLS Program Overview
45 minutes	Lunch
2 hours (includes 15-minute break)	Using the Habitat Education Site as an Outdoor Classroom
25 minutes	School Guidelines
1 hour	Creating a Habitat Team
30 minutes	Keys to Success
5 minutes	Wrap-up and Closure

Day One presentation materials from this Trainers Guide

Appendix A

Trainer scripts (correspond to Oregon PowerPoint presentations):

- ↳ Welcome and Introduction
- ↳ Teaching Science through Experiential Learning
- ↳ Program Overview
- ↳ Using the Habitat Education Site as an Outdoor Learning Lab
- ↳ Public Schools Guidelines
- ↳ Keys to Success

Appendix B

Handouts:

- ↳ 4-H Member School Enrollment Form from your state or area
- ↳ 4-H volunteer application from your state or area
- ↳ 4-H Wildlife Stewards Member School Application
- ↳ 4-H Wildlife Stewards Volunteer Log Sheet
- ↳ Annual Habitat Education Site Review Form
- ↳ 4-H Science Inquiry worksheet
- ↳ Balloon Plants—How to Make Your Own
- ↳ Program Expectations and Commitment Form

Appendix C

Games:

- ↳ Habitat Team role-play cards
- ↳ Habitat Team school scenarios
- ↳ Habitat Team wildcards and roadblock cards

Welcome and Introduction

Scheduled time

1½ to 2 hours (flexible for larger groups, if needed)

Goals

Participants will:

- ↳ Meet the training staff and other training participants
- ↳ Learn the goals and objectives of the training course
- ↳ Learn the training schedule for the course
- ↳ Get a general overview of the program

AV equipment

- ↳ Data projector and computer
- ↳ DVD or VHS projector

Presentation materials

- ↳ From Appendix A:
 - Trainer script: "Welcome and Introduction"
- ↳ PowerPoint slides: "Welcome and Introduction"
- ↳ Video: "4-H Wildlife Stewards Overview," from the Toolkit DVD
- ↳ Common Wildlife cards
- or
- ↳ Ecology Flashcards (See Appendix D for ordering information.)
- ↳ Flip chart and markers
- ↳ WLS \$

Handouts

- ↳ Training schedule

Procedure

Advance preparation

These tasks may take a couple of hours to complete.

- ↳ Photocopy each denomination of WLS \$ on a different color paper. Make 10 to 12 copies of each page, and cut. Have it on hand as participants arrive.
- ↳ Photocopy the training schedule, one for each trainee.
- ↳ Make the Common Wildlife cards. Cut out pictures of common local wildlife and paste each

one on a square of cardboard. Put each wildlife card on a string—long enough to pull over the head—so each participant can wear one.

- ✧ Have coffee and snacks ready before the first participants arrive.
- ✧ Set up the training room. Have the first PowerPoint slide on the screen as participants arrive. (See "Creating the Ideal Learning Atmosphere," page 13.)
- ✧ As participants arrive, have each sign in and get his or her name tag. Give each person his or her training materials (see page 16) or copies of any unfinished paperwork, and WLS \$20. (Award extra WLS \$ to those who arrive early.)

Introduction to the training

5–10 minutes

- ✧ Show slide 1 ("Welcome and Introduction"). Welcome the participants, and follow the trainer script.
- ✧ Show slide 2, and follow the trainer script.
- ✧ Introduce each of the core training staff and briefly explain their roles. (Have staff members stand when their name is announced.)
- ✧ Show slides 3, 4, 5, and 6, and proceed as above, following the trainer script.
- ✧ Briefly review the four goals again for emphasis and summary.
- ✧ Tell the group:

Throughout this training, we will model and demonstrate the 4-H hands-on learning process. Many of the lessons and activities we use during the training you can use when you begin your work with youth at their school.

Housekeeping announcements

10–15 minutes

- ✧ Training facility
 - Introduce the facility host and have him or her give a 5-minute introduction
 - Flora and fauna of the site
 - Location of bathrooms
 - Breaks and snacks
 - Meal procedures
 - Vegetarian and other special meals
 - Specifics for overnight guests

✧ Training program

- Sign in each day so the training staff knows who is in attendance.
- Leave name tags here each day.
- Leave name-tag holders at end of training for reuse.
- Advise whether or not trainees may leave notebooks in the training room overnight.

✧ WLS \$ and auction. Explain:

Each of you were given some WLS \$ when you signed in this morning. During the training, the training team will award more WLS \$ for actions such as returning from break on time, being in your seat ready to start on time, and participating in discussions.

- ✧ Show them the table where the auction items are displayed.

Following breaks or meals, or between sessions, the training staff will hold "auctions" to "sell" items from the auction table. Any of you can "buy" an item in the auction with your WLS \$. But, you are not allowed to pool your money with others to buy an item.

Get-acquainted activity (two options)

20–30 minutes

Option One: Who Am I?

- ✧ Explain the rules of the game:

We are going to come around and put a picture of a local wild animal or plant [or an ecology card] on each of you, hanging down your back. You are not allowed to look at the card!

You must figure out what animal or plant is on your back by asking "yes" or "no" questions. You may ask anyone in the room. You must introduce yourself first, and you may only ask two questions of each person before moving on.

When you figure out who you are, switch your wildlife card to hang in front, so we know you're done.

- ✧ Allow about 15 minutes for participants to mingle and play the game. If at the end of 15 to 20 minutes there are still some people who have not figured out who they are, let the group give hints.

↳ Debrief the activity. Tell the group:

You can play this game with kids of all ages. How might you adapt the game to play it with kids? How would you adapt it for different age groups?

You can repeat the game often with kids, setting up different parameters. For example, they could only ask questions that relate to the animals' habitat.

This is a good activity for helping kids learn to ask good questions (the sign of a good scientist!).

↳ Have participants keep their cards and return to their seats.

Option Two: Group Introductions

↳ Prior to this activity, divide the group into smaller teams based on the stickers on their name tags. Decide ahead of time which groupings of stickers you will use. Ideally, each team should be four to five people. In the interest of time, it is best not to have more than six teams; but, determine the number of teams by the number of participants.

↳ Tell the group:

You have 7 minutes to complete this activity. We will award WLS \$ as a prize to the top teams!

Find the others in the room who have the same wildlife sticker on their name tag as you. When you find each other, find three things you all have in common. These things cannot be obvious (such as, "we are all women"). Then, as a team, prepare to present what you have in common to the rest of the group: you must ALL say all three common facts in unison. Teams that add hand and body movements or songs will be judged more favorably.

The core training staff members will be the judges. Judges will be looking for originality of things in common and creativity of the presentation.

Does everyone understand the rules? You have 7 minutes. Go!

↳ Give a 1-minute warning at 6 minutes. At 7 minutes, announce that time's up.

↳ Ask the group:

Which team volunteers to go first?

You might want to give each team member of the first group WLS \$5 for volunteering. Show the group where the judges are sitting.

↳ Allow 3 to 5 minutes after each team's presentation for the judges to confer. During each judges' conference, debrief the game. Tell the group:

This is a good ice-breaker activity for children as well. How would you play this game with children? What adaptations would you make? How could you adapt this to include wildlife?

↳ The judges present their awards to the teams. Each team gets an award of some sort (for example, most creative, funniest, best team effort). Everyone wins! As the awards are announced, give each team member some WLS \$. Give extra WLS \$ to an outstanding team.

Individual introductions to the group

20 minutes

↳ Show slide 7: Ask each person (including staff) to introduce him- or herself and answer each of the questions listed on the slide.

↳ Have a training staff member record each participant's answers to the last question on a flip chart.

↳ After everyone has spoken, highlight common themes and suggestions from the list. If there is a desire listed that the training does not cover, acknowledge this, and recommend resources that might provide the information they seek.

↳ Tell the group:

We will post this list and review it throughout the training to make sure we are covering the topics you want to learn.

Training course overview

10 minutes

↳ Review slides 8–10. Indicate some highlights of each session as time allows. Point out where participants' specific training wishes might be covered.

Show video: "4-H Wildlife Stewards Overview"

15 minutes

↳ Tell the group:

We'll now show the video, "4-H Wildlife Stewards Overview." The DVD is included in your training materials [if your state or local program chose to

purchase them]. It's a good promotional tool you can use when you meet with potential community partners, school staff, or parents.

Break

15 minutes

- ↳ Tell the group it's time for a 15-minute break.
- ↳ Honor and respect that participants need to take breaks. If a session runs over into break time, make up the time in another session—do not shorten or skip the break. Tell the group:

We have a full schedule, so we will start sessions on time. We'll call you back from break with this signal: [play some music, the sound of a bird call, or whatever you plan to use].

- ↳ It is important and well worth the investment to have good quality snacks, coffee, and beverages for breaks. Don't forget to include healthy snacks like fresh fruit as well as snacks that just plain taste good, like coffee cake or muffins.
- ↳ Encourage participants to begin networking with each other during the break.
- ↳ A good way to get everyone back from break and ready to start is to announce that you will give WLS \$ to those who are in their seats and ready to go at the designated time.
- ↳ Once you call everyone back to their seats and award the WLS \$, conduct a quick auction (i.e., one item). If people are still mingling and not yet in their seats, this will both bring their attention back to the trainers and afford some fun to the group.

Science Inquiry

Scheduled time

1¼ to 1½ hours (flexible for larger groups, if needed)

Goals

Participants will:

- ↳ Understand the basic principles of how to create and design a science experiment
- ↳ Understand the 4-H Science Inquiry model
- ↳ Design a science inquiry project

AV equipment

- ↳ Data projector and computer
- ↳ DVD or VHS projector

Presentation materials

- ↳ From Appendix A:
 - Trainer script: "Teaching Science through Experiential Learning"
- ↳ From Appendix B:
 - "4-H Science Inquiry" worksheet
 - "Balloon Plants" instructions
- ↳ PowerPoint slides: "The Science Inquiry Learning Model"
- ↳ Video: "Teaching Science through Experiential Learning," from the Toolkit DVD
- ↳ One sample healthy plant and one sick plant (same plant species)
- ↳ Sample completed balloon plants
- ↳ Clear balloons
- ↳ Color balloons
- ↳ Potting soil
- ↳ Other types of soil
- ↳ Plastic pop bottles for funnels
- ↳ Newspaper
- ↳ String
- ↳ Markers
- ↳ Measuring cups
- ↳ Radish seeds
- ↳ Other seeds
- ↳ Heat lamps
- ↳ Food coloring
- ↳ Rulers

- ✧ Construction paper
- ✧ Poster paper
- ✧ Thermometers
- ✧ Weigh scale

Procedure

Advance preparation

One week before:

- ✧ Prepare a balloon plant according to instructions.
- ✧ Buy two plants of the same kind. Put one in the microwave for 1 to 2 minutes to dry it out.

Before class:

- ✧ Photocopy the "4-H Science Inquiry" worksheet and "Balloon Plants" instructions, one of each per team.
- ✧ Have ready at each worktable: cups with soil, cups with water, newspaper, string, balloon, 12 to 20 radish seeds, measuring cups, and markers. Provide supplies for every two participants.

Introduction

10 minutes

- ✧ Show slide 1.
- ✧ Show the two plants, one healthy and one sickly, so all can see. Ask:
What do you see? Why do you think these two plants look different?

✧ After several responses, ask:

What do plants need to live? (Answer: water, minerals, light, and carbon dioxide)

✧ Explain:

One of the roles of the 4-H Wildlife Steward is to help children gain new skills and knowledge in science. Through this program, students also improve their attitudes about science.

✧ Ask:

What is science?

- ✧ After several responses, show slide 2. Follow the trainer script, and read the slide aloud.
- ✧ Show slide 3. Follow the trainer script, and read the slide aloud.
- ✧ Show slide 4. Follow the trainer script, and read the slide aloud.

Science activity

15 minutes

✧ Show slide 5. Explain:

Now we'll do a hands-on science inquiry activity in which you'll set up a science experiment. We will use the 4-H Science Inquiry Model. Choose a person seated next to you to work with, making a team of two.

✧ Distribute the "4-H Science Inquiry" worksheet and "Balloon Plants" instructions, one each per team.

✧ Explain:

We are going to review and then work with the first step of science inquiry: Experience.

✧ Show slide 6. Follow the trainer script, and read the slide aloud.

✧ Explain:

Write the name of the activity—"Balloon Plants"—and names of your team members on the third page of the worksheet.

Then, look at the Balloon Plants instructions. Who will read step one aloud? Now, teams, complete step one.

✧ Do the same for each of the eight steps outlined in the Balloon Plants activity. Be sure to model teaching as if you were working with a group of students.

Notes

- ★ Be sure to emphasize tying the string (or ribbon) below the knot of the balloon to ensure that air does not leak out (step 6).
- ★ Be sure to emphasize careful and correct measurements.
- ★ Do not give trainees suggestions on where to hang their balloon. Let them decide.
- ★ It is a good idea to have them write their names on the balloon.
- ★ As the trainees are making their balloon plants, note some of their comments and responses as they work together.

Debrief the science activity

5 minutes

✧ Review the first step of the science inquiry model. Explain:

We just completed the first step of the Science Inquiry Model: Experience. Now, let's proceed to step two of the model: Share.

👉 Show slide 7. Read the slide aloud, and follow the trainer script.

👉 Bring out sample balloons. Explain:

Let's complete steps 2 and 3.

Imagine that this is your balloon, 1 week from now. What are your reactions and observations? Be sure to give your students enough time for discovery. You might ask:

- What did you see?
- What did you notice?
- What changed? What is the same?
- Why did you put your balloon where you did?

Notes

Some things that students might notice over time with their balloons are:

- ★ Build-up of condensation
- ★ Different plant growth in different balloons
- ★ Some balloons have only a few sprouts while others have lots.
- ★ Some plants are green while others are more yellow.

Design a science experiment

20–25 minutes

👉 Trainees stay in their teams of two and partner with another team of two to create a team of four.

👉 Explain:

Now let's design a science investigation. This is the Process stage.

👉 Show slide 8. Follow the trainer script.

👉 Read aloud:

- What do you want to tell me about your experience?
- What else would you like to know about it?
- What else might you try?

👉 Lead a discussion in which the trainees share their answers to "What else would you like to know about it?" and "What else might you try?" For example, trainees might want to know if temperature affects seed germination, or if seeds will grow in different types of liquid. They might want to try

using balloons of a different color to see if color affects plant growth. Allow enough time so that everyone who has an idea can share it.

👉 Show and review slide 9.

👉 Explain:

A hypothesis is a proposed explanation made on the basis of limited evidence as a starting point for further investigation.

A control is a standard of comparison in scientific investigation. In other words, controls are the things that do not differ throughout the experiment. For example, perhaps you want to test the effect of different color balloons. In order to do that, you'd have to use the same type and amount of soil, water, and seeds in each balloon. The balloons also would have to receive the same amount of light and air.

👉 Ask:

Why is it important that procedures are clearly and accurately documented? (Answer: So another person can duplicate the exact experiment and get the same results, which validates the findings.)

👉 Participants design a simple investigation of something more they want to learn about balloon plants.

👉 Ask each team to state what they will investigate.

👉 Explain:

Over the next 2 days, each group must decide what data to collect, how to collect it, when to collect it, and how often. Be prepared by the end of the training to give a team presentation on your science investigation.

👉 Show and explain slides 10 and 11.

These are the two last stages of the Experiential Learning Model, the two most often ignored. Be sure to include them in your team presentation.

👉 Display the materials that participants can use in their investigation (i.e., different color balloons, different soils, different seeds, heat lamps).

👉 Allow time for teams to decide on and set up their investigation using the Science Inquiry Learning Model worksheet. Help teams as needed. Pay careful attention to whether each team has set up a carefully controlled experiment.

Debrief science investigation

15 minutes—includes time for clean-up

↳ Brainstorm with the group:

How would you teach this activity to different age groups? What would you change? What would you do differently?

↳ Show slides 12, 13, 14, and 15; follow the trainer script, and read the teaching tips aloud.

↳ Clean-up time. Brainstorm with the group:

How would you organize clean-up with students? with different age groups?

Model one of the methods they suggest.

Wrap up

8 minutes

↳ Show the video *Teaching Science through Experiential Learning*. Explain:

Using the 4-H Experiential Learning Model to teach science can extend beyond the classroom into the Habitat. This video shows how one school is using this model with students in their Habitat Education Site.

4-H Wildlife Stewards Program Overview

Scheduled time

1 hour

Goals

Participants will:

↳ Learn the key components of the 4-H Wildlife Stewards Program

↳ Understand the expectations and requirements for 4-H Wildlife Stewards and 4-H Wildlife Stewards Member Schools, and what support is available

AV equipment

↳ Data projector and computer

Presentation materials

↳ From Appendix A:

○ Trainer script: "Program Overview"

↳ PowerPoint slides: "Program Overview"

↳ Balloons—one for each trainee

↳ Small slips of paper (4 inches by 2 inches)—one for each trainee

↳ Straight pins—one for each trainee

Handouts

↳ From Appendix B:

○ Program Expectations and Commitment form

○ Member School Application

○ 4-H In-school Enrollment Form

○ Annual Habitat Education Site Review Form

○ 4-H Wildlife Stewards Volunteer Log Sheet

Procedure

Advance preparation

↳ Review the PowerPoint presentation. Make adjustments to content for your local area, if needed.

↳ Have the PowerPoint presentation set up and ready to go.

↳ Photocopy the handouts, one for each trainee.

Introduction

5–7 minutes

↳ Explain to the group the goals of this session.

In this session, our goals are:

○ That you learn the key components of the 4-H Wildlife Stewards Program

○ That you understand the expectations and requirements for 4-H Wildlife Stewards and 4-H Wildlife Stewards Member Schools, and what support is available

↳ Pass out balloons, straight pins, and a strip of paper to each participant. Explain:

Think of one question you have about the 4-H Wildlife Stewards program that you really want answered. Choose only one question, and be sure it relates only to how the 4-H WLS program is conducted, managed, and supported. For example, good questions might be "What does 4-H stand for?" "How do I pay back my 50 hours?" "Does our Habitat Education Site have to be on school grounds?". This is not the time for a question such as "What are the best plants for my Habitat?".

Write your question on the slip of paper. Then, fold it up, and put it in the balloon. Blow up the balloon, and tie the end in a knot.

- ✧ After everyone has completed this task, explain:

During the next 50 minutes, we'll go over some of the expectations, logistics, and requirements of the 4-H Wildlife Stewards program. If your question is answered any time during this presentation, pop your balloon with the pin.

Our goal is to have every balloon popped by the end of this presentation. If there are any unpopped balloons left at the end, then one of the trainers will pop them one at a time and answer the question inside.

4-H and the Wildlife Stewards Program

20 minutes

- ✧ Many 4-H Wildlife Stewards are new to 4-H. Take a few moments to explain what 4-H is, how the program is funded, and what the four H's stand for.
- ✧ Go through the PowerPoint slide presentation and clarify each slide where needed. Follow the trainer script with each slide.

During this time (hopefully) many balloons will be popping.

Program expectations and commitment

10 minutes

- ✧ Distribute copies of the 4-H WLS Program Expectations and Commitment form, one to each trainee.

- ✧ Explain:

This is the 4-H WLS Program Expectations and Commitment form. If you agree to the program expectations and commitment, sign the form and give it to the training coordinator today. On page 8 of your 4-H WLS Volunteer Handbook, you'll see a copy of this form for your reference. Share it with your school principal and staff so they know what is expected of them.

- ✧ Review with the group each item on the Program Expectations and Commitments form.
- ✧ Keep signed forms with trainees' files.

Debrief

10 minutes

- ✧ Collect the balloons that were not popped and answer those questions.

- ✧ Explain:

For future reference, much of the information we've covered today is in Section I of your 4-H WLS Volunteer Handbook.

Lunch

Allow at least 45 minutes for lunch. Encourage participants who finish their lunch early to go outdoors to explore and get some fresh air. However, emphasize that the next session will start on time.

Bring everyone back with the signal, and give WLS \$ to those who are in their seats and ready to go. Lead off with another short auction.

Using the Habitat Education Site as an Outdoor Classroom

Scheduled time

2 hours

Goals

Participants will learn:

- ✧ What place-based learning is
- ✧ How to use a Habitat Education Site for outdoor learning

Location

- ✧ Training room and outdoors
- ✧ Alternative plan: a tour of nearby schools with school gardens

AV equipment

- ✧ Data projector and computer

Presentation materials

- ✧ From Appendix A :
 - o Trainer script: "Using the Habitat Education Site as an Outdoor Learning Lab"
- ✧ PowerPoint slides: "Using the Habitat Education Site as an Outdoor Learning Lab"

- ✧ Video: "Sample Habitat Education Site Projects," from the Toolkit DVD
- ✧ Sticky-note pads (3- by 5-inch size works best)
- ✧ Markers
- ✧ Flip chart easel and pad
- ✧ Copies of the curriculum lessons for the education station, one for each participant. Be sure your handouts are 3-hole punched so participants can put them in their notebook. (See "Education stations | Advance preparation," page 31, for instructions on selecting curricula.)
- ✧ Materials and supplies for the two education stations. (See "Education stations | Advance preparation," page 31.)
- ✧ Two plastic boxes, each labeled with the name of the education station activity.
- ✧ WLS \$
- ✧ School tour option:
 - If your team decides to arrange a tour of nearby schools for this component of the training, provide information about the specific school gardens the participants will visit. Have a map with directions to the school(s) available for drivers.

Resources

- ✧ *Oregon 4-H Wildlife Stewards Volunteer Handbook:*
 - "Sample Projects" (pages 13–16)
 - "Place-based Learning" (pages 67–68)

Procedure

Advance preparation

Education stations

- ✧ Make copies of the curriculum lessons.
- ✧ Set up two education stations outside. See page 31 for preparation detail.
- ✧ Decide how you will divide the group in two for the activity.

"Trivia Dash" game

- ✧ Find space in the training room to play "Trivia Dash." Rearrange the room, if necessary.
- ✧ Decide how you will divide the group into teams of five for the Trivia Dash. Teams can be

new groupings or the same as the "group introductions" get-acquainted activity.

- ✧ Set up the flip-chart easel and pad. Mark off the flip-chart paper to make large boxes, one for each team. Label each box 1, 2, 3, etc.
- ✧ Mark a "starting line" on the floor with masking tape. Depending on the size of the room, allow at least 20 to 30 feet from the starting line to the flip-chart easel. Be sure there are no obstructions between the starting line and the easel.
- ✧ Designate a training team member as "banker."

School garden tour (alternative plan)

- ✧ Contact the school and key teachers and/or 4-H Wildlife Stewards at least 1 month prior to the training. Work with the teachers and/or volunteers to identify students who can give a 15 minute presentation/tour of their school site. Depending on the size of the school project, the number of schools you visit, and the travel time needed to get to the schools, plan a minimum of 20 minutes at each school. You can allow more time if you'll be visiting only one school, or if a school has an extensive garden site. Allow at least 10 minutes for workshop trainees to ask questions of students, teachers, and volunteers.

You may need to arrange buses or vans to transport workshop trainees on the tour. With the school team, arrange where the group will begin their tour and where to park vans, buses, or cars.

Introduction

5 minutes

- ✧ Show slide 1. Explain:

In this session, you'll learn what place-based education is, why place-based education is important, and how Habitat Education Sites are used as outdoor classrooms.

"Trivia Dash" game

15–20 minutes

- ✧ Divide the group into teams of five. Explain:

Let's play a fun, educational game that tests your knowledge of place-based education and your ability to work effectively as a team. The game is called "Trivia Dash." Prizes are WLS \$!

You have 3 minutes to choose a team name, a team recorder, and a team runner. The team name should be no more than two words.

- ↳ Have each team tell their name to the rest of the group and introduce their recorder and runner. Then explain:

Team recorders, write your team name on 15 sticky notes. Write small enough so there is room to write the answers to the game questions.

Each team choose your own area in the room. Team runners must not go beyond the starting line.

Here are the rules of the game:

1. We will read a question that has a numeric answer.
2. Each team quickly decides the best answer. The team recorder writes their answer on one of the sticky notes.
3. The team runner then runs the answer to the easel board. Runners can choose to start from anywhere behind the start line.
4. The first runner to reach the easel posts his/her answer in box #1, the second runner posts his/her answer in box #2, etc.
5. Training team members will make the call when it's close.
6. Members of the first team to get the right answer each win WLS \$5. If no one gets the right answer, whoever comes closest to the answer will win. In the case of a tie, both teams will be awarded WLS \$.
7. It's important to be quick, but it's also important to give the right answer.

- ↳ Show slide 2. Read the question aloud.
- ↳ When all teams have posted their answers, show slide 3 and read the answer.
- ↳ Read through the teams' answers in the order they were posted to find the first correct answer.
- ↳ When the winning team is announced, the "banker" gives WLS \$5 to each team member.
- ↳ Show slide 4, read the question, and continue in this manner until all nine questions are answered (through slide 19).
- ↳ If one or two teams are dominating the game, or one team is not winning any WLS \$, revise

the rules slightly so everyone can win and feel success.

Debrief "Trivia Dash"

10 minutes

- ↳ Show slides 20–24 and review the key points of place-based learning.

- ↳ Ask:

Is anyone using place-based education with students in a school setting? How are you using it? What would you recommend to others from your experience?

Did any of the statistics you learned in this game surprise you?

What is one thing you would want to integrate in your work with students on this project?

- ↳ During the discussion, one of the training team members sets up the "Sample Habitat Education Site Projects" video.

Show video

20 minutes

- ↳ Explain:

Here are some strategies you can use to turn the Habitat Education Site into an outdoor classroom.

- ↳ Show the video.

Education stations

50 minutes

Advance preparation

- ↳ Select two lessons from the 4-H natural science curricula for your region or state, or visit the 4-H Wildlife Stewards website at www.wildlifestewards.4h.oregonstate.edu (choose "Education Tools," and then "Sample Lesson Plans").

Good activities and lessons to consider are:

- Insect traps
- Animal tracks
- Measuring trees
- Water quality testing
- Soil testing

- ↳ Choose lessons that are hands-on and no more than 20 minutes in duration, and that are appropriate for a group of at least 10 to

15 people. Be sure the lessons are field-based; that is, they are conducted outdoors using the natural environment of the site. For example, if your training site is next to a small pond, creek, or stream, lead a water-quality activity. If your site is next to a meadow, use the meadow for an activity. If it's near lots of trees, choose a lesson on trees.

- ✦ Gather all the materials for each lesson, including handouts, and place them in a plastic box labelled with the name of that lesson. Have each box ready at its education station.

Conducting the activity

- ✦ Divide the group in two. Explain:

If you set up education stations in your Habitat Education Site, you give teachers, students, after-school clubs, and community groups an excellent tool for making the site a place for outdoor learning. Now you'll get to do an activity that demonstrates this.

Each group will go to one of the education stations. After 20 minutes there, you'll switch to the other station.

- ✦ One member of the training team is the time-keeper. Other training team members lead each group outside to the education stations.
- ✦ At each education station, the training team member explains the following:
 - The name of the lesson
 - How they selected this lesson
 - Where they got this lesson (name of the curriculum book or source)
 - How this activity incorporates the natural surroundings
 - The materials and supplies needed to conduct this lesson (show the plastic box and its contents)
 - Special considerations for different age groups, different group sizes, etc.
- ✦ Lead the activity, leaving enough time to debrief it at the end. Ask:

How would you use this activity or adapt it for your school?
- ✦ After 20 minutes, allow the participants to take a 15-minute break. Instruct them to go to the other education station after the break.

- ✦ Repeat the activity (groups have switched education stations). Then, bring the groups together in the training room for discussion and conclusion.

Conclusion

10 minutes

- ✦ Ask:

What is one important thing you learned in this session?

What ideas or recommendations do you have for implementing this education strategy in your school?

- ✦ Point out some of the resources and materials available to participants at this training. Ask participants for other good sources of materials. Record these on the flip chart.

School tour option (alternative plan)

If your team decides to conduct a school tour during this training session, here are some helpful guidelines.

- ✦ Before loading the bus, vans, or cars, give a short talk about the school(s) that you're going to visit. Distribute any printed materials about the school's project(s).
- ✦ Give the drivers maps with directions to the schools.
- ✦ Upon arrival at the school, direct participants to the tour starting place, and then check in with the school office.
- ✦ Allow the students, teachers, and 4-H Wildlife Stewards at the school to give a tour of their project.
- ✦ Allow participants to ask questions. Some good questions to ask are:
 - If you were to do this project over, what would you do differently?
 - What has been your greatest challenge?
 - What has been your greatest success?
 - Who are some of your key partners?
 - What involvement, if any, do parents have in this project?
 - How is the site being used by teachers and students?
 - What vandalism, if any, has your school experienced with this project?
 - What are your future plans?

- How is your project maintained during the summer?
- ✧ At the end of the tour and upon your return to the training site, take a few moments to debrief the tour.
- What did you find interesting, new, or different on this tour?
- What would you take from this tour that you can apply to your own school?

School Guidelines

Goals

Participants will learn:

- ✧ How to create a Habitat Education Site in accordance with school district guidelines

Scheduled time

25–30 minutes

AV equipment

- ✧ Data projector and computer

Presentation materials

- ✧ From Appendix A:
 - Trainer script: “Public Schools Guidelines”
- ✧ PowerPoint slides: “Public Schools Guidelines”
- ✧ Sample 4-H Wildlife Stewards school sign
- ✧ Local school district’s written guidelines

Handouts

- ✧ Local school district guidelines (if possible)

Procedure

Advance preparation

- ✧ Research the local school district guidelines for creating Habitat Education Sites on school grounds. If you have them in writing, make photocopies to give to participants.
- ✧ Set up the PowerPoint presentation, “Public Schools Guidelines.”

Introduction

5 minutes

- ✧ Show slide 1. Follow the trainer script.

- ✧ Point out the following resource in the *Oregon 4-H Wildlife Stewards Volunteer Handbook*:

- “Tips for Working with Your School District Staff” (page 36).

Review school guidelines

10–12 minutes

- ✧ Show slide 1. Follow the PowerPoint presentation trainer script, and explain:

The guidelines presented here are from Oregon’s Portland School District, where the 4-H Wildlife Stewards program began. Many of these guidelines apply to other school districts as well.

- ✧ Show slides 2–15, following the PowerPoint presentation trainer script.

- ✧ Explain:

There may be other criteria defined by the building administrator, business manager, facilities supervisor, or superintendent of schools. Be sure you have all the information you need.

Steps for getting school district approval

5 minutes

- ✧ Explain:

It is always important to work with your school principal to contact the proper school district authorities for permission before you begin a Habitat Education Site project.

Here is a description of how one 4-H Wildlife Steward secured district and principal approval:

1. 4-H Wildlife Steward (applicant) approaches school principal or building administrator with idea and proposal.
2. If the principal/building administrator approves the idea, he/she forwards the proposal to the school district business manager.
3. The business manager reviews the proposal, notes issues, and forwards it to the facilities services supervisor for review.
4. The facilities services supervisor reviews the details and makes a recommendation to the business manager to accept or reject based on a list of criteria, concerns, and questions.
5. The business manager approves or rejects the proposal and sends it back to the principal/building administrator with comments.

6. The principal/building administrator gives feedback to the applicant.

If the proposal has been accepted, have fun working on your project!

If the proposal is rejected, you may choose to make changes and resubmit it to the principal/building administrator.

Conclusion

5 minutes

↳ Ask:

Have any of you already started the process of getting school district approval? What did you learn in the process?

↳ Emphasize:

It is very important to follow the school district's guidelines and keep them informed every step of the way. In many cases, the school district and grounds staff are pleased to support these projects and may even provide bark chips, tools, or technical support.

The school custodian is a very important ally in these projects. Don't create more work for him or her. If the students come in muddy from working in the Habitat, be sure you clean up. Be sure all tools and equipment are put away properly. You can build a good relationship with the school custodian if you keep him or her informed and solicit his or her advice on the best way to work together.

Creating a Habitat Team

Scheduled time

1 hour

Goals

Participants will learn:

- ↳ The importance of a Habitat Team
- ↳ Key principles for creating a Habitat Team

AV equipment

None

Presentation materials

- ↳ From Appendix C:
 - Habitat Team role-play cards (one per person)
 - Habitat Team wildcards and roadblocks
 - Habitat Team school scenarios (one per team)
- ↳ In the *Oregon 4-H Wildlife Stewards Volunteer Handbook* (4-H 3100L):
 - "Creating Your Habitat Team" (pages 31–33)

Handouts

- ↳ From the *Oregon 4-H Wildlife Stewards Project Certification Handbook* (4-H 3103L):
 - "Vision and Goals Worksheet" (pages 48–49) (one per team)
 - "Habitat Team Communication Plan Worksheet" (pages 53–56) (one per team)

Procedure

Advance preparation

- ↳ Determine how you will divide the group into teams (one option is to use the sticker on their name tag). Maximum five teams.
- ↳ Designate a separate section of the room for each team to meet. In each of the designated areas, post a notebook-size sheet of paper on which you've written the school's name and description.
- ↳ Photocopy and cut out the Habitat Team role-play cards, school scenarios, wildcards, and roadblock cards. Be sure to make the role-play cards double-sided, with the role on one side and the "agenda" (script) on the other. You need one role-play card per person.

- ✧ String the role-play cards so each player can wear one around his/her neck.
- ✧ On the back of each role-play card (the side with the "agenda"), write the name of the school to which that character is assigned. Assign one "Observer" to each "school."
- ✧ Photocopy the worksheets listed under "Handouts."

Introduction

5 minutes

Explain:

One thing we'll drill into you throughout this training is that you cannot do this alone. These projects are not meant to be run by one person—a team of people to help guide the project is essential. We call them your Habitat Team.

A Habitat Team is a core group of four to six people who help guide the project and ensure that it moves forward. They are the dreamers, the planners, and the ones who turn ideas into action. Students, school staff, community partners, and parents may all help to create and carry out the dream and vision for the Habitat Education Site project, but it is the Habitat Team that provides overall guidance for the project and lays the groundwork for creating, using, and sustaining it.

One of the first things you should do when you return to your school after this training is to gather your Habitat Team. Habitat Team members can be (but are not limited to):

- 4-H Wildlife Stewards volunteers (mandatory)
- 4-H Wildlife Stewards Member School teacher or other staff
- School principal
- School custodian
- Representative of the Parent Teacher Organization
- Active community agency partner
- Representative from the local neighborhood association
- Older student(s)

Each Habitat Team **MUST** include at least one 4-H Wildlife Steward and one representative from the school.

How you work with your Habitat Team is critical to your success.

Role play

35 minutes

- ✧ Ask one of the other trainers to assign each trainee a role. Try to give each trainee a different role from the one they play in daily life (i.e., assign a trainee who is a teacher the role of a Master Gardener). As the other trainer does this, explain:

Let's do a Habitat Team role-play exercise.

On one side of your role-play card is your role. On the other side is your "agenda." Do not reveal your "agenda" to the rest of the group. Try to portray your role as realistically as possible.

One person in each group is assigned the role of "Observer." This person takes notes on what they observe happening in the group; that is, what the group dynamics are, what is working, what is not working, where the group is getting bogged down, etc.

You have 35 minutes to find "your school" and Habitat Team, introduce yourselves to each other (as your roles), and complete the "Habitat Team Communication Plan worksheet" and Year One Goals from the "Vision and Goals Worksheet."

During your team meeting, you will be given a roadblock or wildcard. A roadblock is an unexpected situation or event that may cause the team to falter. A wildcard is an unexpected windfall for the team. The roadblocks and wildcards your team receives are actual situations that real-life 4-H WLS Habitat Teams have had to navigate. Your team must review the wildcard or roadblock and adjust accordingly.

When the 35 minutes are up, each team be prepared to present to the group the members of your Habitat Team, the name of "your school," a description of "your school," and what happened in your Habitat Team meeting.

- ✧ Ask:

Are there any questions?

- ✧ Give each team one copy of their school scenario, the "Vision and Goals Worksheet," and the "Habitat Team Communication Plan" worksheet.

- ✧ Announce that time has started.

- ↳ Trainers circulate among the teams and sit in on some of the team meetings. Trainers begin to hand out wildcards and roadblocks (at least one to each team) no sooner than 5 minutes after teams have started. If a team is making good progress, a roadblock might force them to readjust. For a team that is struggling on a particular issue, a wildcard might break through the conflict.

- ↳ After 35 minutes, call all the teams back.

Debrief

20 minutes

- ↳ Have each team report to the group (4 minutes each).
- ↳ Have the Observers report. Ask what recommendations they would make to their team based on their observations.
- ↳ Summarize the key points that each team reported. What were the common themes?
- ↳ Explain:

These school scenarios and roles were real, though the names of schools were changed.

- ↳ Ask:

What are some of the key principles you learned in this process?

How would you apply what you've learned here to your school's circumstances?

How would you bring new members into an already existing team?

- ↳ If you choose to order the *Habitat Education Site Toolkit* DVD video series for each of the participants, show them where they can find information on creating a Habitat Team on the DVD, and in the *4-H Wildlife Stewards Volunteer Handbook* and *Project Certification Handbook*.

Keys to Success

Scheduled time

30 minutes

Goals

Participants will:

- ↳ Understand the basic principles of a successful Habitat Education Site project
- ↳ Begin to develop and shape the vision for their own project

AV equipment

- ↳ Data projector and computer
- ↳ DVD or VHS projector

Presentation materials

- ↳ From Appendix A:
 - Trainer script: "Keys to Success"
- ↳ PowerPoint slides: "Keys to Success"
- ↳ Video: "Keys to Success." from Toolkit DVD
- ↳ WLS \$

Procedure

Advance preparation

- ↳ Have the "Keys to Success" PowerPoint presentation and video ready to go.

Introduction

2 minutes

- ↳ Explain:

The 4-H Wildlife Stewards program began in 1996, and the first school Habitat projects were started in 1997. We have learned a lot since then about what works and doesn't work in these projects. In 2000, a group of veteran 4-H Wildlife Stewards met and developed a list of key points to keep in mind.

Show video: "Keys to Success"

8 minutes

"Keys to Success" Game

8 minutes

- ↳ Explain:

Now let's see who can remember the key points of the video.

☞ Show slide 1. Explain:

In this game, we'll show 10 puzzles on the screen, and you have to figure out the answer to each. We'll give WLS \$ to the person or persons who give the first correct answer to each puzzle.

Raise your hand when you know the answer. Training team members will decide who raises their hand first, second, third, and so on.

☞ Show slide 2 (Tip #1 puzzle). Call on the trainee who raises a hand first. Once someone answers the puzzle correctly, award him or her some WLS \$, and then move to slide 3 (Tip #1 answer). Briefly explain what this important tip means.

☞ Show slide 4 (Tip #2 puzzle), and proceed as described above until you have completed all 10 tips.

Debrief

2 minutes

☞ Explain:

This information is outlined in your 4-H WLS Volunteer Handbook on pages 29-30.

☞ Ask:

Are there any other tips or suggestions from group members who already are working on a project?

☞ Write down two or three ideas.

Wrap-up and Closure

5 minutes

☞ Thank everyone for a good day, and remind them what time the training begins the next day.

☞ Give a brief overview of the training sessions for the next day. Be sure to advise participants to dress comfortably to spend time outside.

☞ Let participants know whether or not they can leave their name tags, notebooks, and training materials in the training room overnight.

☞ If some participants are staying overnight, review lodging and meal arrangements.



Day Two—Creating Your Habitat Education Site



On Day Two, participants will learn:

- Key considerations for planning, designing, and creating a wildlife habitat on school grounds
- Activity and lesson ideas for the Habitat Education Site

Day Two Training Schedule

Day Two of training is heavy on content. Participants are presented a lot of information on wildlife, native plants, and how to map and inventory a site. So, keep participants active, and encourage them to get up and move a bit between sessions.

Day Two training goes best if you use smaller breakout rooms or areas. It's ideal to divide the training group into four smaller groups of five or six people each. Breaking into smaller groups has several benefits.

1. Participants have a chance to get up and move around.
2. Guest speakers can set up their presentation area ahead of time. This avoids delays that can

occur when speakers are scheduled back to back.

3. In a smaller group, participants feel more relaxed and comfortable to ask questions and participate in discussion. Also, if a speaker brings props (such as animal pelts or bird models), participants have more chance to see and handle them.

This training model does have drawbacks. It places a burden on the speaker, who must repeat a presentation up to four times. It can be a challenge to move the small groups through the rotation and still stay on task and on schedule. Give a training-team member the timekeeping task of keeping the groups moving. Be sure your guest speakers know how important it is to keep their presentation within the scheduled timeframe.

This day of training, unlike the other two days, is very dependent on local context. Recruit experts on local wildlife and native plants to help teach whenever possible. This way, participants learn about local flora and fauna, and—perhaps more important—they meet staff from agencies that could be partners on their project.

Schedule

5 minutes	Welcome
1 to 1¼ hours	Principles of Wildlife Habitat Management
2½ hours (includes 15-minute break)	Wildlife for Your School Habitat Set up four breakout rooms and divide the training group into four smaller groups. Each group attends one 30-minute presentation and then has 5 minutes to move to the next presentation. Allow a 15-minute break after the second presentation. <ul style="list-style-type: none"> • Attract Birds to Your Habitat Education Site • Common Local Mammals • Insect Basics • Herptiles in your Habitat Education Site
45 minutes	Lunch
50 minutes	Curriculum for Your Habitat Education Site (Part 1)
1 hour	Native Plants for Your Habitat Education Site
15 minutes	Break
1¼ hours	Map and Inventory Your Site
50 minutes	Curriculum for Your Habitat Education Site (Part 2)
5 minutes	Wrap-up and Closure

Day Two presentation materials from this Trainers Guide

Appendix A

Trainer scripts:

- ↳ Nose of Newt, Toe of Toad, Scale of Skink
- ↳ Mapping and Inventory Basics

Appendix B

Handouts:

- ↳ Wildlife Habitat Evaluation worksheet
- ↳ Arthropods—Common Classes and Their Characteristics (reproduced from *4-H Entomology Manual*, 4-H 3221, Oregon State University)
- ↳ A Key to Insects worksheet
- ↳ Identifying Key Features of Common Insect Orders worksheet
- ↳ Prose from Nature worksheet

Guest speakers

Remind guest speakers to bring handouts (already 3-hole punched) including a list of local resources (if available) for participants.

Opening the Day's Session

Advance preparation and sign-in

Schedule about 30 minutes before the day's start.

- ↳ Before sign-in, be sure the main training room and breakout rooms are set up (see "Creating the Ideal Learning Atmosphere," page 13).
- ↳ Have sign-in sheets and name tags ready at the check-in table.
- ↳ Designate an area where participants may place any new resources they bring in (handouts, sample curricula, or other published resources) to share with the rest of the group.
- ↳ Set up coffee, tea, and snacks 15 minutes before the training starts.
- ↳ Award WLS \$ to participants; for example, to those who arrive first, who are on time, or who bring a resource to share.

Welcome

5 minutes

- ↳ Welcome everyone back to the training.
- ↳ Introduce the day's guest speakers.
- ↳ Review the schedule for the day.
- ↳ Ask if anyone brought any resources to share, and show where resources are displayed.

- ✧ Award WLS \$ to anyone who would like to share something important they learned the day before.

Principles of Wildlife Habitat Management

Goals

Participants will learn:

- ✧ Four basic needs of wildlife: food, water, cover, and shelter
- ✧ Habitat management principles: carrying capacity, succession, fragmentation, diversity, and arrangement
- ✧ How to evaluate a Habitat Education Site for specific wildlife species

Scheduled time

1¼ hours

AV equipment

- ✧ Data projector and computer
- ✧ DVD or VHS projector

Presentation materials

- ✧ "Principles of Wildlife Habitat Management" slide show
- or
- ✧ Toolkit DVD, Principles of Wildlife Habitat Management section

Handouts

- ✧ From Appendix B:
 - Wildlife Habitat Evaluation worksheet
- ✧ Suggested references and websites

Procedure

Advance preparation

- ✧ Choose one of the options below:
 - If you live in Oregon, contact the 4-H Wildlife Stewards office for an Oregon PowerPoint presentation.
 - Recruit a local expert to give a presentation (slides or PowerPoint) on Principles of Wildlife Habitat Management. You might

find volunteers through a local university or community college, or the state or federal Fish and Wildlife department.

- Ask to borrow a presentation (images and script) from a local nature center, university, or Fish and Wildlife office.
- Prepare your own PowerPoint presentation based on the sample PowerPoint presentation provided here, that reviews basic principles of wildlife management. Slides may be available from a state or university Fish and Wildlife department. Remember to credit your source of information and images at the beginning of your presentation.

Be sure you have written permission from publishers to reproduce any copyrighted material. This caveat applies to materials on websites, also.

- ✧ Sometime before the start of this class, review the Wildlife Habitat Evaluation worksheet. Choose species groups for which the trainee teams will evaluate a site, such as small mammals, cavity nesting birds, or reptiles and amphibians.
- ✧ Find a natural area within a short walking distance of the training site for this exercise. Make sure the area is large enough to accommodate several small groups doing their evaluation. If possible, choose a site that has some but not all of the requirements for a selected species group.
- ✧ Create a handout that lists references on wildlife management. Include publications that discuss landscaping for and co-existing with wildlife, field guides, and organizations (see sample in Appendix B). Some sources for building this list include the local Extension Service office, university and/or local bookstores, Fish and Wildlife offices, or local nature centers.

In many cases, another agency or organization already has resource lists. Before you spend a lot of time researching your own, find out what kinds of resources lists may already exist, and use those in your training. Over time, you can add to your resource list as you develop more partners.

- ✧ Photocopy the handouts, one for each participant.

Overview of principles

35 minutes

- ↳ Introduce the presentation:
A Habitat Education Site is a wonderful place to involve students in learning the complexity of an ecosystem, teach the basic needs of wildlife, and practice habitat management techniques to improve habitat for local wildlife species.
- ↳ Give your "Principles of Wildlife Habitat Management" presentation. Or, show the Toolkit DVD section on Principles of Wildlife Habitat Management.
- ↳ At the end of the presentation, hand out the list of references on wildlife management. Talk briefly about your favorite reference books and why they are your favorites.

Field experience

25 minutes

- ↳ Divide the trainee group into small teams of four to six people each. Hand out a clipboard and one copy of the Wildlife Habitat Evaluation worksheet per team. Assign each team a species group to evaluate. Give support to the groups but not answers.
- ↳ Explain:
Members of each small group work together to fill out the worksheet. When you complete the worksheet, you'll present your evaluation to the group as a whole.
- ↳ Give participants 20 minutes to complete the worksheet.

Summary

15 minutes

Gather the groups together, and have each small group present its findings. The small-group presentations encourage an interactive debriefing of this exercise.

Be sure to go over these questions:

- Was the site adequate to provide the four basic needs of your species group?
- Did you have enough information to make an accurate evaluation of the site?
- Did you find this learning activity helpful?

Attract Birds to Your Habitat Education Site

Goals

Participants will learn:

- ↳ How to attract birds to a Habitat Education Site
- ↳ Most common birds that might visit a Habitat Education Site
- ↳ Proper care and maintenance of feeding stations
- ↳ How to involve students in bird-related projects

Scheduled time

30 minutes

AV equipment

- ↳ Data projector and computer

Presentation materials

- ↳ "Birds in Your Local Habitat" slide show
- ↳ Bird study skins of local species for hands-on viewing (if possible)
- ↳ Bird field guides
- ↳ From the Wildlife Garden set (Oregon State University Extension Service; see Appendix D.) All may not apply to your geographic region.
 - American Kestrel* (EC 1578), December 2005
 - American Robin* (EC 1568), October 2004
 - Attract Hummingbirds to Your Garden* (EC 1541), January 2002
 - Build Nest Boxes for Wild Birds* (EC 1556), June 2002
 - California Quail* (EC 1567), September 2004
 - Chickadee* (EC 1583), September 2006
 - Dark-eyed Junco* (EC 1603), April 2007
 - Feed Wild Birds* (EC 1554), June 2002
 - Rufous Hummingbird* (EC 1570), November 2004
 - Western Bluebird* (EC 1571), April 2005
 - Wood Duck* (EC 1606), April 2007

Handouts

- ↳ List of references on birds
- ↳ Bird Basics (bird anatomical structure; various feet, wing, and bill adaptations) and bird observation log

Procedure

Advance preparation

- ✧ Choose one of the options below :
 - If you live in Oregon, contact the 4-H Wildlife Stewards office for an Oregon Power-Point presentation.
 - Borrow and set up a display of bird study skins, samples of bird food (large sunflower, millet, small black sunflower, cracked corn, etc.), various feeder types, birding field guides for young people and adults, and reference books. You might be permitted to borrow bird study skins from a state Fish and Wildlife office, Audubon Society, or nature center.
 - Recruit a local expert to give a slide presentation on birds of the area. Be sure to let that person know what the goals of the presentation are and that he or she should focus on birds for school habitats.
 - Ask to borrow a presentation (images and script) from a local nature center, university, or state Fish and Wildlife office.
 - Create your own PowerPoint presentation of birds common to your area. Slides may be available from a university or state Fish and Wildlife office; or, visit websites that have bird images with scripts. Remember to credit the source of your images and information at the beginning of your presentation.
- ✧ Buy copies of relevant Wildlife Garden publications from the OSU Extension Service (see Appendix D for how to order) or download them from the website: <http://extension.oregonstate.edu/catalog/>
- ✧ Create a handout that lists references for this topic. Include popular youth and adult field guides and websites. Some sources for building this list include the Cornell Lab of Ornithology website (www.birds.cornell.edu), the local or national Audubon Society website, the American Birding Association, the local Extension Service office, university and/or local bookstores, Fish and Wildlife offices, or local nature centers.

- ✧ Create or find a “bird basics” handout that includes a picture of a bird with parts labeled; line drawings of bird bills, feet, and wings; and an observation log. You can find anatomical drawings of birds in the front of most field guides. There is an observation data sheet in the *4-H Wildlife Stewards Project Certification Handbook* (page 37).

Be sure you have written permission from publishers to reproduce any copyrighted material. This caveat applies to material on websites, also.

Birds presentation

25 minutes

- ✧ Introduce your slide show presentation:

Birds are often the first visitors to your Habitat Education Site. With their various colors and behaviors, birds draw the attention of young people and adults.
- ✧ As you follow the trainer script, show bird study skins, bird feeders, feed, or other props that correspond to the slide on the screen.
- ✧ The presenter can make a bird identification game by giving a prize to the participant who first identifies the bird on the screen. Be sure everyone gets at least one chance to answer during the presentation.
- ✧ At the end of the presentation, show examples of bird field guides. Briefly mention those that are your favorites and why, and those that are best to use with youth.
- ✧ Point out additional references available through Oregon State University Extension Service, or have similar publications available.
- ✧ Give participants the Bird Basics handout and list of references.

Summary

5 minutes

If you have a bird display, leave it on view for the rest of the training workshop.

Common Local Mammals

Goals

Participants will:

- ↳ Learn characteristics of common local mammals
- ↳ Learn how to attract certain mammals to the Habitat Education Site
- ↳ Learn techniques to deter unwanted mammals from moving into the Habitat Education Site
- ↳ Explore ideas for involving students in classroom-related projects about mammals

Scheduled time

30 minutes

AV equipment

- ↳ Data projector and computer

Presentation materials

- ↳ Slide show on common mammals of your state or region
- ↳ Skulls and pelts of local mammals (if possible)
- ↳ Mammal field guides
- ↳ From the Wildlife Garden set (Oregon State University Extension Service)
 - *Create Roosts for Bats in Your Yard* (EC 1555), June 2002
 - *Raccoon* (EC 1566), September 2004
 - *Townsend's Chipmunk* (EC 1580), December 2005
 - *Western Gray Squirrel* (EC 1572), May 2005
 - *Reduce Deer Damage in Your Yard* (EC 1557), November 2002
 - *Little Brown Bat* (EC 1584), September 2006

Handouts

- ↳ List of mammal-related websites
- ↳ Checklist of local mammals

Procedure

Advance preparation

- ↳ Choose one of the options below:
 - If you live in Oregon, contact the 4-H Wildlife Stewards office for an Oregon PowerPoint presentation.

- Borrow a display of mammal skulls and pelts from your state or federal Fish and Wildlife office, 4-H Camp, or nature center. Set up the skulls and pelts with youth and adult field guides and reference books on mammals.
- Recruit a local expert to give a slide presentation on local mammals. Be sure to let that person know what the goals of the presentation are and that he or she should focus on mammals for school habitats.
- Ask to borrow a presentation (images and script) from a local nature center, university, or Fish and Wildlife office.
- Create your own PowerPoint presentation of common local mammals. Slides may be available from a university or state Fish and Wildlife office, or visit websites that have prepared mammal images with scripts. Be sure to credit the source of your material at the beginning of your presentation.

Be sure you have written permission from publishers to reproduce any copyrighted material. This caveat applies to material on websites, also.

- ↳ Create handouts (websites and checklist).
- ↳ Photocopy the handouts, one for each participant.
- ↳ Buy copies of relevant Wildlife Garden publications from the Oregon State University Extension Service (see Appendix D for how to order) or download them from the website: <http://extension.oregonstate.edu/catalog/>

Mammals presentation

25 minutes

- ↳ Show your Common Mammals presentation. As you follow the script, show the pelt and skull that correspond to the species on the screen.
- ↳ The presenter can make a mammal identification game by giving a prize to the participant who first identifies the mammal on the screen. Be sure everyone gets at least one chance to answer during the presentation.
- ↳ At the end of the presentation, show examples of mammal field guides. Briefly mention those that are your favorites and why, and those that are best to use with youth.

- ✧ Point out the Oregon State University Extension Service publications as additional references, or have similar publications available.
- ✧ Distribute the handouts.

Summary

5 minutes

If you have a skull and pelt display, leave it on view for the rest of the training workshop.

Insect Basics

Goals

Participants will:

- ✧ Learn about and appreciate the types of insects in the Habitat and their role in the ecosystem
- ✧ Learn to identify common classes of insects and their characteristics
- ✧ Learn to use an insect key to identify insects in the Habitat

Scheduled time

30 minutes

Location

Depending on the time of year and whether your training site has a Habitat Education Site, you may choose to do this station inside or outside.

- ✧ Inside: Classroom with tables and chairs
- ✧ Outside: Take handouts and look for bugs

AV equipment

As needed

Presentation materials

- ✧ Live or mounted insects. 4-H Entomology members create collections of mounted insects; one of them may be willing to lend his or her collection for the workshop.
- ✧ Toy replicas of different classes of insects (i.e., spider, grasshopper, butterfly). These are available at educational toy stores and the toy sections of many large discount retail stores or dollar stores. Buy only anatomically accurate models; take with you a checklist of the correct number of legs, wings, and body parts.
- ✧ 4-H Entomology curriculum
- ✧ Sample insect traps, bee boxes, etc.

- ✧ From the Wildlife Garden set (Oregon State University Extension Service)
 - *Create a Butterfly Garden* (EC 1549), January 2002
 - *Dragonfly* (EC 1601), April 2007
 - *Lady Beetle* (EC 1604), April 2007
 - *Praying Mantis* (EC 1605), April 2007

Handouts

- ✧ From Appendix B:
 - Arthropods—Common Classes and Their Characteristics (reproduced from 4-H *Entomology Manual*, 4-H 3221, Oregon State University)
 - A Key to Insects
 - Identifying Key Features of Common Insect Orders worksheet
- ✧ List of local entomology resources

Procedure

Advance preparation

- ✧ Choose one option below:
 - Borrow a display of common local insects from your state or federal Fish and Wildlife office, 4-H Camp, nature center, or Master Gardener office. Set up displays with youth and adult field guides and reference books on insects.
 - Recruit a local expert to give a slide presentation on local insects. Be sure to let that person know what the goals of the presentation are and that he or she should focus the presentation on insects in school habitats.
 - Ask to borrow a presentation (images and script) and materials from a local nature center, university, or state Fish and Wildlife office. Be sure to credit the source of your information and images at the beginning of your presentation. Also ask to borrow insect traps, mason bee boxes, collecting nets, etc.
- ✧ Compile a list of contact information and websites (where applicable) for local entomology organizations that could be resources.
- ✧ Buy copies of relevant Wildlife Garden publications from the Oregon State University Extension Service (see Appendix D for how

to order) or download them from the website:
<http://extension.oregonstate.edu/catalog/>

Review insect identification

10 minutes

- ↳ Point out to participants:

Insects are common in wildlife Habitat Education Sites. There is lots of potential for students to learn about and explore the world of insects.

- ↳ Ask:

What are some of the benefits of insects?

What role do they play in our ecosystem?

- ↳ Review the Arthropods handout, looking at the illustrations and noting the body regions, antennae, and pairs of legs. Explain that these are the primary elements to note when making an insect identification.

What is Your Insect?

10 minutes

- ↳ Divide the group into teams of 2 or 3 people.
- ↳ Give each team a sample insect and the worksheets A Key to Insects and Identifying Key Features of Common Insect Orders. Have teams spend about 5 minutes to complete the Identifying Key Features... worksheet.
- ↳ Each team then reports their findings to the whole group (10 to 15 minutes).

Resources and summary

10 minutes

- ↳ Pass out the list of local insect resources.
- ↳ Show other local 4-H entomology curricula and resources. Point out any lessons or activities that would be particularly suitable for school Habitat Education Sites.

Herptiles in Your Habitat Education Site

Goals

Participants will learn:

- ↳ What herptiles are, and the difference between amphibians and reptiles
- ↳ Herptiles most likely to visit your Habitat Education Site
- ↳ Guidelines for keeping specimens

Scheduled time

30 minutes

AV equipment

- ↳ Data projector and computer

Presentation materials

- ↳ From Appendix A:
 - Trainer script: "Nose of Newt, Toe of Toad, Scale of Skink"
- ↳ Herptiles slide show
- ↳ Local herptiles, if possible
- ↳ Herptiles field guides
- ↳ From the Wildlife Garden set (Oregon State University Extension Service)
 - *Pacific Chorus Frog* (EC 1569), November 2004
 - *Create a Garden Pond for Wildlife* (EC 1548), April 2002
 - *Common Garter Snake* (EC 1602), April 2007

Handouts

- ↳ List of herptile-related references
- ↳ From the Wildlife Garden set (Oregon State University Extension Service)
 - *Attract Reptiles and Amphibians to Your Yard* (EC 1542), July 2002

Procedure

Advance preparation

- ↳ Choose one of the options below:
 - If you live in Oregon, contact the 4-H Wildlife Stewards office for an Oregon Power-Point presentation.

- Recruit a local expert to give a slide presentation on local herptiles. Be sure to let that person know what the goals of the presentation are.
- Ask to borrow a presentation (images and script) from a local nature center, university, or state Fish and Wildlife office.
- Prepare your own PowerPoint presentation of common local herptiles. You might be able to borrow slides from a university or state Fish and Wildlife department, or visit websites that have herptile images with scripts. Be sure to credit the source of your material at the beginning of your presentation.

Be sure you have written permission from publishers to reproduce any copyrighted material. This caveat applies to material on websites, also.

- ✧ Check with your state Fish and Wildlife office to find out the state regulations for collecting and keeping herptile specimens.
- ✧ Prepare a handout that lists references for this topic. Include popular youth and adult field guide books and websites. Some resources for making this list include university Extension Service offices, university and/or local bookstores, Fish and Wildlife offices, or local nature centers.
- ✧ Buy copies (one for each participant) of specified Wildlife Garden publications from the Oregon State University Extension Service (see Appendix D for how to order) or download them from their website: <http://extension.oregonstate.edu/catalog/>
- ✧ If possible, build a small rock pile for a herptile habitat demonstration.

Herptile presentation

20 minutes

- ✧ Introduce your slide show presentation:
Herps in your Habitat Education Site are fun to watch, interesting to learn about, and a benefit to the local ecology. Herptiles can be attracted to school Habitat Education Sites by making some simple adaptations to meet their habitat needs.
- ✧ As you follow the trainer script, show props that correspond to the herptile on the screen.
- ✧ The presenter can make a game of herptile identification by giving a prize to the

participant who first identifies the herptile on the screen. Be sure everyone gets at least one chance to answer during the presentation.

- ✧ At the end of the presentation, show samples of herptile field guides. Briefly mention those that are your favorites and why, and those that are best to use with youth.

Creating habitat for herptiles

5 minutes

- ✧ Distribute the publication *Attract Reptiles and Amphibians to Your Yard*. Point out some of the elements of a herp habitat:
 - Ponds
 - Rock walls
 - Brush piles
 - Basking or sunning sites
- ✧ When possible, have a local herptile expert elaborate on some of these habitat elements.

Summary

5 minutes

- ✧ Point out other Oregon State University Extension Service publications as additional references, or have similar publications available.
- ✧ Ponds are the best way to provide water for herps. Refer participants to the OSU Extension publication *Create a Garden Pond for Wildlife* (EC 1548) for how to create a school habitat pond.
- ✧ If you have a herptile display, leave it on view for the rest of the training workshop.

Lunch

45 minutes

Curriculum for Your Habitat Education Site (Part 1)

Goals

Participants will learn:

- ↳ Simple, easy lessons or activities that use the Habitat as an outdoor classroom
- ↳ How lessons or activities in the Habitat can help students meet education benchmarks
- ↳ Tips and suggestions for leading activities for children

Scheduled time

50 minutes

AV equipment

None

Presentation materials

- ↳ 4-H natural science curriculum
- ↳ Materials and supplies needed for the lessons

Handouts

- ↳ Curriculum lessons modeled
- ↳ Current state education standards

Resources

- ↳ Incorporating Habitat Projects into Education Benchmarks, in the *4-H Wildlife Stewards Volunteer Handbook* (pages 9–11).

Procedure

Advance preparation

- ↳ Review the 4-H natural science curriculum for your state or region. Or, visit the 4-H Wildlife Stewards website to download sample lessons (www.wildlifestewards.4h.oregonstate.edu)
- ↳ Choose two lessons that meet the following criteria:
 - They are conducted outdoors in the Habitat Education Site.
 - They can be completed in less than 30 minutes.
 - They can be tied to state or national education benchmarks. (Take the time to confirm that the curriculum goals of each lesson

match your state or national education benchmarks, if you're not sure.)

- They do not require a lot of equipment.
- They are hands-on (experience based).
- ↳ Some curriculum lessons from the 4-H Wildlife Stewards website that have worked well in this training include:
 - The Unnature Trail Game
 - Insect Bingo (summer trainings)
 - My Very Own Tree
 - How Many Bears Live in This Forest?
 - Habitat Safari
 - Rottin Away
 - Build Your Own Insect Trap
- ↳ Collect the materials you need to conduct the lessons.
- ↳ Set up two curriculum stations where you will conduct the lessons.
- ↳ Contact your local district or state education office to get copies of current education standards. Become familiar with them.
- ↳ Photocopy the handouts, one of each for each trainee.

Overview of education benchmarks

5–8 minutes

- ↳ Explain:

Creating, using, and sustaining Habitat Education Sites on school grounds provides many opportunities for teachers and 4-H Wildlife Stewards to deliver hands-on education in all areas of the school curriculum.

It is critical that 4-H Wildlife Stewards projects closely correspond to what teachers are teaching in the classroom. Meet with the teachers involved in the project to find out what classroom themes they may be using and what topics they plan to address during the school year. Most important, find out which education benchmarks they are focusing on. You may get more buy-in from teachers, and you will reinforce what the children are studying.

Most states have established a standards-based education system designed to improve the performance and accountability of schools. Many state standards are based on national standards.

- ✧ Distribute the handout on state education standards, and point out the major headings. Explain:

In addition to these state initiatives, schools are under increasing federal pressure to help students meet education standards. Under the federal "No Child Left Behind" Act, states are working to close the achievement gap and make sure ALL students achieve academic proficiency.

Annual state and school district report cards inform parents and communities about state and school progress. Schools that do not make progress must provide after-school assistance; take corrective action; and, if still not making adequate progress after 5 years, make dramatic changes to the way the school is run. So, it is imperative that Habitat Education Sites provide opportunities to help students meet these standards.

- ✧ Ask teachers in the group for any additional insights or suggestions on education standards and how standards are emphasized or implemented in their work.

Curriculum demonstration

45 minutes

- ✧ Explain:

We're going to demonstrate two simple lessons that you can use in the Habitat with students. Both lessons are tied to education standards.

- ✧ Divide the group in two, and send each group to a curriculum station. Appoint a team member to help track time. After 25 minutes, the groups change stations.
- ✧ Before presenting the lesson, identify which education benchmark(s) the lesson meets, where each lesson can be found, and the target age group.
- ✧ Demonstrate the lesson as if you are teaching children.
- ✧ At the end of the lesson, debrief:
 - How would you adapt this lesson for larger or smaller groups?
 - How would you adapt this lesson to different age groups?
 - What teaching strategies did you notice were helpful?

What are ways this lesson could be extended?
What teaching tips or suggestions do you have for this lesson?

- ✧ Give a copy of the lesson plan to each participant.
- ✧ Refer participants to Incorporating Habitat Projects into Education Benchmarks, in the *4-H Wildlife Stewards Volunteer Handbook* (pages 9–11).

Native Plants for Your Habitat Site

Goals

Participants will learn:

- ✧ Importance and benefits of using native plants in the Habitat Education Site
- ✧ Most common native plants for their Habitat site
- ✧ Tips on choosing, buying, and planting native plants
- ✧ Native plant resources for their area

Scheduled time

1 hour

AV equipment

- ✧ Data projector and computer

Presentation materials

- ✧ Slide show on native plants of your region
- ✧ Live native plant samples, if possible
- ✧ *Gardening for Wildlife Native Plant Flashcards* (See Appendix D for how to order.)
- ✧ Flagging tape or numbered notecards (for attaching to plants)
- ✧ Native plant field guides

Handouts

- ✧ From Appendix B:
 - Prose from Nature worksheet
- ✧ Native Plant Identification worksheet (see "Advance preparation")
- ✧ List of native plant references (see "Advance preparation," next page)

- ✧ Publications from local or state Extension Master Gardeners, on topics such as:
 - Poisonous plants
 - Fire-resistant plants
 - Invasive plants and noxious weeds
 - Contact information for local nurseries

Procedure

Advance preparation

- ✧ Choose one of the options below:
 - If you live in Oregon, contact the 4-H Wildlife Stewards office for an Oregon PowerPoint presentation.
 - Recruit a local expert, such as an Extension Horticulture faculty member or Extension Master Gardener™ volunteer, to give a slide presentation on local native plants.
 - Ask to borrow a presentation (images and script) from the Extension office or a local nature center.
 - Prepare your own PowerPoint presentation of common local native plants. You might be able to borrow slides from the Extension Master Gardener™ Program or a university Horticulture department; or, visit websites on native plants. Be sure to credit the source of your material at the beginning of your presentation.

Be sure you have written permission from publishers to reproduce any copyrighted material. This caveat applies to material on websites, also.

- ✧ Prepare a handout that lists references for this topic (include popular youth and adult books, reference guides, nurseries, and websites). Ask Extension Service offices, university and/or local bookstores, nurseries, or garden clubs for ideas to add to the list.
- ✧ Collect sample native plants or borrow from local nurseries. Display them around the room with numbered tags. Many nurseries will donate plants that you can “auction” later.
- ✧ Set up the Native Plant Identification contest. There are four ways to do this:
 1. (Best option) If your training site has at least 10 different native plant species, attach a numbered tag to 10 to 15 good specimens.

2. Place donated native plants around the room, and attach a number to each plant.
 3. Select and display around the room 10 to 15 native plant flashcards (from the *Gardening for Wildlife Native Plants Flashcards*) and attach a numbered tag to each card.
 4. Do a combination of the three above. Conduct this option outdoors, placing the native plant samples and flashcards in spots that might be suitable for planting.
- ✧ Develop a Native Plant Identification worksheet that lists the names of all the plants (and/or flashcards) in random order. Next to each plant name add a line. Participants will be asked to identify the plants with the corresponding number.
 - ✧ Photocopy the Prose from Nature and Native Plant Identification worksheets and the list of references—one copy of each for each trainee.
 - ✧ Choose three different and very unique potted native plants, and place them on the table in the front of the room.

Introduction

10–15 minutes

As participants return from the curriculum lessons, hand out the Prose from Nature worksheet. Ask them to invent their own name for one of the three plants and to write a short poem. After 5 or 6 minutes, move on to the rest of the introduction (even though some people will not have finished the activity).

Load the PowerPoint presentation. Introduce it by asking participants:

What are the benefits of native plants?

Ask participants to share their invented plant names and poems. Explain:

You can use the Habitat Education Site to introduce literature, poetry, and art as well as to study science and math.

Native Plant Identification Contest

15 minutes

Explain:

We're going to test everyone's knowledge of plants! We've set up a native plant identification contest. WLS \$ is the prize for those who score the highest.

- ✧ Pass out the Native Plant Identification worksheets. Explain where the plants are set

up (outside or inside). Instruct participants to put the number of the tagged plant next to the plant name on the list.

- ↳ After 15 minutes, bring the group back. Ask:
How many plants did you identify?
Was this hard or easy?
- ↳ This activity helps assess the knowledge level of the participants. You can call on knowledgeable individuals during the presentation to give their input.

Native plant presentation

20 minutes

- ↳ As you follow the trainer script, point out any plants on the screen that correspond to those in the identification contest. Ask who got the correct answer. Award WLS \$ to those who get the most correct answers.
- ↳ At the end of the presentation, show samples of native plant field guides. Briefly mention those that are your favorites and why, and those that are best to use with youth.
- ↳ Point out other local Extension Master Gardener™ program publications as additional references, or have similar publications available.

Summary

10 minutes

If you have native plants on display, leave them on view for the rest of the training workshop.

Break

15 minutes

Map and Inventory Your Site

Goals

Participants will learn:

- ↳ Purpose and importance of mapping and taking inventory of a site
- ↳ How to use the information for science investigation

Scheduled time

1 hour 15 minutes

AV equipment

- ↳ Data projector and computer

Presentation materials

- ↳ From Appendix A:
 - Trainer script: Mapping and Inventory Basics
- ↳ PowerPoint slides: Mapping and Inventory Basics
- ↳ Video: Mapping Your Site and Site Inventory, from the Toolkit DVD
- ↳ Flip chart and colored markers (Use a graph-paper flip chart, if possible.)
- ↳ Tape measures (both in metric and inches)
- ↳ Measuring wheel (ask your Bureau of Land Management or Soil and Water Conservation District about borrowing one)
- ↳ Graph paper (¼ inch)—one sheet per team
- ↳ Drafting compass—one per team
- ↳ Directional compass—one per team
- ↳ Clipboard—one per team
- ↳ Pencils

Handouts

- ↳ From *4-H Wildlife Stewards Project Certification Handbook*:
 - Habitat Education Site Inventory Worksheet (pages 39–44)
- ↳ Publications from the local or state Extension Master Gardener™ program
- ↳ Scale map of building (see “Advance preparation”)

Resources

- ✧ *4-H Wildlife Stewards Project Certification Handbook:*
 - Habitat Education Site Inventory Worksheet (pages 39–44)

Procedure

Advance preparation

Depending on the size of your training group, set up three to six stations outside (one for every 4 to 5 participants) where trainees can practice mapping and taking inventory.

- ✧ Mark off two to four stations with flagging tape. These are the “sites” that teams will be asked to measure, map, and inventory. Choose areas that most closely resemble a school Habitat Site (near a building; some human-made features such as a sidewalk or fence; some native trees and plants, but mostly grass or non-native plants). There should be a variety of natural and human-made features to include in the inventory.
Each “site” should be no larger than 25 x 50 feet. One large area can be marked off with flagging tape into smaller sections.
- ✧ Set up two stations near a building and including at least two trees or bushes wide enough apart to use for triangulation. On four sheets of 8.5 x 11 paper, print a large “A,” “B,” “1,” and “2” (one figure per sheet). Label two fixed points on the building with the “A” and “B” sheets of paper. Label one tree or bush with the “1” sheet of paper and a second tree or bush with the “2” sheet of paper. (If there is no tree or bush to work with, use a prop such as a potted plant, box, or tin can).
- ✧ On both sides of a piece of graph paper, make a map to scale of the building. Make enough double-sided copies of the map to give one to each team.
- ✧ Photocopy the Habitat Education Site Inventory Worksheet, one for each team.

Introduction

15 minutes

- ✧ Show slide 1 of the “Mapping and Inventory Basics” PowerPoint presentation. Begin the session by asking:
Why is it important to have a site plan?

- ✧ After several participants have responded, show slides 2 and 3.
- ✧ Show slide 4, and read the slide aloud.
- ✧ Show slide 5, and follow the trainer script.
- ✧ Refer participants to resources from the local Extension office on mapping and inventory and explain how they can get these resources. Your local Master Gardener or Master Naturalist program also may have mapping and inventory resources they can share.
- ✧ Next, refer participants to the *4-H Wildlife Stewards Project Certification Handbook: Habitat Education Site Inventory Worksheet* (pages 39–44). Explain:

This is the worksheet that students can use to do an inventory of their school site. It has been used successfully at many 4-H Wildlife Stewards member schools.

We will begin the process of taking inventory of a site here at this training. Conducting a good inventory of your school site with students may take several sessions (depending also on the size of the site).

- ✧ Show slide 6, the components of a Habitat inventory. Go over each section of the Inventory worksheet, and highlight some of the components of each.
- ✧ Show slides 7, 8, and 9; follow the trainer script on slides 7 and 8.
- ✧ Return to slide 8, and follow the trainer script under “Upon return to Slide 8.”
- ✧ Explain and demonstrate Step One.
Make a freehand outline of your “site” that includes plants and human-made structures.
- ✧ Using the flip chart, draw a rough sketch of one of the sites that will be used in the hands-on activity.
- ✧ Explain Step Two:
In Step Two, you’ll measure only the outline border of the site.
- ✧ Show and describe the measuring tools you have available for trainees to use. Have a variety of tools on hand, including 25-foot measuring tapes, an engineer’s measuring tape, 100-foot measuring tapes, measure wheels, 100-foot rope marked off every 5 feet, and any other tools you may have. Explain where you

got these measuring tools and how trainees can buy or borrow their own.

Each group not only will inventory, map, and measure a site, you'll also learn how to triangulate. Each group is expected to visit the triangulation station during the 40 minutes you have for the activity.

If students want to do more advanced mapping, they can also measure the slope of the site. In the interest of time, we will not be measuring slope.

☞ Show slide 9. Explain Step Three, using the trainer script.

☞ Demonstrate on the flip chart diagram by circling areas of the map and labeling them "dry," "boggy," "full sun," "shortcut to ball field," etc.

☞ Explain Step Four, using the trainer script.

☞ Demonstrate on the flip chart graph paper how to convert measurements. Figure out a scale, and show how to convert a measurement to scale and mark it on the flip chart paper. Explain:

You will be using graph paper with $\frac{1}{4}$ -inch squares. On your maps, $\frac{1}{4}$ inch equals 1 foot.

Mapping and inventory exercise

35 minutes

☞ Divide the group into teams of 4 to 5 people.

☞ Assign each team a site to inventory, measure, and map. Give each team a clipboard, a drafting compass, a directional compass, an inventory worksheet, graph paper that has the building map, and a pencil.

☞ Explain:

Now you'll go outside to inventory, measure, and map your site. You have 40 minutes to complete as much of this exercise as you can. Within 40 minutes, you should be able to measure and map your site and triangulate at least one of its features. Complete as much of the inventory worksheet as you can. [Designate one or two groups to start at the triangulation station first.]

Triangulation lesson

☞ Assign two core training team members to conduct the triangulation demonstration. Explain why triangulation is important (to be

able to locate features of your site accurately on a map).

☞ Show and explain:

You must have two fixed points to do triangulation. We have designated fixed points A and B. The two items we will triangulate are 1 and 2. Let's triangulate item 1 first.

First, we must measure from point A to point 1 (we'll call this "A1").

☞ Have the participants measure A1. While they are measuring, explain:

It is important to measure from a specific point at A. For example, if point A is the edge of a building, choose a spot along the vertical edge where you will place your measuring tape. Take each measurement from this same spot. Also, if item 1 is large, measure to the center of the item. Be sure your tape measure is level (on the horizontal) as you measure from point A to Item 1.

☞ Next, have the participants measure B1 and write down that measurement. Have them gather around your clipboard with the building map graph paper. Explain:

I have already measured the building and mapped it on the graph paper. We are using the scale of 1 foot = $\frac{1}{4}$ inch.

Take the first measurement, A1. Convert A1 to scale (i.e., 12 feet = 3 inches or 12 squares on the graph paper). Put the point of the drafter's compass on point A of your graph paper. Open the compass so that the distance between the point of the compass and the pencil on the compass is the converted distance of A1 (in this example, that is 3 inches or 12 squares). Using the pencil, draw an arc where you estimate item 1 to be on the map.

Convert the B1 measurement to scale. Put the point of the compass on Point B of the graph paper. Open the compass so that the distances between the point of the compass and the pencil is the converted distance of B1. Keeping the point of the compass on point B, draw an arc where you estimate Item 1 is on the map. Where the arc of A1 and the arc of B1 intersect is the exact spot on your map to place item 1.

Now turn the graph paper over and triangulate item 2.

- ✧ Once a team has accomplished a triangulation, send them back to their own site to triangulate one item on their map. Call another group over to learn how to triangulate. Repeat this demonstration with all the groups.

Review of mapping and inventory

5 minutes

- ✧ After 40 minutes, bring the teams back inside and review the process (slides 10 to 15).
- ✧ Ask:
 - What was easy about this exercise?
 - What was difficult?
 - How would you conduct this exercise with students?

Creating a detailed site plan

15 minutes

- ✧ Explain:

Developing a detailed site plan is the last step in the process. This is when you map your dreams and vision for the site. (A professional landscape designer might be a good resource for designing your site, and many landscape designers offer their services pro bono. But remember, this is the students' project.)
- ✧ Show slides 16 through 20, and review the listed tips. Using the flip chart, demonstrate how to make bubble drawings on the site map. With a colored marker, draw a circle around each distinctive area (i.e., sunny spot, shady spot, boggy place, open space) and label each with its description and possible use (i.e., sunny spot—great butterfly garden; open space—good for outdoor seating area; outside classroom window—good place for a bird garden with bird houses and feeders).
- ✧ Show and review slides 21–26.

Summary

- ✧ Show the video Mapping Your Site and Site Inventory (8 minutes) from the Toolkit DVD.
- ✧ Explain:

This video demonstrates how this important activity can be done with youth.

- ✧ Refer participants to the following references for additional reading.

- *Oregon 4-H Wildlife Stewards Project Certification Handbook*
 - Site Selection Checklist (page 32)
- *Oregon 4-H Wildlife Stewards Volunteer Handbook*
 - Inventory and Data Collection (pages 17–18)
 - Map Your Habitat Education Site (page 19)
 - Design, Create, and Improve Your Habitat Education Site (pages 20–21)

Curriculum for Your Habitat Education Site (Part 2)

Goals

Participants will learn:

- ✧ Simple, easy lessons or activities that use the Habitat as an outdoor classroom
- ✧ How lessons or activities in the Habitat can help students meet education benchmarks
- ✧ Tips and suggestions for leading activities for children

Scheduled time

50 minutes

AV equipment

None

Presentation materials

- ✧ 4-H natural science curriculum
- ✧ Materials and supplies needed for the lessons

Handouts

- ✧ Curriculum lessons modeled

Procedure

Advance preparation

- ✧ Review the 4-H natural science curriculum for your state or region. Or, visit the 4-H Wildlife Stewards website at www.wildlifestewards.4h.oregonstate.edu to download sample lessons.

- ✧ Choose two lessons (other than those used earlier) that meet the following criteria:
 - They are conducted outside in the Habitat Education Site.
 - They can be completed in less than 30 minutes.
 - They can be tied to state or national education benchmarks. (Take the time to confirm that the curriculum goals of each lesson match your state or national education benchmarks, if you're not sure.)
 - They do not require a lot of equipment.
 - They are hands-on (experience based).
- ✧ Be sure to choose lessons from two new topics. For example, if the previous two lessons were on plants and soils, choose these from insects or water.
- ✧ Photocopy the handouts, one of each for each participant.
- ✧ Collect the materials you need, and have them ready for the lessons.
- ✧ Designate two stations for conducting the curriculum lesson.

Curriculum demonstration

45 minutes

- ✧ Explain:

We're going to demonstrate two simple lessons you can use with students in your Habitat. Each of these lessons is tied to education standards.
- ✧ Divide the group in half, and send each group to a curriculum station. Appoint a team member to help track time. After 25 minutes, the groups change stations.
- ✧ Before presenting the lesson, identify which education benchmark(s) each lesson meets, where the lessons can be found, and the target age group.
- ✧ Demonstrate the lesson as if you are teaching children.
- ✧ At the end of the lesson, debrief:

How would you adapt this lesson for larger or smaller groups?

How would you adapt this lesson for different age groups?

What teaching strategies did you notice were helpful?

In what ways could this lesson be extended?

What teaching tips or suggestions do you have for this lesson?

- ✧ Give participants a copy of each lesson plan.

Wrap-up and Closure

5 minutes

- ✧ Thank everyone for a good day, and remind them what time the training begins the next day.
- ✧ Invite each participant to think of one word that summarizes their learning today. Go around the room and have each person say his or her word.
- ✧ Give a brief overview of the next day's training sessions. Be sure to point out that they need to dress comfortably to spend time outside.
- ✧ Let participants know whether or not they can leave their name tags, notebooks, and training materials in the training room overnight.
- ✧ If some participants are staying overnight, review lodging and meal arrangements.



Day Three—Sustaining Your Project



Day Three prepares training participants to develop and implement their project so that it can be sustained over time. While many schools are successful in creating outdoor classrooms for hands-on science learning, fewer are successful in ensuring that the project can be and is sustained. Day Three also incorporates sessions on child development and child protection issues.

On Day Three, participants will learn:

- Volunteer rights and responsibilities when working with youth
- Key considerations and suggestions for project sustainability
- The next steps for beginning their role as a 4-H Wildlife Steward

Day Three Training Schedule

Day Three of training includes many concurrent sessions. In the first session, the participants join one of two groups. In Oregon, 4-H volunteers who have not had formal training attend the Stages of Child Development and For the Well-being of Youth and Adults sessions. Anyone who wishes to become a 4-H Leader in Oregon *must* attend this training. Teachers and 4-H staff attending 4-H Wildlife Stewards trainings have already had formal, certified training in these two topics, so they

have the option to participate in the Science Investigations in the Habitat session.

Each state or region of the country may have different requirements for training adult 4-H volunteers on child safety and protection. Be sure to find out what your state or region may require before adults are allowed to work with children.

There are nine “mini-workshops” on project sustainability structured in three sets of three sessions each. Divide the training group into three smaller groups. The three groups alternate attending the mini-workshops in each set, so all groups attend all workshops over the course of the day. The nine mini-workshops can be combined in any order.

You will need three rooms or designated areas for the concurrent sessions, and each presenter will have to deliver his or her presentation three times. Be sure to designate one training team member to be the time-keeper who helps keep the groups moving on schedule.

Incorporate “auctions” throughout the day to bring participants back from breaks on time and help focus them.

Day Three is also a good time to invite veteran 4-H Wildlife Stewards to talk about their experience and success with one of the day's session topics. Be sure to brief them on the training program, give them the sample lesson plans and handouts, and supply them with some WLS \$ to award when appropriate.

Schedule

Total scheduled time	Concurrent sessions	Session title
10 minutes		Sign-in and welcome
60 minutes	30 minutes each	Stages of Child Development
		For the Well-being of Youth and Adults
	60 minutes	Science Investigation in the Habitat (concurrent session for teachers and 4-H staff only)
50 minutes		Project Sustainability Certification
15 minutes		Break
1 hour and 10 minutes		Project Sustainability Mini-workshops
	20 minutes	• Why Should I Keep a Project Notebook?
	20 minutes	• Habitat Education Site Signage
	20 minutes	• School Bulletin Boards
45 minutes		Lunch
		Project Sustainability Mini-workshops
1 hour and 10 minutes	20 minutes	• Discouraging Vandalism
	20 minutes	• Summer Maintenance Plan
	20 minutes	• Student Journals and Data Sheets
		Project Sustainability Mini-workshops
1 hour and 25 minutes (includes a 15-minute break)	20 minutes	• Writing Grants to Support your Project
	20 minutes	• 4-H Junior Wildlife Stewards After-school Clubs
	20 minutes	• Promoting Your Program
60 minutes		Science Inquiry Presentations
60 minutes		Evaluation, Graduation, and Next Steps

Day Three presentation materials from this Trainers Guide

Appendix A

Trainer scripts (correspond to Oregon PowerPoint presentations):

- ↳ Discouraging Vandalism in Your Habitat Site
- ↳ Summer in the Habitat
- ↳ 4-H Junior Wildlife Stewards After-school Clubs
- ↳ Closing Program

Appendix B

Handouts:

- ↳ Adopt a Tree Certificate and worksheet
- ↳ Bulletin Board Sample Headings worksheet
- ↳ Certificate of Completion

↳ Dichotomous key (from *Trees to Know in Oregon*, EC 1450, 2003 edition, Oregon State University Extension Service)

↳ Promoting the 4-H WLS Program—Media Basics

↳ Promoting the 4-H WLS Program—What Makes News?

↳ Promotional flyer for the 4-H Junior Wildlife Stewards Summit

↳ Sample project notebook pages

↳ Training Evaluation form

↳ Working with Youth of Different Ages (reproduced from *Exciting Meetings for Great Groups*, 4-H 0256L, Oregon State University Extension Service)

Appendix C

↳ Child Ages and Stages of Development Clues

Opening the Day's Session

Advance preparation and sign-in

Schedule about 30 minutes to complete these tasks.

- ✧ Before sign-in, be sure the main training room and breakout rooms are set up (see "Creating the Ideal Learning Atmosphere," page 13).
- ✧ Have sign-in sheets and name tags ready at the check-in table.
- ✧ Designate an area where participants may place any new resources they bring in (handouts, sample curricula, or other published resources) to share with the rest of the group.
- ✧ Set up coffee, tea, and snacks 15 minutes before the training starts.
- ✧ Award WLS \$ to participants; for example, to those who arrive first, who are on time, or who bring a resource to share.

Welcome

5 minutes

- ✧ Welcome everyone back to the training.
- ✧ Introduce the day's guest speakers.
- ✧ Review the schedule for the day.
- ✧ Remind participants that today they will present their science inquiry results.
- ✧ Ask if anyone brought any resources to share, and show where new resources are displayed.
- ✧ Ask if anyone would like to share something valuable they learned the previous day.

Stages of Child Development

Goals

Participants will learn:

- ✧ How children's ages correspond to stages of development
- ✧ Mental processes of specific age groups
- ✧ Physical development and limitations of different age groups
- ✧ How to use this knowledge to teach each age group

Scheduled time

30 minutes

Location

Classroom or meeting room, or outside (depending on the weather)

AV equipment

None

Presentation materials

- ✧ From Appendix C:
 - Child Ages and Stages of Development Clues
- ✧ 25 plastic eggs in five different colors (five eggs of each color)
- ✧ Large basket for holding eggs

Handout

- ✧ Working with Youth of Different Ages

Resources

- ✧ Experience and knowledge of training participants who have worked with youth

Procedure

Advance preparation

These tasks may take about 15 minutes to complete.

- ✧ Photocopy the Child Ages and Stages of Development Clues sheet. Cut so each clue is on a separate slip of paper. Decide which color egg corresponds to each age group, and put one clue inside each egg. Place all the eggs in a basket.
- ✧ Make photocopies of the handout for participants.

Introduction

5 minutes

- ✧ Explain:

The goal of this session is to understand how a child's age affects the way you would work with him or her in the Habitat.

In 4-H, we work to develop a child's intellectual, emotional, social, and physical capabilities (head, heart, hands, and health). Some children develop more slowly or quickly in one or more of these four domains. A 4-H leader recognizes the unique qualities and needs of each child and then helps each meet those needs.

Though each child develops differently, there are general characteristics that are common to children of specific age groups.

- ✧ Pass around the basket of eggs and ask participants each to take 1 or 2 eggs (depending on the size of your group).

Group exercise

25 minutes

- ✧ Start with the eggs for the youngest age group (5–8 years).
- ✧ Each participant who has that color egg opens it and reads the slip aloud. Then, each gives an idea how that fact might affect his or her work with a child in the Habitat. The trainer acknowledges and reinforces what the trainees say, and adds additional comments.
- ✧ Proceed to each color egg in age-group sequence, following the same procedure.
- ✧ When all have read, ask participants to put the slips back into the eggs and close them. Collect the eggs in the basket.

For the Well-being of Youth and Adults

Scheduled time

30 minutes

Goals

Participants will:

- ✧ Go over guidelines that protect youth and those who serve them
- ✧ Become more aware of the types and characteristics of child abuse and their legal duty to report it

Location

Classroom

AV equipment

None

Presentation materials

- ✧ Flip chart
- ✧ Markers

Handouts

- ✧ State-specific 4-H guidelines for working with youth. Check with your state 4-H office for copies of guidelines for 4-H adult volunteers.

Procedure

Advance preparation

- ✧ Review the following online resources:
 - 4-H Wildlife Stewards *Guidelines for Working with Youth* <http://www.4hwildlifestewards.org/education/tools/documents/Guidelinesforyouth.pdf>
 - U.S. Department of Human Resources: *Recognizing Child Abuse and Neglect: Signs and Symptoms* http://www.childwelfare.gov/pubs/can_info_packet.pdf
 - U.S. Department of Human Resources: *Mandatory Reporters of Child Abuse and Neglect* http://childwelfare.gov/systemwide/laws_policies/statutes/manda.cfm
- ✧ Research and become familiar with your own state guidelines for reporting child abuse.
- ✧ Research and become familiar with your state 4-H guidelines for working with youth.
- ✧ Post two sheets of flip-chart paper on the wall; with a marker, draw a line across each sheet of paper dividing it in half.

Introduction

3 minutes

- ✧ Explain:

The 4-H Youth Development Program believes in the right of every child to a safe and nurturing environment. Abusive or neglectful actions against children are contrary to the values of the 4-H Youth Development Program.

At some point, people who work with children may have to report child abuse.

- ✧ Ask the group if anyone has ever had to report child abuse. Invite one or two of those who have reported child abuse to share their experience. Instruct those who share to be sensitive to the need for confidentiality.

- ✧ Explain:

Reporting child abuse is never easy. It is important that those who work with you be able to recognize the signs and symptoms of possible

abuse and know how to contact the proper authorities. By reporting suspected abuse, you could save a child's life or prevent serious injury.

Signs and symptoms of child abuse

10 minutes

✧ Explain:

Now we'll review characteristics of abuse and how to identify them. A child or family may exhibit warning signs of abuse even though no abuse has yet occurred.

✧ Invite participants to identify the four categories of abuse. They are:

- Physical
- Sexual
- Emotional
- Neglect

As participants identify each category, write one in each of the four sections of the flip-chart paper.

✧ Read a summary of how your state defines child abuse.

✧ Invite participants to identify the signs and symptoms of each of the four categories of abuse. Record these on the flip-chart paper.

✧ After participants have exhausted their own thinking, compare their list with that of the U.S. Department of Human Services. Add any signs or symptoms that are missing.

Reporting child abuse

5 minutes

✧ Go over with participants their state's Guidelines for Reporting Child Abuse. Refer participants to handouts that outline reporting responsibilities and procedures for 4-H volunteers.

Guidelines for working with youth

10 minutes

✧ Explain:

As we work with youth, common sense and the well-being of those we work with should guide the decisions we make. It is important that you establish guidelines for your club that ensure that kids are provided a nurturing and safe environment. For example, establish guidelines for touching, do not allow abusive or derogatory language, set limits with children who "cling" or hang on to

leaders, strive to respond as opposed to react to children who can be difficult. This will make it less likely that child abuse or an abusive situation will occur.

✧ Review the guidelines for working with youth established by your state 4-H program, or use the 4-H WLS *Guidelines for Working with Youth*.

✧ Remind participants that it is their responsibility to find out their respective schools' guidelines for working with youth. Invite participants to share any guidelines specific to their school or school district that have not yet been mentioned.

Conclusion

2 minutes

✧ Remind participants:

If you have any questions or concerns, or if you are unsure what to do, please talk to one of your local Extension 4-H staff. Hopefully, you will never have to report child abuse or be in a situation where child abuse may occur. But, it's important to be aware and to know how to create a safe and nurturing environment.

Remember to have fun. Laugh, enjoy your work with young people, and build relationships with them.

Science Investigation in the Habitat

Goals

Participants will learn:

- ✧ How to develop one topic into a year-round project
- ✧ How to incorporate science inquiry into a school Habitat project
- ✧ How to help students identify trees

Scheduled time

Approximately 60 minutes

Location

Classroom or meeting room for the first part of the session, and outside for the second part. (Choose an outside area that has a large variety of trees.)

AV equipment

None

Presentation materials

- ✧ Four or five different soda cans (e.g., cola, diet cola, root beer)
- ✧ Tree leaf samples from the training site (two from each tree)
- ✧ Brown paper bags (one for each participant)
- ✧ Copies of local tree identification books, one for each team of two participants
- ✧ Pencils/pens for each trainee
- ✧ Clipboards (one for every two trainees)
- ✧ Measuring tapes (one for every two trainees)
- ✧ Directional compasses (one for every two trainees)

Handouts

- ✧ From Appendix B:
 - Adopt a Tree Certificate and worksheet
 - Dichotomous key from *Trees to Know in Oregon*, or a dichotomous key for trees in your area

Procedure

Advance preparation

- ✧ Contact your local Extension office, Parks and Recreation, and/or forestry department to find resources and publications on local trees.
- ✧ Make photocopies of the handouts for participants.
- ✧ Put all the leaf samples into paper bags, one leaf per bag.

Introduction

5 minutes

Explain:

When you do this activity with kids, the goals are:

- ✧ Introduce students to dichotomous keys and how scientists use them to identify plants and animals
- ✧ Introduce different species of trees and allow students to explore trees' similarities and differences

For our purposes, this session demonstrates how you can take one topic, such as trees, and

develop it into a year-long science investigation for your students.

Dichotomous keys

10 minutes

- ✧ Hold up the different soda cans. Ask:
What are the differences between these cans?
How are they similar?

✧ Introduce the process of classification. Explain:
Let's classify all the students in this classroom. We can make various categories, such as gender, color of hair, color of eyes, those who wear glasses, etc.

We classify plants and animals in many of the same ways. Today we'll learn how to identify trees.

- ✧ Using the sample leaves you have brought, take trainees through the process of classifying tree leaves by explaining the following:
 - Conifers vs. broadleaves
 - Simple vs. compound
 - Lobed vs. serrated
 - Cluster needles vs. massed needles

What Am I?

10 minutes

- ✧ Explain:

Now you're going to identify your own tree leaves using only your sense of touch.

- ✧ Pass out one paper bag to each trainee. Explain:
Inside the bag is a leaf. You are not allowed to look at it—only to touch it. One other person in the room has the same leaf as you have. Walk around the room and describe your leaf to others using the classification system. Your goal is to find the other person who has the same leaf. When you think you've found your match, check with the instructor to confirm whether you are correct.

- ✧ Once everyone has found their match, give each pair a copy of the dichotomous key from *Trees to Know in Oregon* or a dichotomous key for trees of your area. Show them how it works. Also, pass out to each team a local tree identification book. They must now identify what tree their leaves came from using these tools.

Adopt a Tree

20 minutes

- ✧ Once each pair has successfully identified their tree using the dichotomous key and tree identification book, pass out the Adopt a Tree Certificate and worksheet.
- ✧ Demonstrate different techniques for measuring the height of a tree.
- ✧ Tell participants:
Now, go find your tree in the area outside.
When you find your tree, complete the worksheet on the back of your Adopt a Tree Certificate.
- ✧ Bring participants back inside, and have each pair present their certificate to the rest of the group.

Tree investigations

15 minutes

- ✧ Explain:
Now sit down and think of something you would like to learn about your tree, and a science inquiry experiment that you can conduct over the course of the year. Complete the questions on the back of your Adopt a Tree Certificate worksheet.
- ✧ Ask each pair to share their experiment idea.
- ✧ Brainstorm with the group how they might conduct a similar year-round inquiry on insects or squirrels.
- ✧ Remind participants:
A key to success is to keep projects simple and small. A great way to keep a project small and simple is to focus on one topic of interest for students and carry it over into different subject areas (writing, music, art) throughout the year.
Using trees as an example, students could write a story about their tree, make drawings of the tree at different times of year, measure their tree, and conduct science investigations. They could also learn a little history by researching what types of trees existed on their school grounds 100 years ago, or 50 years ago.
There are unlimited opportunities to incorporate hands-on learning across all curriculum areas with just one topic. What other ideas do you have to expand this project into other curriculum areas?

Project Sustainability Certification

Goals

Participants will:

- ✧ Become familiar with some of the basic steps to creating a sustainable Habitat project
- ✧ Learn the 4-H Wildlife Stewards program expectations for achieving four levels of certification
- ✧ Learn new methods for introducing and teaching a large number of new concepts or ideas

Scheduled time

45–60 minutes

Location

Inside, with enough room for four learning stations

AV equipment

- ✧ DVD or VHS player

Presentation materials

- ✧ Video: “4-H Wildlife Stewards Project Sustainability Certification” from the Toolkit DVD
- ✧ Samples of certification awards (i.e., youth certificates, plaques, etc.)

Level I—Planning Stage Game

- ✧ 4-H Wildlife Stewards training brochure
- ✧ Felt square with three pictures of human faces glued onto it
- ✧ A pair of dice
- ✧ Computer diskette
- ✧ Small piece of paper marked with a big “X”
- ✧ Small figurine of a house or school (such as a hotel from the game Monopoly)
- ✧ Film canister
- ✧ Piece of a map
- ✧ Graph paper
- ✧ Plastic insect
- ✧ Toy soccer ball
- ✧ The number “50” written on a small piece of paper
- ✧ Play money
- ✧ “PTA” written on a small piece of paper
- ✧ 4-H pencil
- ✧ “\$75.00 Award” (create your own)

Level II—Creating Stage Game

- ✧ Project Certification Memory Game Cards
(see “Advance preparation,” below):

Site Inventory	Establish Resource Library
Update Site Map	Install 4-H Member School Sign
Signage	25% Participation
Summer Maintenance	Vandalism Prevention
1-year Timeline	Corroboree Exchange
Secure Tools and Supplies	Habitat Team
School Presentation	Parent Volunteers
Community Partner	Bulletin Board
4-H School Newsletter	Maintain Project Journal
Submit Grant Application	Student Summit
4-H After-school Club	4-H County Fair
4-H Camp	
Pictures of students, teachers, and parents working in the Habitat	

Level III—Sharing and Involving Stage Game

- ✧ Flip chart and markers

Level IV—Civic Action Stage Game

- ✧ Fill-in-the-blank and word scrambles
- ✧ Answer cards for Civic Action Stage Puzzles
(see “Advance preparation,” below)

Resources

- ✧ *Oregon 4-H Wildlife Stewards Project Certification Handbook*, pages 6–22

Procedure

Advance preparation

Schedule about 15 minutes to complete these tasks.

- ✧ Identify four training team staff to lead the games, one for each station.
- ✧ Make sure all staff practice their game a few times before they lead the activity.
- ✧ Set up four separate areas for the Project Certification Games.
- ✧ Set up the games according to the instructions for each.
- ✧ Make two sets of Project Certification Memory Game Cards on 3x5 notecards. For each set, in bold lettering, write one phrase from the list on one side of each card.
- ✧ Make answer cards for the Civic Action Stage Puzzles, one card for each word.

Introduction

5 minutes

- ✧ Explain:

The goal of this session is to help you gain an understanding of and familiarity with the 4-H Wildlife Stewards Project Certification Program.

- ✧ Show the video “4-H Wildlife Stewards Project Sustainability Certification.”

Project Certification Handbook

15 minutes

- ✧ Ask participants to look at the *Oregon 4-H Wildlife Stewards Project Certification Handbook*, pages 6–22. Summarize each of the four certification levels and some important steps at each level.

- ✧ Explain:

4-H Wildlife Stewards Member Schools complete a series of four project Levels of Advancement. At each level, your local or state Extension 4-H provides training, support, and recognition for school-wide efforts.

- Level One: Planning stage
- Level Two: Creating stage
- Level Three: Sharing and Involving stage
- Level Four: Civic Action stage

4-H Wildlife Stewards Member Schools must meet minimum requirements at each level in order to complete certification. The requirements have a point value; a school must earn a minimum number of points to attain each level of certification. 4-H Wildlife Stewards Member Schools may work on requirements at more than one level at a time; however, certification must be completed in order by level.

At each level of certification, 4-H Wildlife Stewards Member Schools must demonstrate accomplishments in each of the following categories:

- Site development
- Student projects and participation
- Annual timeline and goals
- Habitat Team and partnerships
- Record keeping
- Budget and fundraising
- Celebrating success
- Enrichment opportunities

- ✧ Explain the process for certifying a Habitat Education Site, and identify the awards that can be won for achieving each level.
- ✧ Highlight some of the resources and tools in sections II, III, and IV of the 4-H WLS *Project Certification Handbook*.

Certification games

25 to 35 minutes

- ✧ Divide the group into equal teams of three to five members.
- ✧ Designate one staff member as the timekeeper. The timekeeper calls when to start and stop; he or she should be sure that each team is ready at the next station before calling "Start."
- ✧ Each team spends 5 to 7 minutes at each learning station (game).

- ✧ Figure in a few minutes for teams to shift to the next game.
- ✧ Give a prize or reward to the team that earns the most points.

Game instructions

Level I—Planning Stage Game

A memory game

- ✧ Read each Advancement (see chart below) and place the object that symbolizes it on the table.
- ✧ After you've matched objects for all 16 Advancements, cover the items with a cloth.
- ✧ Ask team members to recall as many items as they can, and what they stand for.
- ✧ Teams receive 1 point per item that they recall.
- ✧ Remember to write down the number of points earned by each team at your station.

Planning Stage Game

Advancement	Symbol
1. Send at least one person to 4-H Wildlife Stewards training.	4-H WLS brochure
2. Form a Habitat Team.	Felt square with faces
3. Develop 1-, 3-, and 5-year goals.	Dice
4. Set up a system of communication.	Computer diskette
5. Locate a site for the project.	"X"
6. Get school district approval.	Figurine of house or school
7. Take "Before" pictures.	Film canister
8. Map the school site.	Piece of a map
9. Gather baseline data.	Graph paper
10. Teachers use the site for lessons.	Plastic insect
11. Kick-off Celebration	Toy soccer ball
12. Submit 50 hours of payback.	"50"
13. Identify funding sources.	Play money
14. Give a presentation to the PTA.	"PTA"
15. Turn in paperwork (In-School Enrollment and Member School Application).	4-H pencil
16. Complete Level One.	"\$75.00 Award"

Level II—Creating Stage Game

A memory game

- ✦ Shuffle the Project Certification Memory Game Cards. Lay the cards face down in 8 rows of 6 cards per row.

- ✦ Demonstrate by turning over two cards. Explain:

Teams earn 1 point for every match they make by turning over only one pair of cards at a time. When a correct match is made, the activity leader very briefly explains or elaborates. For example, for "Summer Maintenance" I might say, "Each school should have a written summer maintenance plan by Level Two. A summer maintenance worksheet is in your 4-H Project Certification Handbook."

Then, the team places the pair to the side and continues.

The object of this game is to get as many matches as possible in the 5 minutes allowed.

- ✦ Remember to write down the number of points earned by each team at your station.

Note: If teams get too competitive, remind them that the game is to make learning fun.

Level III—Sharing and Involving Stage Game

A Pictionary-type game

- ✦ Draw a grid of 12 squares on a piece of flip-chart paper. Explain:

Here are **SOME** of the things that happen at Level III.

- ✦ In each square, quickly draw the symbol or representative picture for each Advancement (see chart below), and explain what each picture stands for. It should take less than a minute to quickly go through the 12 items.

- ✦ With the time remaining, complete as many of the steps below as you can.

1. After drawing and reading all 12 Advancements, ask teams to name the Advancement as you point to each picture in order. Teams receive 1 point per item that they can recall.
2. On a new flip-chart page, quickly draw the grid again. Point to each empty square in order, and ask the team what goes in that square. Teams receive 1 point for each square they can recall.
3. Using the same flip-chart page, point to an empty square at random and have the team identify what goes in that square.

Sharing and Involving Stage Game

Advancement	Representative picture
1. Establish a wildlife monitoring plan.	Draw a simple picture of an animal.
2. Students share the project with special guests (county commissioners, school board).	Draw a picture of a happy face wearing a crown.
3. Establish a volunteer management plan.	Draw a report (this could be a rectangle with two columns of horizontal lines).
4. Host a school site tour.	Draw a picture of a car.
5. Compost cafeteria food waste.	Draw a picture of a worm.
6. 75% of the student body is involved with the program.	Draw a picture of a pie graph with 75% darkened.
7. Cross-age mentoring program	Draw a big stick person and a little stick person holding hands.
8. Exhibit educational displays at county fair.	Draw a "poster" with picture(s) and scribbled text.
9. Long-range funding from partners	Draw a big dollar sign (\$).
10. Implement a streamside restoration project.	Draw a stream.
11. Host a curriculum training for teachers.	Draw an apple.
12. Recruit more parents to attend 4-H Wildlife Stewards training.	Draw three or four smiley faces.

4. On a new flip-chart page, have the team list as many items for Level III as they can.

- ✧ Remember to mark down the number of points earned by each team at your station.

Level IV—Civic Action Stage Game

Word scrambles and fill-in-the-blank game

- ✧ On two pieces of flip-chart paper, write the Civic Action Stage Puzzles. Remember to leave enough room below each puzzle to place the answer cards when a team figures out the answer.

_ _ A _ _ I _ _ _ _ ND _ _ S _ _ R _ N _
(Planning and Sharing)

_ A _ NT _ _ N _ _ T _ E _ _ STIE
(Maintain The Site)

H-4 LIWIDLEF _ TE _ AR _ S
BIATTAH MEAT
(4-H Wildlife Stewards Habitat Team)

ROCDRE GPIKEEN
(Record Keeping)

RATBELCEE CCSSEUS
(Celebrate Success)

- ✧ Explain:

At this stage, youth are becoming more involved with their community, using advanced leadership skills to help other Member schools, and participating in community projects.

- ✧ Teams try to solve the Civic Action Stage Puzzles. After they have figured them out, place the corresponding answer cards under each Advancement heading and explain them.
- ✧ Participants receive 1 point for each word they decipher.
- ✧ Remember to write down the number of points earned by each team at your station.

Closing

5 minutes

- ✧ Call all the groups back together and briefly review each of the Levels.

- ✧ Explain:

The Certification Program is not only a way to reward and recognize schools that continue to develop and enhance their Habitat for student learning. It also provides a roadmap and strategies for ensuring that your Habitat Education Site is sustained over time and remains a source of meaningful learning experiences for your students.

- ✧ Award WLS \$ to the team(s) that scored the most points.

Break

15 minutes

Why Should I Keep a Project Notebook?

Goals

Participants will:

- ✧ Learn the importance of keeping a project notebook
- ✧ Understand what the elements of a successful project notebook are
- ✧ Learn how to create a project notebook
- ✧ See examples of 4-H Wildlife Stewards Member School projects

Scheduled time

20 to 30 minutes

Location

Classroom or meeting room, or outdoors (weather permitting)

AV equipment

None

Presentation materials

- ✧ From Appendix B:
 - Sample Project Notebook pages
- ✧ Examples of 4-H Wildlife Stewards Member School notebooks. (If there are no examples available, consider making up a sample project

notebook with pictures, certificates, and other sample documentation.)

- ✦ Sample logos of 4-H, 4-H Wildlife Stewards, Oregon State University Extension Service, your state Extension program, and of any agency partners

Resource

- ✦ Develop a Project Notebook in the *4-H Wildlife Stewards Volunteer Handbook*, pages 37–38.

Procedure

Advance preparation

- ✦ Borrow sample project notebooks from 4-H Wildlife Stewards Member Schools in your area. (Photocopy sections of notebooks from other counties if you do not have any local ones).
- ✦ Put together a 3-ring binder with a clear-view cover, page protectors, and dividers
- ✦ Gather scrapbooking ideas and examples to share (optional)

Presentation

15–20 minutes

- ✦ Introduction: Why keeping a project notebook is important. Refer participants to the *4-H Wildlife Stewards Volunteer Handbook*, pages 37–38.
- ✦ As you discuss the various reasons for keeping a project notebook, showcase project ideas in the notebook samples from 4-H Wildlife Stewards Member Schools.
- ✦ Also point out examples of important elements that are missing (such as no captions for photos, no dates they were taken, no dates projects took place).
- ✦ Show the 3-ring, clear-view binder with page protectors and dividers as an example of a starting place for a project notebook.
- ✦ Required notebook components include:
 - 4-H logo
 - 4-H Wildlife Stewards logo
 - Oregon State University Extension Service logo
 - Contact phone number for a 4-H Wildlife Stewards volunteer and/or teacher(s) involved with the project

- Contact phone number for more information about the 4-H Wildlife Stewards Program (your local Extension agent)

- ✦ Be sure you have the correct 4-H, 4-H Wildlife Stewards, and OSUES logos.
- For best-quality copies of logos (4-H Clover, OSUES, and 4-H Wildlife Stewards), go to www.wildlifestewards.4h.oregonstate.edu, and then “Resources.”

Summary

5 minutes

- ✦ Participants can view sample notebooks and ask questions about 4-H Wildlife Stewards Member School projects.

Habitat Education Site Signage

Goals

Participants will learn:

- ✦ Importance of Habitat Education Site signage
- ✦ Considerations when designing and placing signage in a Habitat Education Site
- ✦ Easy and inexpensive construction ideas

Scheduled time

30 minutes

Location

Classroom or meeting room, or outdoors (weather permitting)

AV equipment

None

Presentation materials

- ✦ Painted wooden sign
- ✦ Laminated sign
- ✦ Popsicle stick sign
- ✦ Frozen orange juice lid marker
- ✦ Plastic photo holders with sign

Resources

- ✦ Habitat Site Signage, in the *4-H Wildlife Stewards Volunteer Handbook*, pages 72–73.

Procedure

Advance preparation

Make some sample Habitat Education Site signs as listed above, or borrow signs from other schools.

Introduction

5 minutes

- ✧ Ask participants why habitat signage is important for a school Habitat Education Site (possible answers: educating the public, recognition, helping kids identify and learn plants).
- ✧ List ideas on a blackboard or large piece of paper.
- ✧ Identify considerations for signage in a Habitat Education Site. Be sure to include durability, cost, and visibility.
- ✧ Refer participants to pages 72–73 in their *4-H Wildlife Stewards Volunteer Handbook* for more information.

Group exercise

20 minutes

- ✧ Divide participants into groups. Ideally, each group's members are affiliated with the same Habitat Education Site.
- ✧ Each group identifies specific considerations for their site.
- ✧ Each group identifies resources they have for signage (money, art department support, supplies).
- ✧ Each group creates a timeline and goal for creating and installing interpretive or information signage for the Habitat Education Site. (Note: students must be involved in this step.)
- ✧ Each group reports on their discussion.

Summary

5 minutes

- ✧ Ask participants for successes or failures with signage at their school (i.e., other inexpensive ideas, other ways to involve students, vandalism).
- ✧ Remind participants:
This is the students' project. As much as possible, let students research, plan, and create their own signage for the Habitat.

School Bulletin Boards

Goals

Participants will learn:

- ✧ Why it's important to create school bulletin boards
- ✧ How to create and update a bulletin board at the school so others can learn about the 4-H Wildlife Stewards Habitat Education Site

Scheduled time

20 to 30 minutes

Location

Classroom or meeting room

AV equipment

None

Presentation materials

- ✧ From Appendix B:
 - Headings in different sizes from the Bulletin Board Sample Headings worksheet
- ✧ Samples of bright colored paper
- ✧ 4-H Clover and 4-H Wildlife Stewards logo in different sizes
- ✧ Sample pictures of students, teachers, and parents working in a Habitat
- ✧ Sample Habitat maps
- ✧ Cutouts of birds, butterflies, and other wildlife
- ✧ Sample student poems
- ✧ Sample contact information signage
- ✧ Colored markers
- ✧ Two large cardboard display boards (often found at office supply stores)

Handouts

None

Resources

- ✧ School Bulletin Boards, *Oregon 4-H Wildlife Stewards Volunteer Handbook*, pages 41–42
- ✧ Picture of a sample bulletin board, *Oregon 4-H Wildlife Stewards Project Certification Handbook*, page 59

Procedure

Advance preparation

- ✧ Gather materials to make two sample bulletin boards.

Introduction

5 minutes

- ✧ Review why it is important to have a bulletin board.
 - Keep the school community updated on the project
 - Recruit others to get involved
 - Recognize and reward students by displaying their work
 - Publicly recognize and reward volunteers and donors by announcing their contributions
 - Inform the community-at-large about local flora and fauna, soils, etc.
 - Inform the school community about student science projects
 - Announce dates and times of work parties, celebrations, student awards, etc.
- ✧ Refer participants to pages 41–42 in the *Oregon 4-H Wildlife Stewards Volunteer Handbook*.

What makes a good bulletin board?

5 minutes

- ✧ Review the key components that must be included on the bulletin board.
- ✧ Review other items that can be included on a school bulletin board.
- ✧ Explain:

Most important to remember is to keep your display board simple, uncluttered, and interesting.

Place the bulletin board somewhere close to the front of the school entrance. In that spot, visitors, teachers, and students will see it often.

Keep your bulletin board current, featuring activities and work in the Habitat. Update it at least once a month and include a calendar of events (such as work parties).

Choose colorful, eye-catching photos to “grab” your audience. Use 8 x 10 photos that can be seen from a distance. Mount photos on black foamcore. Small squares of Velcro affixed with contact

cement hold the mounted photos to the display board.

You can get templates for display board signage from the 4-H Wildlife Stewards office. Always display the logos for 4-H, your state Extension Service, and 4-H Wildlife Stewards.

Laminate signs for durability. They also can be attached to the display board with Velcro squares.

You can order large, cloth 4-H Clovers from the National 4-H office. (See Appendix D for how to order.)

Group exercise

15 minutes

- ✧ Divide the group in two. Explain that each small group will make a display board.
- ✧ Show all the materials provided.
- ✧ Explain:

You have 10 minutes to lay out your display board with the materials provided.

So that we can reuse the materials in other trainings, please do not glue or tape anything to the display board.
- ✧ After 10 minutes, bring the groups together to review the display boards they created. Seek feedback and input on both designs from all participants.

Summary

5 minutes

- ✧ Remind participants that creating a bulletin board is a Level II Certification requirement.
- ✧ Emphasize:

It is not necessarily the responsibility of the 4-H WLS volunteer or teacher to create and maintain the bulletin board. This is a task that can be delegated to a parent volunteer or a team of older students.

The Habitat Team should set goals for how often the bulletin board is updated and the themes (if any) they would like to use.

Lunch

45 minutes

Discouraging Vandalism

Goals

Participants will learn:

- ↳ Tips for how to discourage vandalism
- ↳ What to do if hit by vandals

Scheduled time

20 to 30 minutes

Location

Classroom with tables and chairs

AV equipment

- ↳ DVD or VHS player
- ↳ Data projector and computer

Presentation materials

- ↳ From Appendix A:
 - Trainer script: "Discouraging Vandalism in Your Habitat Site"
- ↳ PowerPoint slides: "Discouraging Vandalism in Your Habitat Site"
- ↳ Video: "Vandalism Prevention," from the Toolkit DVD

Resources

- ↳ Vandalism and Your Habitat Site, *Oregon 4-H Wildlife Stewards Volunteer Handbook*, pages 61–63.
- ↳ Vandalism Prevention Plan Worksheet, *Oregon 4-H Wildlife Stewards Project Certification Handbook*, pages 74–76.

Procedure

Advance preparation

- ↳ Meet with a law enforcement officer who is familiar with the local schools. Find out if there is a current history of vandalism at the local schools, the profile of a typical vandal in these situations, and if the officer has any advice or suggestions for discouraging vandalism and responding to it when it happens.
- ↳ Set up the "Discouraging Vandalism" PowerPoint presentation and review the trainer script.

Introduction

5 minutes

- ↳ Ask participants what kinds of vandalism have occurred at their school and what they did to resolve it.
- ↳ Explain to participants that vandalism will happen and to be prepared for it.
- ↳ Refer participants to the listed resources for this lesson.

Presentation

15 minutes

- ↳ Show the PowerPoint presentation. Emphasize key points listed in the trainer script.
- ↳ Show the video if time allows.

Summary

5 minutes

- ↳ Review the Vandalism Prevention Plan Worksheet in the *4-H WLS Project Certification Handbook*.
- ↳ Explain:

This worksheet is one of the required forms for Level Two Certification. It would be a good one for the Habitat Team to discuss and complete at a Habitat Team meeting.

Summer Maintenance Plan

Goals

Participants will:

- ↳ Learn why it is important to have a summer maintenance plan
- ↳ Understand the important elements of a successful summer maintenance plan

Location

Classroom or meeting room

Scheduled time

25 to 30 minutes

AV equipment

- ↳ Data projector and computer
- ↳ DVD or VHS projector

Presentation materials

- ✧ From Appendix A:
 - Trainer script: "Summer in the Habitat"
- ✧ PowerPoint slides: "Summer in the Habitat"
- ✧ Video: "Summer Maintenance," from the Tool-kit DVD

Resources

- ✧ Summer Maintenance Plan Worksheet, in the *Oregon 4-H Wildlife Stewards Project Certification Handbook*, pages 60–62

Procedure

Advance preparation

- ✧ Review Section IV in the *Oregon 4-H Wildlife Stewards Volunteer Handbook*. This section contains valuable information on sustaining a Habitat year round. Because most schools are closed in summer, it's especially important to plan for Habitat Education Site summer maintenance.
- ✧ Review the PowerPoint presentation and the video.
- ✧ Review the tasks listed in the Summer Maintenance Plan Worksheet.
- ✧ Set up the PowerPoint presentation.

Presentation

10–15 minutes

- ✧ Follow the trainer script and invite comments and questions during the presentation. Experienced gardeners could have many helpful ideas for this class.
- ✧ Refer participants to the Summer Maintenance Plan Worksheet (pages 60–62) in their *4-H Wildlife Stewards Project Certification Handbook*.
- ✧ If there is time, ask each participant to list a maintenance tip. Discuss:

Who could do this task? Is it appropriate for students?

Many of these tasks can be handled easily by youth. Don't forget that these projects must involve youth as well as adults. Adult ownership of projects can discourage youth from continuing their involvement.
- ✧ Another option for the presentation is to show the video.

Summary

5 minutes

Emphasize:

Sustaining the Habitat Education Site in the summer months is especially important to its success. This can be a wonderful contribution to the school community and a rich experience for youth, adults, and families.

Student Journals and Record Sheets

Scheduled time

15 to 20 minutes

Goals

Participants will:

- ✧ Understand the value of a student journal and age-appropriate data sheets
- ✧ Get ideas for student journals
- ✧ Briefly review the state-specific 4-H natural science record sheets

Location

Classroom or meeting room, or outside (weather permitting)

AV equipment

None

Presentation materials

- ✧ Sample student journals, if available
- ✧ Oregon 4-H Natural Science record sheets (or your state's 4-H record books for natural resources projects)

Resources

- ✧ Junior 4-H Wildlife Stewards Student Journal, in the *Oregon 4-H Wildlife Stewards Volunteer Handbook*, page 74

Procedure

Advance preparation

- ✧ Review the resource listed above.
- ✧ Download Oregon 4-H Natural Science record sheets at extension.oregonstate.edu/catalog/4h/ under "Natural Science."

Introduction

2 minutes

↳ Explain:

Nature journals can be a wonderful record-keeping tool for students. They also can provide a special place for students to express themselves through drawing, poetry, and prose writing. Science is not just about data collection but includes our observations and feelings when we are outside in nature.

In this class, we'll get some ideas of what might be included in a student journal, and look at some examples of age-appropriate data collection sheets.

Review student journals and data collection sheets

10–12 minutes

↳ Review the sample student journals with participants. Show appropriate pages as you present points. Review and explain your state's 4-H natural science record sheets.

↳ Discuss:

Goal setting is an important skill. In all 4-H programs, youth learn to set project goals and record the efforts they put into reaching those goals.

You can give students a tool for making map recording easier. Create and hand out a sheet of symbols that make identifying features in the Habitat Education Site universal among students.

Suggest that students have sections in their journal for seasonal observations and for writing down the names of people and other resources that helped them learn more about the Habitat Site.

Daily calendars help students record all that they have participated in. Planting and wildlife observation records can be used for scientific study of a particular species.

Easy-to-use plant and animal identification cards can be photocopied and used as wildlife field study cards.

Be sure students have plenty of pages just for expressing themselves.

Debrief

2 minutes

Ask for other tips or suggestions from the group about project or nature journals.

Writing Grants to Support Your Project

Goals

Participants will learn:

- ↳ How to submit a grant proposal
- ↳ Suggestions for what makes a good grant proposal
- ↳ Local granting agencies

Scheduled time

30 minutes

Location

Classroom or meeting room

AV equipment

None

Presentation materials

None

Handout

- ↳ From the 4-H WLS website <http://4hwildlifestewards.org/resources> and links/
grants.htm
- List of granting agencies

Resources

- ↳ Write Grants to Support Your Habitat Project, *Oregon 4-H Wildlife Stewards Volunteer Handbook*, pages 57–60

Procedure

Advance preparation

Identify and research 5 to 10 agencies or organizations that give small grants (less than \$5,000) and to whom it would be easy to apply. The list of granting agencies (handout) identifies some local, state, and national grants that many schools have received.

Introduction

2–3 minutes

- ↳ Refer trainees to page 57 in the *Oregon 4-H Wildlife Stewards Volunteer Handbook*.
- ↳ Review the goals of this presentation.

↳ Ask if anyone in the group has submitted a grant. If yes, ask one or two people to talk about their success (or lack of).

↳ Explain:

"Grant writing" is a term that sends many people running away fast. It seems like an overwhelming and intimidating project—but it doesn't have to be. It can be a rewarding experience and a tool to help you better plan and develop your project.

Writing a grant proposal is putting your dream or vision into words. It's a story. It is also an opportunity for you to invite others to be a part of your vision. You are selling others on your idea and inviting them to be a partner.

Grant requests to fund Habitat Education Site projects have two distinct advantages: they support kids and community working together, and they include the environment. These are two strong issues that many foundations and organizations like to support.

Types of grants

2 minutes

↳ Explain:

Start with a small, simple grant. There are many grants under \$2,500 that require proposals only 1 to 2 pages long and that are easier to obtain because there are fewer competitors.

Grants ranging from \$2,500 to \$50,000 usually require more work and more detail. These grant proposals are generally 15 to 30 pages long, require evidence of partnerships and collaborations, a detailed budget, and may require matching funds. Grants at this level are much more competitive.

Federal grants and grants from large foundations offer greater funds for multi-year projects. These proposals are often 50 to 100 pages, require cost share, letters of commitment from collaborators, research to support your ideas, and information on how this project will be sustained. These grants are very competitive, but the payoff is huge if you receive one.

Apply for smaller grants to build some success before tackling the more competitive grants. No matter what type of grant you write, however, all

grants have several things in common. Here are some pointers to help you get started.

Tips for writing grants

5–8 minutes

Review the grant writing "top ten" list (4-H WLS Volunteer Handbook, pages 57–58).

1. Know your audience

-Do your homework.

-Know the mission, values, and priorities of the organization or foundation you are contacting. Research the types of projects they fund, and know what kinds of projects they don't fund.

-Find out if a visit by phone or in person is appropriate. If so, establish a relationship with the funder before you request funding.

2. Follow the guidelines

-How many words or pages do they allow?

-Do they require that you use a specific name and size of font?

-What information do they want included in the proposal?

-Do they require multiple copies of the proposal?

-Will they fund staff costs, transportation costs, office supplies?

-What will they not fund?

-What is the maximum amount they will fund?

-Do they require a cost share?

-Who is allowed to submit a proposal?

It is very likely that if you don't follow the granting agency's guidelines, your proposal will not even be considered for review.

3. Read your application

-Be sure there are no typographical or grammatical errors.

-Ask someone to proof your application before you submit it.

-Double check to be sure the names of the contact people and the foundation are spelled correctly.

4. Honor deadlines

-Pay careful attention to whether the guidelines state that the proposal must be postmarked by a certain date or received by a certain date. If it must be received by a certain date, send your

proposal at least 5 business days before the deadline.

-Check to see if there is a time of day it must be postmarked or received.

5. Keep it clear and concise

-State who you are, the name of your program, how much money you are seeking, and how the money will be used.

-Make your story clear and powerful, and tell it only once, not again and again.

6. Submit your reports

-Most funders require an end-of-project report; some may require progress reports during your project. Submit them on time.

-If your project has changed due to unforeseen circumstances, state the situation and what happened.

7. Passion must be evident

-Don't be afraid to show your passion. Funders can tell when a professional grant writer who is not on staff wrote a proposal—these proposals often lack the passion and vision of someone close to the project.

-Use a style that reflects you and your project.

8. Do not use a shotgun approach

-There is nothing more disheartening to a grant funder than to read a prepackaged proposal addressed to "Dear Friend." It is clear that no thought or consideration was given to the funder's needs and priorities.

9. It all starts with a good idea

-Keep your project proposal to one idea. Take the one good idea from your project and develop it.

-Some funders are willing to discuss your idea before you submit your proposal. They can help you flesh out the idea and turn it into a concrete and powerful project.

10. Be correct

-Do you have the correct and current name of the contact person for these grants?

-Is your budget accurate? Proposals that present a dreamy concept but no concrete answers about how much a project will cost frustrate funders.

-Do not ask for funding before doing your homework.

-Do not include incorrect information.

Review local grants

10 minutes

Distribute the list of local granting agencies. Point out key aspects of each grant and give a few pointers for submitting them.

4-H Junior Wildlife Stewards After-school Clubs

Goals

Participants will learn:

- ✧ How 4-H after-school clubs can enhance the school-based project or serve as an alternative for delivering an in-school program
- ✧ Key principles for setting up an after-school 4-H club

Time

20 to 30 minutes

Location

Classroom with tables and chairs

AV equipment

- ✧ Data projector and computer

Presentation materials

- ✧ From Appendix A:
 - Trainer script: "4-H Junior Wildlife Stewards After-school Clubs"
- ✧ PowerPoint slides: "4-H Junior Wildlife Stewards After-school Clubs"

Handouts

- ✧ State and local guidelines for 4-H clubs (optional)

Resources

- ✧ From Oregon State University Extension Service 4-H online catalog at extension.oregon-state.edu/catalog/4h/ (Other states may have their own 4-H leader resource materials.)
 - *Active Teaching, Active Learning—Teaching Tools and Techniques* (4-H 0259L)

- *Starting a 4-H Club or Group* (4-H 0272L)
- ✦ Order from Oregon State University Extension Service (see Appendix D for how to order):
- *Exciting Meetings for Great Groups* (4-H 0256L)

Procedure

Advance preparation

- ✦ Contact the local and state 4-H offices to find out both local and state guidelines for 4-H after-school clubs
- ✦ Revise the “4-H Junior Wildlife Stewards After-school Clubs” PowerPoint presentation as needed to meet state-specific guidelines for 4-H clubs.
- ✦ Set up the PowerPoint presentation and review the trainer script.

Introduction

5 minutes

- ✦ Ask:

Were any of you in a 4-H club as a child? What was your most memorable experience?

Do any of you currently lead a 4-H club, or have you led one in the past? What was your most memorable experience?

- ✦ Explain:

This presentation teaches you how 4-H after-school clubs can enhance the school-based project or serve as an alternative to an in-school program; and key principles for setting up an after-school 4-H club.

- ✦ Refer participants to the publications listed under “Resources” (or distribute copies of your state and local guidelines for 4-H clubs).

- ✦ Explain:

A 4-H after-school club might be a way to get a 4-H Wildlife Stewards program started at a school. If teachers, community partners, or parents are reluctant to get involved, a 4-H club can be an alternative. Many schools have found that once a club is established and the Habitat Education Site starts to develop, people who were reluctant at first are more willing to get involved because they see the program's benefits.

Presentation

15 minutes

- ✦ Show the PowerPoint presentation. Emphasize key points listed in the trainer script.

Summary

5 minutes

- Explain:

Starting an after-school club is one of the “Enrichment opportunities” listed for each level of the Project Certification process.

Promoting Your Program

Goals

Participants will:

- ✦ Understand how to write a basic news release for newspaper and radio
- ✦ Gain confidence to talk about their Habitat project to the media

Scheduled time

20 to 30 minutes

Location

Classroom with tables and chairs

AV equipment

None

Handouts

- ✦ From Appendix B:
 - Promoting the 4-H Wildlife Stewards Program—Media Basics
 - Promoting the 4-H Wildlife Stewards Program—What Makes News?

Presentation materials

- ✦ Flip chart
- ✦ Notebook paper and pens

Resources

- ✦ *Associated Press Stylebook* (available at most bookstores)

Procedure

Advance preparation

Photocopy the handouts.

Introduction

↳ Explain:

Keeping Habitat activities in the public eye is a big support. Here are some tips for working with the media.

- ↳ Distribute and review the handouts, highlighting key points.
 - For print, know your audience. In a newspaper story, just state the facts. Feature stories may effervesce with adjectives.
 - Develop a relationship with media reporters. Know who to contact. Keep telling them what's happening with the Wildlife Habitat. They'll pick newsworthy topics when they need them.
- ↳ Conduct mock interviews with volunteers, and critique the contents.

Writing press releases

↳ Write headings for news releases on the flip chart.

↳ Explain:

Keep in mind the basic lesson from Journalism 101: "the 5 Ws and the H" (who, what, where, when, why, and how). Here's an example of a school news release.

Who—Eight members of the 4-H Wildlife Stewards Program at Harrisburg School

What—Will build four raised beds with 2 x 10 pressure-treated lumber, and then plant native plants in them

Where—Their Habitat Education Site is on the school playground at Territorial Road and 35th Street, east of downtown Harrisburg.

When—Lumber was delivered in January. Beds will be filled with garden soil and planted in the spring, when weather allows.

Why—The raised beds will allow students to grow plants that attract wildlife.

How—The project is made possible by community support. The lumber was donated and delivered to the school. Premium gardening soil will be provided by a grant from the Joan Engeldinger Philanthropic Trust.

- ↳ Allow participants from the same school to write a news release together.
- ↳ If time allows, have teams read their press releases to the group.

Radio interviews

↳ Explain:

Practice to be an effective speaker on the radio. Speak slowly in a conversational tone. Plan ahead what you want to say. Practice it aloud.

Keep sentences short and to the point. Don't guess. It's better to say you don't know.

Women: project and deepen your voice.

Men: enunciate and express enthusiasm.

Deliver your message, even if you are not asked. Here's a script example: "The work party will be on Saturday March 9, beginning at 9 a.m. We'll meet in the parking lot at Foster School. Bring gloves, clippers, and a lunch. Be sure to dress for the weather. We'll be cutting down and hauling away brush and blackberries. Everyone is invited to work for an hour, or all day. We appreciate all the help we can get!"

- ↳ If time allows, have trainees practice with each other.

Television

↳ Explain:

Relax.

Visualize yourself talking with a friend.

Hold something.

Slow down both your speech and movement.

Buy a copy of the segment to use as a promotional tool for your program.

General tips for public relations

- ↳ Photography: A Picture Is Worth 10,000 Words.

Take lots of pictures to get one good one. Get close to your subjects. Capture emotion—faces and actions tell a story.

↳ Names Make News

People are motivated by recognition. Feature local folks. Politicians hold the purse strings to schools, so give them credit when they participate.

- ↳ The "Gee Whiz!" Factor: Timely statistics speak.

In Oregon in 2005, over 56,000 4-H members participated in more than 77,000 projects. They

were led by 8,000 adult volunteers who contributed over \$19 million in their time's value.

- ✧ Interesting, unusual stories attract readers (and editors).

The youth/adult partnerships seen with the 4-H Wildlife Stewards program may generate ideas new to popular thought.

- ✧ 4-H Wildlife Stewards story examples
 - Kids and adults working together
 - Protecting the environment
 - Caring for the future
 - Attitudes for the long term—not just “me now”
- ✧ Include features about anything a little unusual.
 - Students or volunteers who went above and beyond the call of duty or who brought a unique contribution to the program. For example, they might have helped organize an art mural on the school wall or helped bring 200 community members together for a planting day.
 - Disabled participants
 - Intergenerational partnerships
 - A service dog in the Habitat
 - Businesses committed to helping community
 - Volunteers or staff (Extension agents)

Science Inquiry Presentations

Goals

Participants will:

- ✧ Prepare and present their team findings for their science inquiry project
- ✧ Learn key components of a good presentation
- ✧ Receive feedback and suggestions on their team presentation

Scheduled time

1 hour

Location

Classroom with tables and chairs

AV equipment

None

Handouts

- ✧ From Appendix B:
 - Promotional flyer for 4-H Junior Wildlife Stewards Summit
- ✧ From *Oregon 4-H Wildlife Stewards Project Certification Handbook*:
 - Student Team Oral Presentation Recommendation worksheet, page 27

Presentation materials

- ✧ Poster paper (one for each team)
- ✧ Markers
- ✧ Graph paper
- ✧ Magnifying glasses (optional)
- ✧ Food scales (optional)
- ✧ Rulers
- ✧ Tape
- ✧ Glue
- ✧ WLS \$

Resources

- ✧ 4-H Science Inquiry Learning Model worksheet
- ✧ Guidelines for Student Presentations (pages 25–26), *Oregon 4-H Wildlife Stewards Project Certification Handbook*

Procedure

Advance preparation

- ✧ Photocopy the Student Team Oral Presentation Recommendation worksheet, one copy for each team.
- ✧ Photocopy the 4-H Junior Wildlife Stewards Summit promotional flyer, one for each participant.

Introduction

10 minutes

- ✧ Explain:

Now it's time for you to prepare your team presentations! You've been collecting data from the science inquiry experiments you designed on the first day. Now, organize your final data and prepare a 3- to 5-minute presentation to report your results.

✧ Show participants the materials they can use to create their presentation (poster paper, markers, graph paper, glue, etc.).

✧ Review the five-step process of the 4-H Science Inquiry Learning Model. Emphasize:

The last two steps are the ones that judges are particularly interested in hearing in your presentations. They are:

○ Generalize

-Key question = "So what?"

-Inferring principles to the real world

○ Apply

-Key question = "Now what?"

-What can be done with the information you've learned?

-Apply generalizations to a specific situation.

✧ Point out the training team members who will serve as judges.

✧ Pass out the Student Team Oral Presentation Recommendation worksheet. Emphasize some key points of the worksheet, such as: "Did the team present information not only on the hypothesis, project design, and results, but did they analyze the data and apply what they learned?" and "Was their presentation clear and understandable?"

✧ Explain:

The judges will use this worksheet to evaluate each team's presentation.

You have 30 minutes to prepare your presentation!

Teams prepare presentations

30 minutes

(Training team members can use this time to begin packing up training materials and resources.)

Presentations

20 minutes

✧ Call the group back together, and again point out the judges.

✧ Appoint a training team member to be timekeeper.

✧ Ask for a trainee team to volunteer to make the first presentation. Award them some WLS \$ for being first.

✧ When the timekeeper sees that the team and judges are ready, he or she calls "Start."

✧ When a team has finished, the timekeeper calls out the length of time (minutes and seconds) of the presentation.

✧ While those team members return to their seats, give the judges a couple of minutes to confer. Ask the team a "debriefing" question. Some sample questions include:

What did you enjoy about this experience?

What surprised you the most?

What was the most difficult?

How could you use this experience in your school?

✧ Call the next team up to give their presentation. Repeat the process until all teams have presented.

✧ After the last team has presented, allow 5 minutes for the judges to confer. While the judges are making their final decisions, pass out copies of the promotional materials for the 4-H Junior Wildlife Stewards Summit. Explain:

The activity we've just done is the same process that is used at a 4-H Junior Wildlife Stewards Summit. A 4-H Junior Wildlife Stewards Summit is a gathering of students from around a region or the state. Students give team presentations of their research before a panel of judges, and participate in hands-on workshops.

Schools receive Project Certification points for a team's participation in a Summit.

✧ Ask participants to brainstorm some of the benefits of this exercise beyond developing science skills (for example, teamwork, public speaking, confidence, communication skills).

Presentation of awards, and conclusion

5 minutes

✧ The judges award each team and team member some WLS \$ for their efforts. Judges should make some brief comments about the presentations. Specifically, judges should comment on:

○ Some of the best qualities of each presentation

○ How well each team followed the five-step Science Inquiry Model (particularly the last two steps)

- What each team could do to improve their presentation
- ✍ If one or more teams were especially good, award them extra WLS \$.
- ✍ Congratulate all the teams.

Evaluation, Graduation, and Next Steps

Scheduled time

1 hour

Location

Classroom with tables and chairs

AV equipment

- ✍ Data projector and computer with speakers

Presentation materials

- ✍ PowerPoint slides: "Closing Program"
- ✍ Manila envelope (9 x 12 or larger)

Handouts

- ✍ From Appendix B:
 - Training Evaluation form
 - Certificate of Completion
- ✍ List of state and local Extension 4-H staff

Procedure

Advance preparation

- ✍ Photocopy one training evaluation form for each participant. Create your own, or use the form in Appendix B (revise as needed).
- ✍ Photocopy and sign a Certificate of Completion for each participant. (Or, order color copies from the Oregon 4-H Wildlife Stewards office.)
- ✍ Prepare and photocopy a list of state and local Extension 4-H staff.
- ✍ Review the closing PowerPoint presentation and add your own local pictures or quotes. The presentation is set up to run on its own when you click "play slideshow".
It's nice to add some music to the presentation. You can add music to the PowerPoint file itself by converting music files to a .wav file.

Follow the instructions in the PowerPoint Help section.

Or, you can simply play music as the PowerPoint presentation is running. Examples of music you could use are:

- "Somewhere Over the Rainbow" (various artists)
- "What a Wonderful World" sung by Louis Armstrong
- "WonderfulWorld/Over the Rainbow" sung by Israel "Bruddah Iz" Kamakawiwo'ole
- "Commitment of the Heart" sung by Kenny Loggins

Course evaluation

20 minutes

- ✍ Pass out the training evaluation forms. Explain:
Now the training team needs to learn from you!
Please fill out this course evaluation. The evaluation is anonymous; please do not put your name on it. You can choose to skip any question if you wish. Please give honest feedback, so the training team can improve this training.
- ✍ Show the manila envelope where participants can place their evaluations when they are finished.

Graduation and debriefing

20 minutes

- ✍ The training team members together present the Certificates of Completion to the participants.
- ✍ Call each participant to come up one at a time, and present each with his or her certificate.
- ✍ Ask the participant to answer one of the following questions:
 - What is the first thing you plan to do when you return to your school?
 - What is the single most important thing you learned in this training?
 - What is one thing you will do differently when you return to your school, as a result of taking this course?
 - What did you enjoy the most about this course, and what did you enjoy least?

- After each participant has received a certificate, invite each training team member to make any closing comments.

Next steps

20 minutes

- Explain:

As you now embark on your journey as a 4-H Wildlife Steward, you are not going alone. You have met other training participants and spent over 24 hours with them learning how to create, use, and sustain wildlife habitats on school grounds. Continue to contact and share with each other as you move to the next step at your school.

You also are joining a team of 4-H Wildlife Stewards who are already working in schools. Contact these folks, and learn from them. The 4-H Wildlife Stewards program has a website and a discussion board for 4-H Wildlife Stewards and teachers to share with each other.

- Pass out the list of local and state 4-H and other Extension staff contact information. Remind participants:

Extension has lots of resources you can tap into. There are supportive staff, written materials, videos, education kits, and much more. Your

local Extension 4-H agent can help you find the resources you need.

Also, visit the 4-H Wildlife Stewards website for resources, information, and upcoming events.

Learning is a life-long process. This training has given you some very basic tools to get started, but most of your learning happens after you leave here.

Don't lose faith if things move slowly at first. "If you build it, they will come." People, resources, and money follow success.

Here are some closing comments from scholars, philosophers, and some of our own 4-H Wildlife Stewards and teachers.

- Show the "Closing Program" PowerPoint presentation.
- Conduct the last auctions.
- Wish the participants good luck, and remind them that through the work they're about to begin, children, schools, and communities are becoming stronger.
- On your way home, reflect that this is a wonderful program—and well worth the effort you expended!



Appendix A

PowerPoint Trainer Scripts

Day One—Keys to Success

Welcome and Introduction.....	85
Teaching Science through Experiential Learning	88
Program Overview	92
Using the Habitat Education Site as an Outdoor Learning Lab	102
Public Schools Guidelines	108
Keys to Success.....	112

Day Two—Creating Your Habitat Education Site

Nose of Newt, Toe of Toad, Scale of Skink.....	117
Mapping and Inventory Basics.....	126

Day Three—Sustaining Your Project

Discouraging Vandalism in Your School	133
Summer in the Habitat	137
4-H Junior Wildlife Stewards After-school Clubs	140
Closing Program.....	144

Welcome and Introduction

Slide 1

Show this slide as participants are arriving and registering.

Welcome to the 4-H Wildlife Stewards training. You are joining a growing group of committed volunteers who are “bringing science and nature together one school at a time.”

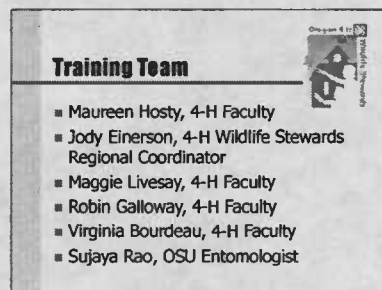
Successful 4-H Wildlife Stewards possess three basic skills: how to work with adults and young people, how to find resources, and how to share basic knowledge of plants and wildlife. This training will help you develop those skills.



Slide 2

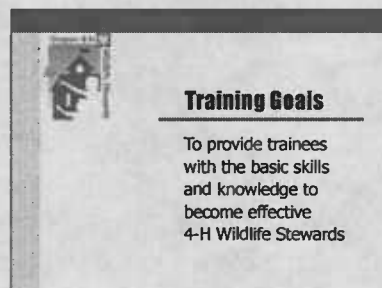
Insert your training team names and their titles.

Learning is a lifelong process. The role of the training staff is to facilitate your learning at this training.



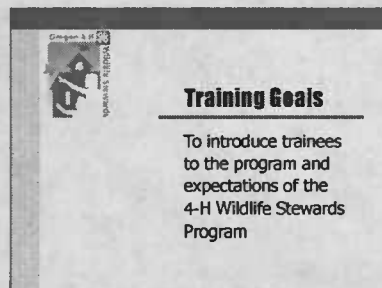
Slide 3

This training has four goals. The first goal is to provide you with the basic skills and knowledge to become effective 4-H Wildlife Stewards. You will not finish this training with all the answers. But, you will gain a good foundation to begin your learning process. Much of your learning will take place after you leave the training, and the 4-H staff’s role is to continue to help facilitate that.



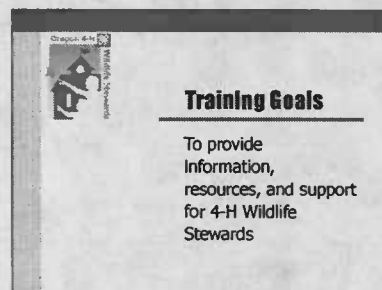
Slide 4

The second goal is that you learn the basic requirements and expectations that schools and volunteers have of this program.



Slide 5

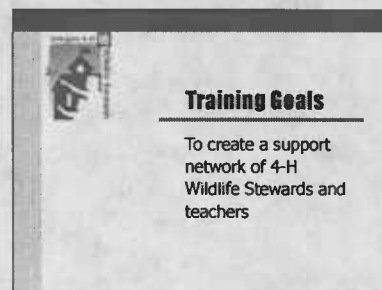
The third goal is that you learn about *many* resources during the course of this training. The key is not to remember all the resources, but to know where to find them when you need them.



Slide 6

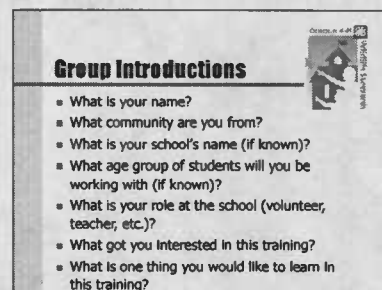
The fourth goal is to foster the growth of the 4-H Wildlife Stewards network. Each person here has a lot to contribute to the group in the way of skills, knowledge, and resources. It's important that you get to meet each other during this training and share skills and information.

The 4-H Wildlife Stewards website discussion board is a good networking tool. Active 4-H Wildlife Stewards are another excellent resource that you can tap.



Slide 7

Show this slide during the individual introductions of participants.



Slide 8

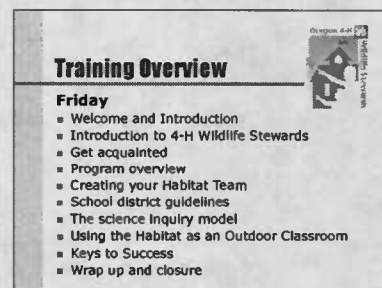
Insert your training schedule here and on the next two slides.

As you show the schedule for each day, highlight important aspects of different topics as time allows.

Emphasize that the training incorporates:

- Learn by doing. Many of the activities involve hands-on experiences.
- Group learning. Feel free to bring your own ideas, resources, or curricula to share with the group. We all learn from each other.
- Demonstration and modeling of many activities and lessons that can be used with youth

Learning does not end here with this training, it only begins here.



Slides 9–10
(View)

Training Overview



Saturday

- Native plants for your Habitat
- Wildlife for your school Habitat
- Curriculum lesson demonstrations
- Inventory and map your site
- Curriculum lesson demonstrations
- Principles of wildlife management
- Promoting your program to others

Training Overview



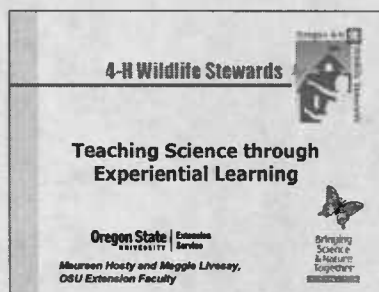
Sunday

- Working with youth: your rights and responsibilities
- Science Investigations in the Habitat
- Sustaining your Habitat project
- Science presentations
- Program and course evaluation
- Wrap-up and next steps

Teaching Science through Experiential Learning

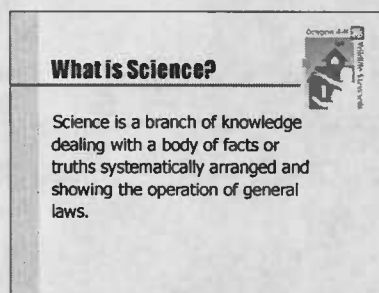
Slide 1 _____

Change names of trainers.
Recognize original authors.



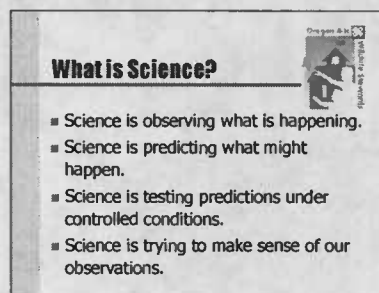
Slide 2 _____

This is a formal definition of science according to Webster's dictionary.



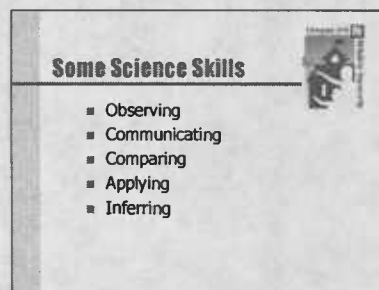
Slide 3 _____

This is a different way of looking at science.



Slide 4 _____

These are science skills that students will develop and use throughout life.

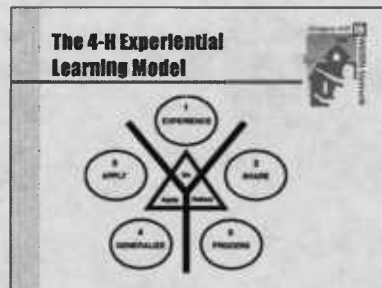


Slide 5

This is the 4-H Experiential Learning model.

This model is used in all projects within 4-H. Whether a member is learning about horses, cooking, or natural science, youth in 4-H “learn by doing.”

We learn using this five-stage process.



Slide 6

The Experience stage.

This is how you hook the kids and get their attention.

Experience

- Doing
- Planning for discovery
- Exploring
- Examining

Slide 7

The Sharing stage.

Students can share their experiences one-on-one with other students, through journals, or perhaps class discussions. Make sure there is enough opportunity for everyone to share in some way.

Share/Reflect

- Share reactions and observations.
- Plan adequate time for discovery.

Slide 8

The Process stage.

Now you begin to get students to think about what they learned. Have some questions prepared ahead of time to facilitate this process.

Process

- Questioning:
 - What do you want to tell me about your experience?
 - What else would you like to know about it?
 - What else might you try?
- Design and plan a simple investigation.

Slide 9

These are the five steps of a simple investigation (refer to the “Science Inquiry Learning Model” handout for more details).


Simple Investigations

1. Write a question or hypothesis.
2. Decide what data you will need to collect.
3. Develop procedures that are organized and logical.
4. Collect the data.
5. Present the data.

Slide 10

This is an important stage in the experiential learning model, and one that is often left out. This is when students start to analyze their data and interpret the results.

Generalize




- Inferring principles to the real world
- Key question: "So what?"
- Analyze and interpret

Slide 11

This important stage also is often left out.

How can students apply what they learned to the real world, and what can be done with what they learned? They should try to be as specific as possible.

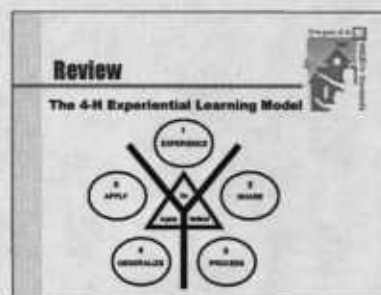
Apply



- Key question: "Now what?"
- What can be done with the information you've learned?
- Apply generalizations to a specific situation.

Slide 12


Review the 4-H Experiential Learning model.



Slide 13

Review each of the following teaching tips. Wherever possible, share personal experiences or stories to emphasize the points.

Teaching Tips




- Try out the activity yourself first.
- Have a general background knowledge of the subject.
- Don't be afraid to say "I don't know."
- Remember, science doesn't always work the first time.
- Allow students to explore at their own pace.

Slide 14

(View)

Teaching Tips



- Act as a role model: be curious.
- Plan more activities than you can get done.
- Use good questioning skills.
- Remember the attention span of the children you are working with.
- Plan how you will introduce the activity or start the lesson.

Slide 15
(View)

Teaching Tips



- Keep a positive attitude about science.
- Let children develop their own ideas.
- Remember: less is more.
- Find the right activity for your group.
- Don't forget: hands-on works best.

Program Overview

Slide 1

(NOTE: Add your state logos and the logos of any partners)



Slide 2

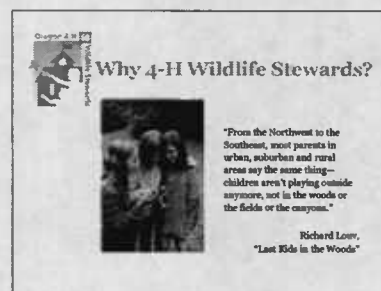
Why Wildlife Stewards?

(Read aloud this quote from Edward Wilson)



Slides 3-4

(View each)



Slides 5–9
(View each)



Why 4-H Wildlife Stewards?

Two recent national studies on schools that use outdoor classrooms and other direct-experience methods showed these programs produced student gains in social studies, science, language arts, and math.



Why 4-H Wildlife Stewards?

These programs improved standardized test scores and grade-point averages and enhanced skills in problem-solving, critical thinking, and decision-making. Not to mention reductions in discipline and behavior problems.



4-H Wildlife Stewards Program

PRESENTATION GOALS



- Introduce the key components of the 4-H Wildlife Stewards Program
- Help participants understand the expectations and requirements for 4-H Wildlife Stewards and 4-H Wildlife Stewards Member Schools, and what support is available



The Vision



4-H Wildlife Stewards create sustainable Habitat Education Sites on school grounds. We promote science learning and stewardship by inspiring, educating, and connecting schools, communities, and natural resource agencies.




Habitat Education Sites



A Habitat Education Site is an area on or near school grounds that provides hands-on science learning opportunities for students, teachers, and community members.


Slide 10

Add any information about the history of your local or state program.



National Science Foundation Support

- ★ The program began in Portland, Oregon in 1996.
- ★ In August 2001, the 4-H Wildlife Stewards Program was awarded a \$690,000 grant from the National Science Foundation to develop this program into a national model and document the project's educational and scientific impacts on students, teachers, and communities.




Slide 11

People from all walks of life join as 4-H WLS volunteers. Some of them are: *(read slide aloud)*




4-H Wildlife Steward Volunteers

- Parents, teachers, principals, and community members.
- Retired natural resource agency professionals
- Community educators and Master Gardeners
- Americorps volunteers




Slide 12

When you complete this training you will be prepared to do these things: *(read slide aloud)*. *(Include next slide)*




4-H Wildlife Stewards are TRAINED TO

- Work with students to encourage inquiry-based science investigations
- Assist teachers in presenting lessons in the Habitat




Slide 13

(Read slide aloud) *(Include next slide)*




4-H Wildlife Stewards are TRAINED TO

- Help students map and inventory their wildlife Habitat Education Site
- Help students research and plan their site




Slide 14

(Read slide aloud) *(Include next slide)*




4-H Wildlife Stewards are TRAINED TO

- Participate in planning meetings with the wildlife Habitat Team
- Plan and coordinate community resources to assist with site development




Slide 15

(Read slide aloud)



**4-H Wildlife Stewards are
TRAINED TO**




- Help students and teachers document the project and share their story with the community

Slide 16

The support you'll receive from Extension 4-H is (read slide aloud):
Add your own local or state support provided beyond what is listed on the slide.




**SUPPORT for
4-H Wildlife Stewards**




- 24-hour basic training
- Supplemental trainings
- Online newsletter

Slide 17

Point out how participants can order curricula from their local or state program and any special partnerships or connections your program has established.




**SUPPORT for
4-H Wildlife Stewards**




- Curriculum from (insert name) University Extension
- Connections to community and Extension resources
- Liability coverage by (insert name) State University Extension

Slide 18

Briefly describe any education kits and supplies that your local or state program provides and how participants can access them.




**Support for 4-H Wildlife
Stewards Member Schools**




- Trained 4-H Wildlife Stewards give 50 hours of volunteer service
- Access to education and curriculum kits and supplies

Slide 19

You can order 4-H Wildlife Stewards Habitat signs with your school name from the national 4-H Wildlife Stewards office in Portland, Oregon. Visit the website www.4hwildlifestewards.org to order your sign online.




**4-H Wildlife Stewards
MEMBER SCHOOLS**



- Public relations and media support for the project to the school, parents, and community
- Certification and signage for Habitat Education Site

Slide 20

NOTE TO TRAINERS: *Slides 20–27 can either be deleted or revised based on your local program statistics.*



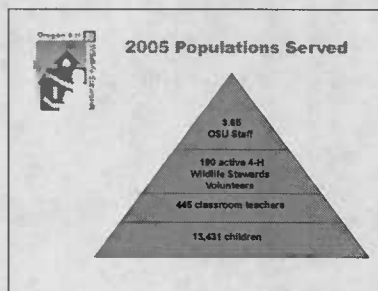
Program Results

Since the program began in 1996 in Oregon—

- 30 trainings held
- 489 volunteers trained
- 190 active volunteers


Slide 21

The 4-H Wildlife Stewards staff model is developed on the principles of building capacity and sustainability. Through training and supporting a cadre of trained volunteers, the 4-H youth program is able to deliver university research-based education programs to hundreds of teachers and thousands of school children each year.




Slide 22

The program is open to boys and girls in grades K-12.



Program Results

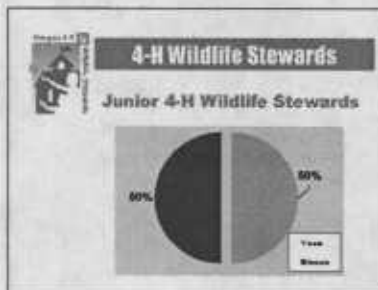

Junior 4-H Wildlife Stewards



- 13,421 children were registered in 4-H Wildlife Stewards programs in 2004
- Boys and girls from grades K-12 were involved


Slide 23–24

(View each.)

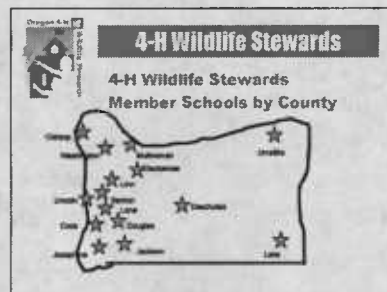
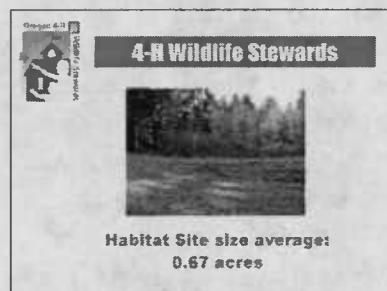
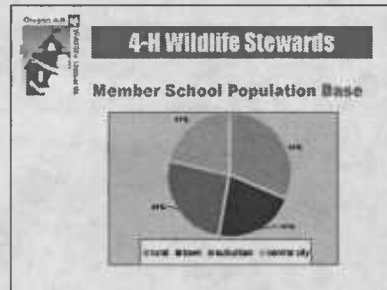
Program Results

4-H Wildlife Stewards Member Schools



- There are 54 currently enrolled 4-H Wildlife Stewards Member Schools.
- There are 4-H Wildlife Stewards Member Schools in 20 of 36 Oregon counties.

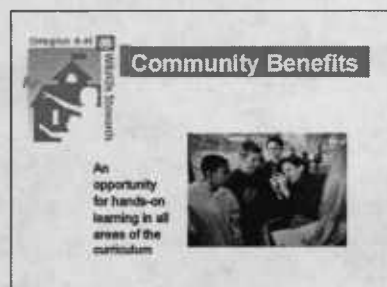
Slide 25–27
(View each.)



Slide 28
4-H Volunteers learn together through workshops, trainings, and conferences.



Slide 29
The benefits of this program extend beyond the school. The entire community benefits when 4-H Wildlife Stewards work together with students and teachers to create a wildlife habitat.



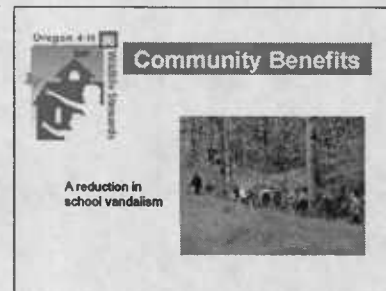
Slide 30

Many 4-H Wildlife Stewards volunteers and teachers report an increase in the diversity of play opportunities and an overall increase in creative play.



Slide 31

One suburban school principal in Portland, Oregon reported that before the 4-H Wildlife Stewards program started at his school, there was school vandalism every week. Within the 3 years that the program has operated in his school, school vandalism was reduced to zero. When kids put sweat equity into something they value, they will go to great lengths to protect what they have built. This has been clearly evident in many 4-H Wildlife Stewards school Habitat sites.



Slide 32

A beautifully improved landscape not only benefits the community. Many teachers and school administrators report that bringing a calming and aesthetic landscape right outside the classroom window has a powerful influence on student learning.



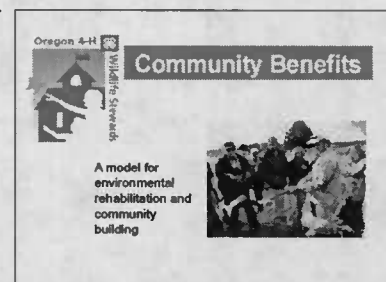
Slide 33

A chemical-free landscape that is able to thrive can have a powerful influence on the community. Community members learn the value of protecting our environment by reducing the amount of artificial chemicals we add to the soil, water, and air.



Slide 34

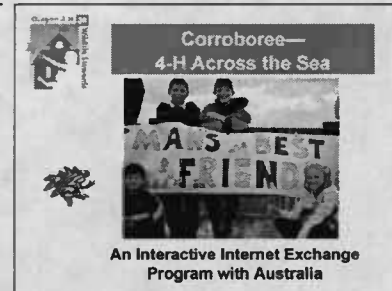
To quote a recent movie, "If you build it, they will come." This is so true of 4-H Wildlife Stewards Habitat projects. Entire communities come together once students and teachers working with 4-H Wildlife Stewards volunteers start creating wildlife habitats on school grounds. Neighbors, community partners, and businesses work closely together to make positive changes in their neighborhood.



Slide 35

The 4-H Corroboree Internet Exchange is open to all 4-H Wildlife Stewards volunteers, teachers, and students. Visit the website at www.4hcorroboree.org to sign up.

You'll learn more about this exchange program later in this training.



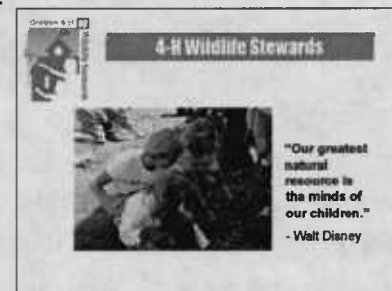
Slide 36

In follow-up evaluations, teachers and students in the 4-H Wildlife Stewards program report that student interest and knowledge in science increased as a result of this project. Teachers also report that this type of engaging, informal science education would not be possible if it were not for the active involvement of 4-H Wildlife Stewards volunteers.



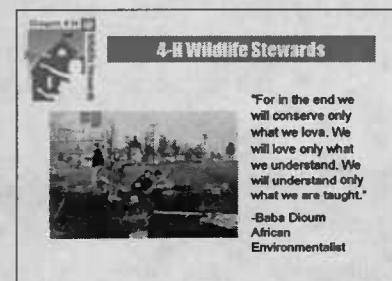
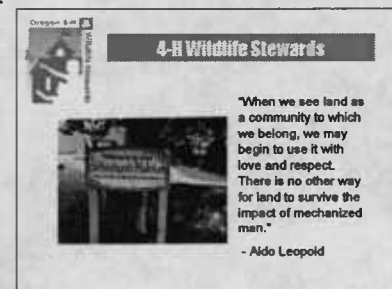
Slide 37

In the words of Walt Disney, "Our greatest natural resource is the minds of our children." The habitat project is the tool we use to develop strong children for a positive future.



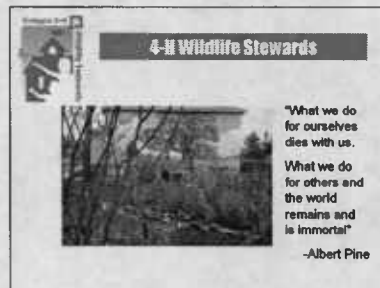
Slides 38–39

(View each.)



Slides 40–41

(View each.)



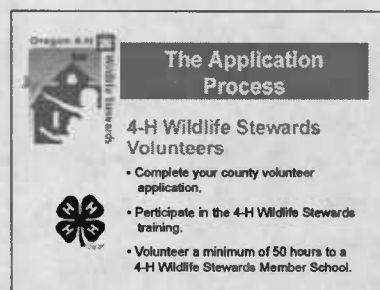
Slide 42

Most of you will already have completed many of the steps to become a 4-H Wildlife Stewards volunteer.

Show participants the county 4-H volunteer application, how to complete it, and where to submit it. Also review any specific local guidelines for completing the 4-H screening process.

You are required to complete the 4-H screening process, participate in and complete this training, and volunteer a minimum of 50 hours to a 4-H Wildlife Stewards Member school.

Show participants the volunteer log sheet and explain the process for submitting volunteer hours.

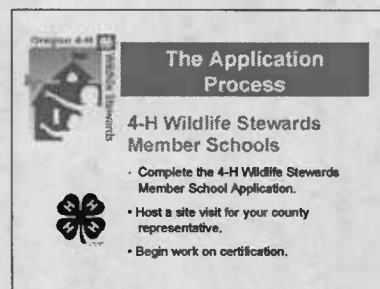


Slide 43

4-H Wildlife Stewards volunteers must give 50 hours of volunteer service to a 4-H Wildlife Stewards Member School. If the school you would like to support is not a member school, the process to become one is simple.

Complete the 4-H WLS Member School Application. This is a simple application that provides 4-H staff with the information they need to know about what resources and support already exist at the school. Also, it is critical that the school principal commit his or her support by signing the back of the application.

Schools come into this project at different levels. In some cases, a new school may have little or no available resources when they begin their project, and that is OK. Other schools are further along and have lined up financial resources, community partners, and in-kind support for the project. This application helps identify



your starting point. It is also a way for schools to see what will be involved in getting this project going.

You will need to schedule with your local 4-H staff or representative to do a site visit of your school.

Once your application is complete, your school can start! Our certification program, which will be explained later in this training, is a good roadmap to success.

Slide 44

There are certain requirements that all 4-H Wildlife Stewards Member Schools are expected to fulfill.

We expect all 4-H Wildlife Stewards Member schools to commit 3 to 5 years to this project. These projects are not short-term and require considerable resources and commitment from staff, parents, and community partners. Don't expect to complete this project in a year and be done. This is an ongoing project that requires time to ensure its success.

The school principal and/or school district staff must approve and be kept informed of this project. Find out from your school principal who has the authority to approve the project.

Hold up the 4-H school enrollment form.

Each year, you will be asked to complete an annual school enrollment form.

Include any other reporting requirements that your county, regional, or state 4-H office may require and how participants can submit the reports.

The annual site review is an optional report. The site review form is a good way to collect information on the status of the school projects and is useful information to have when writing grants, press releases, or award nominations. If you decide to use this report, be sure to show the form and explain the process for submitting it.

Slide 45

Congratulations! You are joining a growing cadre of committed volunteers and educators who are bringing science and nature together, one school at a time.


You are also joining a national award-winning program. The 4-H Wildlife Stewards program has won 17 national awards including: *(read slide aloud)*



The Application Process

4-H Wildlife Stewards Member Schools

- Commit 3 to 5 years to the project.
- Get school district and principal approval.
- Complete a 4-H School Enrollment form to enroll participating students as 4-H Junior Wildlife Stewards.



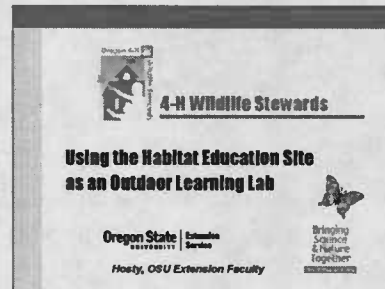
A National Award-Winning Program

- 2005 National Association of 4-H Agents Urban Program
- 2005 National Wildlife Society Group Achievement Award
- 2005 National 4-H Program of Distinction
- 2005 Natural Resources Conservation Services Youth Environmental Award
- 2002 USDA Cooperative Extension Flagship Program Award
- 1998 President's Service Award Citation

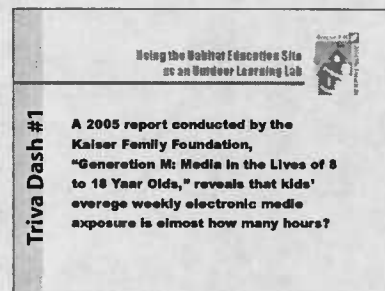
Using the Habitat Education Site as an Outdoor Learning Lab

Slide 1 _____
While creating a Habitat Education Site on school grounds may be an exciting and challenging opportunity, how you use this site for educating students is more important than what you create.

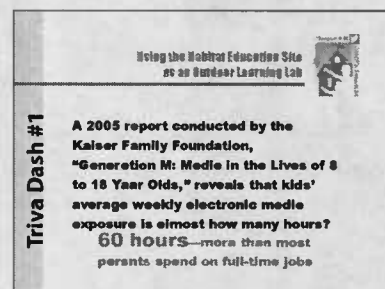
This session will encourage you to look at your Habitat Education Site as a learning laboratory for students across multiple disciplines.



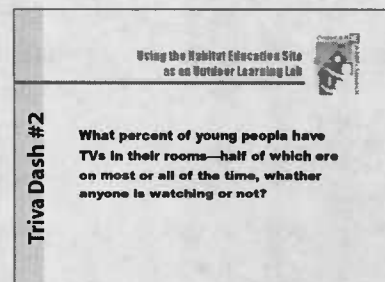
Slide 2 _____
(View)



Slide 3 _____
Kids today are disconnected from nature. Electronic media has become the playground for many kids. Most parents in urban, suburban, and rural areas say the same thing: children aren't playing outside anymore, not in the woods or the fields or the canyons.



Slide 4 _____
(View)



Slide 5

The growing gap between children and nature has profound implications for the future, including the mental, physical, and spiritual health of generations to come—and for the Earth itself.

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #2

What percent of young people have TVs in their rooms—half of which are on most or all of the time, whether anyone is watching or not?

68%

Slide 6

(View)

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #3

A 1991 study reported in the journal *Environment and Behavior* found that by 1990 the radius around the home where children were allowed to roam on their own had shrunk to a fraction of what it had been in 1970. What fraction?

Slide 7

Parents cite several reasons why their children spend less time in nature than they themselves did. Among them: diminishing access to natural areas, competition with electronic entertainment, increased homework, longer school hours, and other time pressures.

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #3

A 1991 study reported in the journal *Environment and Behavior* found that by 1990 the radius around the home where children were allowed to roam on their own had shrunk to a fraction of what it had been in 1970. What fraction?

1/9th

Slide 8

(View)

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #4

According to Duke University's 2005 *Child Well Being Index*, U.S. children are safer now than they have been at any time since 1975, and violent victimization of children has dropped by more than what percent?

Slide 9

Parents cite fear of traffic, nature itself, and—most of all—strangers.

But consider the facts. The number of abductions by strangers has been falling for years, and most abductors are family members. What has increased is round-the-clock news coverage of a few tragedies, coverage that is conditioning families to live in a state of fear. Society is sending an unintended message to children: nature is the past, electronics are the future, and the bogeyman lives in the woods. This script is delivered in schools, families, even organizations devoted to the outdoors.

Using the Habitat Education Site as an Outdoor Learning Lab

Trivia Dash #4

According to Duke University's 2006 Child Well Being Index, U.S. children are safer now than they have been at any time since 1975, and violent victimization of children has dropped by more than what percent?

38%

Slides 10–13

(View each)

Using the Habitat Education Site as an Outdoor Learning Lab

Trivia Dash #5

If young people retain 10% of what they read, how much do they retain of what they hear?

Using the Habitat Education Site as an Outdoor Learning Lab

Trivia Dash #5

If young people retain 10% of what they read, how much do they retain of what they hear?

30%

Using the Habitat Education Site as an Outdoor Learning Lab

Trivia Dash #6

How much do they retain of what they see and hear?

Using the Habitat Education Site as an Outdoor Learning Lab

Trivia Dash #6

How much do they retain of what they see and hear?

50%

Slide 14
(View)

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #7

How much do they retain of what they say as they do a thing?

Slide 15

Kids like action! Young people will be more active and interested learners if you use a variety of methods to teach skills and knowledge. Active involvement makes learning more meaningful and gives the group ownership and a feeling of belonging.

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #7

How much do they retain of what they say as they do a thing?

90%

Slides 16–18
(View each)

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #8

If students recall 72% of what they are shown after 3 hours, how much do they retain 3 days later of what they are shown?

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #8

If students recall 72% of what they are shown after 3 hours, how much do they retain 3 days later of what they are shown?

20%

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #9

If students recall 72% of what they are shown after 3 hours, how much do students retain 3 days later when they tell and show together?

Slide 19

An excellent method for reinforcing learning is to allow students to teach each other or to use cross-age mentoring.

Using the Habitat Education Site as an Outdoor Learning Lab

Triva Dash #9

If students recall 72% of what they are shown after 3 hours, how much do students retain 3 days later when they tell and show together?

65%

Slide 20

4-H Wildlife Stewards projects help bridge this gap between children and nature and bring learning alive for students.

Using the Habitat Education Site as an Outdoor Learning Lab

Place-based Learning

Restless, always on the move, few Americans—rural or urban—have developed the sense of connection to land or community upon which an ethic of care and responsibility can develop.

Place-based or rooted education offers a way to change this.

Slide 21

A wise teacher once observed, “If a child isn’t interested, you can’t teach him. If he is interested, you can’t stop him from learning.”

How often have we heard a student say, “Why should I learn this? What does this have to do with the real world?” It is important to find a way to engage and excite students by presenting information in the context of solving an authentic problem.

One role of the 4-H Wildlife Steward is to help facilitate a student’s ability to answer these questions. Have plenty of resources, websites, and contact information for resident experts that students can use when they begin to explore the answers.

Using the Habitat Education Site as an Outdoor Learning Lab

Place-based Learning

What is Place-based Learning?

- It is a collaborative teaching and learning process that uses the local environment and community as its context.
- Students are engaged in real work that meets a real need.

Slide 22

It is important that 4-H Wildlife Stewards look for opportunities for students to learn how to think. This can only be achieved when youth are given the chance to make decisions on their own.

For example, compare a small butterfly garden that was selected, researched, developed, and planted by a group of students to a large and more professionally landscaped Habitat project planned and planted by adults with assistance from students. With the butterfly garden, the students learned many things through experience, including the needs and requirements of butterfly habitat, how to work together as a team, decision making, responsibility to get the job done, and self-esteem from knowing "I did this!" With the large and more professional habitat, the students' learning was limited. They only learned what to think, not how to think.

Using the Habitat Education Site as an Outdoor Learning Lab

Place-based Learning

What is Place-based Learning?

- Students are involved in decision making and action that lead to community improvement.
- It is standards-based.

Slide 23

Remember, learning takes place through the student's experiences. 4-H Wildlife Stewards help provide opportunities for "hands-on learning." By working on Habitat Education Site projects, children learn skills in science, math, social studies, and other school subjects.

Using the Habitat Education Site as an Outdoor Learning Lab

Place-based Learning

What is Place-based Learning?

- It draws on multiple disciplines and involves students in problem solving.
- Local culture, history, and geography take on important meaning.

Slide 24

Leaders also play an important role in helping children feel good about themselves. Habitat Education Site projects are a wonderful opportunity to help youth develop their personalities as well as their skills.

Students grow in confidence and self-esteem as they learn. They also develop sound decision-making and communication skills, responsibility, and the ability to cooperate with others.

Students who struggle in a traditional classroom setting may find that in this type of learning environment they thrive. When they thrive, they gain new self-confidence, pride, and enthusiasm for learning.

Using the Habitat Education Site as an Outdoor Learning Lab

Place-based Learning

What is Place-based Learning?

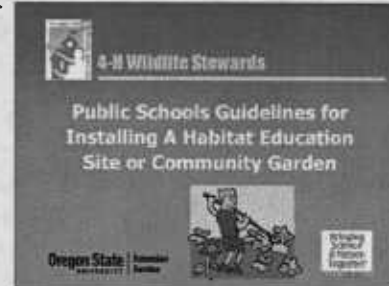
- It allows students to work autonomously to construct their own learning.
- Partnerships with students and community are essential.

Public Schools Guidelines for Installing A Habitat Education Site or Community Garden

Slide 1

These guidelines are based on an urban school district in Portland, Oregon, but many of them apply to most school districts. Note that not all school districts have already established guidelines. Meet with your school district staff and submit your own recommended guidelines based on these suggestions.

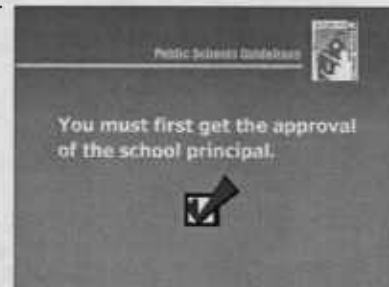
Private schools often have more complex rules, since their land is privately owned. They may have to abide by additional government guidelines.



Slide 2

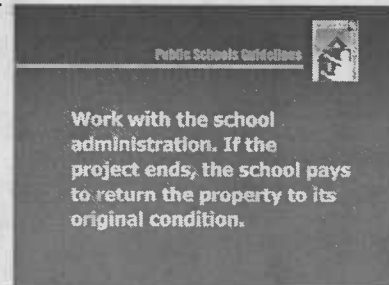
This is a requirement of 4-H as well as many school districts. It is also important from a communication standpoint.

Some school districts may also require approval from the school district grounds staff.



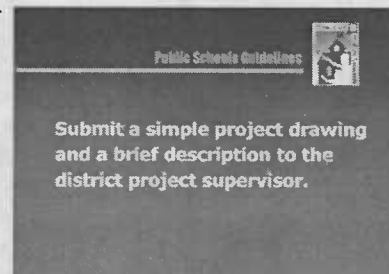
Slide 3

Many school districts will not approve the project without a commitment from the school principal to return the area to its original state at the school's expense if the project is not completed, not maintained properly, or does not meet one of the requirements listed in the following slides. Unfortunately, this has happened at some schools. If the school district perceives that the Habitat is not being maintained, the Habitat may be removed by grounds staff.



Slide 4

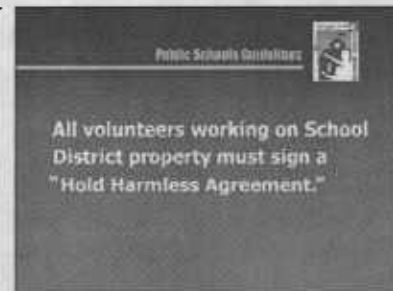
This is also a requirement of the 4-H Wildlife Stewards Project Certification. Encourage the students to develop the map, so they take ownership. Explain to them that the map is important for gaining school district approval.



Slide 5

Many schools require that volunteers sign a “hold harmless agreement.” Check with your local school to find out what other requirements there may be for volunteers.

Check with your local or state 4-H office to find out what liability coverage is provided to 4-H volunteers.



Slide 6

The project must be accessible to people with disabilities as per federal and local guidelines.

Let the students help brainstorm how the site can be made accessible. Seek the advice of disabled students and their parents for ways to make your Habitat more accessible.



Slide 7

Post the 4-H Wildlife Stewards Habitat sign in a prominent place. Habitat signage educates the public and lets the community know that the project is being developed and maintained by students as a learning laboratory.

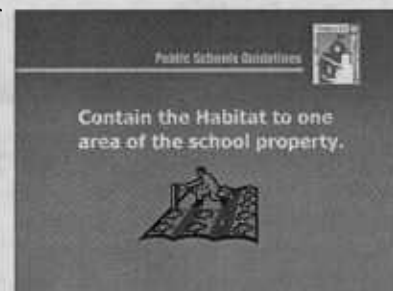
Contact the 4-H Wildlife Stewards in Oregon at www.wildlifestewards.4h.oregonstate.edu for information on ordering your signs.



Slide 8

This makes it easier for the school maintenance crew to take care of the school grounds around the site.

Once you’ve established a clearly bounded, well-maintained site, explore with the grounds staff and school district other areas on the school grounds that could be developed.



Slide 9

Projects must not create a safety or security hazard. A heavily planted area may provide a hiding place for unwanted visitors; or, a compost pile that is not maintained properly may invite unwanted wildlife (such as rats).

Consider carefully the use of pesticides or chemicals that may affect children and wildlife. Small rocks used in landscaping may be inviting to kids who like to throw.

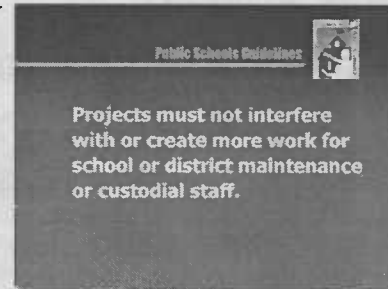
Refer to "Vandalism and Your Habitat Site" in the *Oregon 4-H Wildlife Stewards Volunteer Handbook* for suggestions on how to minimize security hazards.



Slide 10

Keep pathways clear for district staff to get their lawnmowers around the Habitat site. Be sure to put away all equipment as soon as you are finished using it.

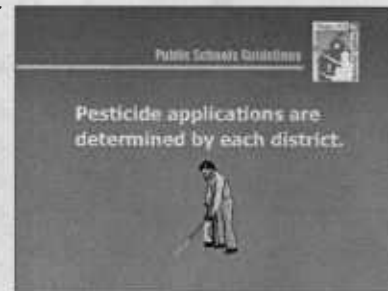
Students get muddy from working outside. Provide a place where they can clean up before coming into the school. Also, be prepared to have students, volunteers, and teachers take care of the Habitat site. This is NOT the responsibility of district or school maintenance staff.



Slide 11

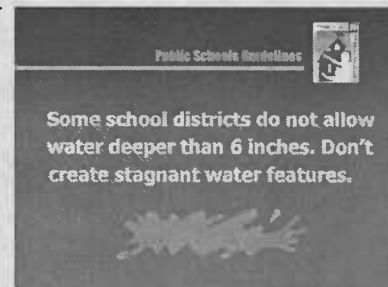
Each school district determines whether to apply pesticides to school grounds. Some districts prohibit pesticides, and some allow limited application. (If limited pesticide applications are allowed, in almost all cases only trained professionals may make them.)

If your school chooses not to use pesticides in the Habitat area, and the school district allows pesticide use on school grounds, then it is important that you work with the school district to make sure no pesticides are applied to your Habitat site.



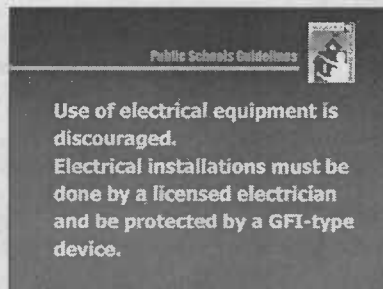
Slide 12

Water must be less than 6 inches deep. (This is a liability issue.) This guideline may vary in different areas. It is important that you know your school district's requirements for installing water features.



Slide 13

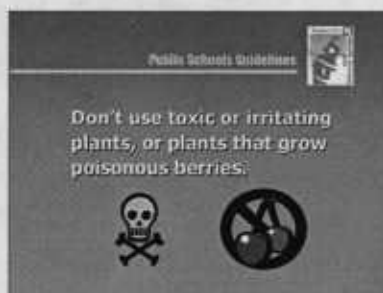
Call before you dig! There may be power lines below.



Slide 14

Don't put in plants that contain irritants, produce poisonous berries, or are otherwise toxic. Your local Extension office and/or Master Gardener program should have information on which plants these are.

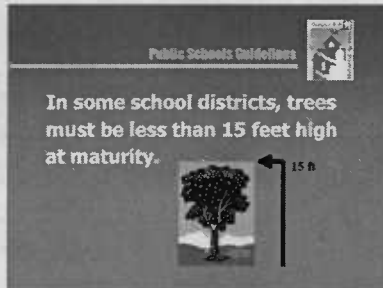
You might be surprised what plants are considered poisonous.



Slide 15

Don't plant trees that grow higher than 15 feet at maturity. They must not create more work for the school or district staff.

Large trees cause damage and danger if they fall over in a storm, create tree litter over a wide expanse of ground, or litter roofs and clog gutters.



Keys to Success

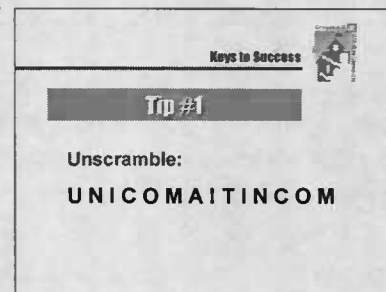
Slide 2

(View)



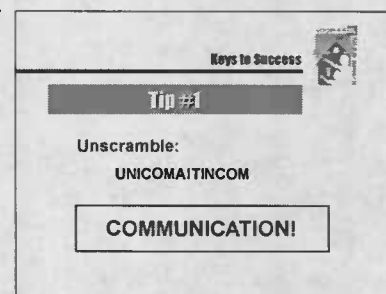
Slide 3

Don't be afraid to ask questions or holler for help! Open a dialogue with the school principal and always keep that person current on Habitat happenings. Set up a telephone tree with your Habitat Team, parents, and others interested in working on the project. School 4-H Wildlife Stewards newsletters, bulletin boards, and websites are other good tools for keeping communication lines open. Don't forget your Oregon State University 4-H Wildlife Stewards staff. They can answer many of your questions and connect you with other volunteers and supportive resources.



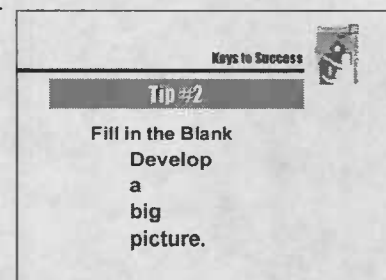
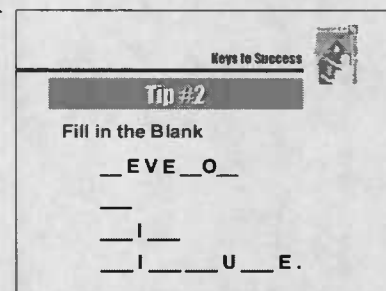
Slide 4

(View)



Slide 5

This can be a hard concept to grasp. Think of it as a wish list for the Habitat. What would you want to see on the school grounds 10 years from now if you had unlimited money and resources? How many volunteers would be working with you? What would your Habitat Education Site look like? How many students would be involved? What types of studies would they be conducting? Remember to think big but start small!





Slide 6


(View)

Keys to Success

Tip #3

Picture Detective

Get  s and  +

 + pal on board early.

Slide 7



The 4-H Wildlife Stewards program requires the school principal's participation from the very beginning. The principal's leadership is instrumental to ensuring that the project is a success and can be sustained.


While having a school Habitat may be esthetically pleasing, it won't be used as an education site unless the Habitat Team has the teachers on board. Honor and accept each teacher's personal availability and commitment to the project. Capturing the enthusiastic teachers is a key to developing and utilizing the site.

Keys to Success

Tip #3

Picture Detective

Get  s and  +

 + pal on board early.

Get teachers and principal on board early.



Slide 8

(View)

Keys to Success

Tip #4

Picture Detective

 and keep it (what you find on this ball)  .

(exchange the d for an s)



Slide 9

Volunteers always tell us that this is the most important key to success. Spend your first year establishing the Habitat Team and planning for success. Tackle only one small project that first year. "Small" means something the school can finish successfully in a very short time. That might mean buying and hanging one bird nesting box or installing a 3- by 3-foot butterfly garden with 12 plants. It's easier to build a program with many small successes than to fail with one half-finished big project.

Keys to Success

Tip #4

Picture Detective


 and keep it (what you find on this ball)  .

(exchange the d for an s)

Start small and keep it simple.

Slide 10

(View)

Keys to Success 

Tip #5

Unscramble:


**KRAMOWET and
LITAGEEDON**

Slide 11

Habitat Education Sites cannot be created and sustained by one person alone. Sustainability of the project depends on the development of a core team, called the Habitat Team. It can be comprised of educators, parents, students, and community neighbors.

Even though you will be working as a team, someone needs to be able to “delegate” or appoint various jobs to qualified people including those outside the Habitat Team.

With your team, find parents, community members, or teachers who may be able to assist with the project and then invite them to be a part of the team. Be sure to have a specific job in mind for these potential partners, and let them know the time commitment.

Keys to Success 

Tip #5


Unscramble:

**KRAMOWET and
LITAGEEDON**

**TEAMWORK and
DELEGATION**

Slide 12

(View)

Keys to Success 

Tip #6

Match the number with the letter in the alphabet.


___ III

8 1 22 5 6 21 14

Slide 13

Volunteer work can be just that...work. But, it doesn't have to be. Let it be a rewarding and enriching experience. If you are having fun, the kids will have fun.

The students will be excited to be in the Habitat whether they are planting, painting, or studying science. Capture their enthusiasm and help broaden the joy of out-of-doors learning experiences by sharing in the fun.

Keys to Success 

Tip #6

Match the number with the letter in the alphabet.

H a v e f u n !!!

8 1 22 5 6 21 14

Slide 14

(View)

Keys to Success

Tip #7

Picture Detective

the kids through
 Off activities.

Slide 15

Part of the joy of being in the outdoors is using all of your senses. There are flowers to smell, tree bark to touch, bird songs to listen to, and spider webs to observe. As a 4-H Wildlife Steward, you are the perfect person to engage the students and assist teachers in hands-on activities that will enrich the student's outdoor and classroom experience.

Keys to Success

Tip #7

Picture Detective

the kids through
 Off activities.

Engage the kids through hands-on activities.

Slide 16

(View)

Keys to Success

Tip #8

Picture Detective

the _____
 (Chinese, Spanish, Italian, French)

of + marks.

Slide 17

Teachers are constantly faced with diminishing resources and time in the classroom. They may feel overwhelmed when a parent or volunteer wants to add one more project. Find out what the students are already studying in the classroom and how you can support those efforts. Let the teachers know the curriculum provided by the 4-H Wildlife Stewards program is tied to the Oregon education benchmarks. We all have the same goal to provide an enriching and engaging education to our youth.

Keys to Success

Tip #8


Picture Detective

the _____
 (Chinese, Spanish, Italian, French)

of + marks.

Speak the language of benchmarks.

Slide 18
(View)

Keys to Success 

Tip #9

Match the number with the letter:

Keep it _ _ _


1 7 5

_ _ P _ _ _ _ _ T _

1 16 18 15 16 18 9 1 5

Slide 19

Before heading to the Habitat site, check with a teacher to confirm that your curriculum is age-appropriate. If you try to use kindergarten-level projects with fifth graders, they will be bored. Likewise, using fifth-grade curriculum with first graders will most likely result in frustration and annoying behavior. For best results, teach to the student's age and grade level.

Keys to Success 

Tip #9

Match the number with the letter:

Keep it _ _ _


1 7 8

_ _ P _ _ _ _ _ T _

1 18 18 15 16 18 9 1 5

Keep it age appropriate.

Slide 20
(View)

Keys to Success 


Tip #10

Unscramble:

Be BLEEFLIX
and TECARIVE.

Slide 21

If you and others working on the project are truly flexible, you will never be dissatisfied or disenchanted with the program or the project. You may have a vision of what the Habitat will look like, but with students and others working on the project it will most likely yield different results. Encourage the students and others to be creative in their planning and execution process. Flexibility and creativity go hand in hand in making this a student-driven project. Embrace everyone's individuality and creative process.

Keys to Success 

Tip #10

Unscramble:

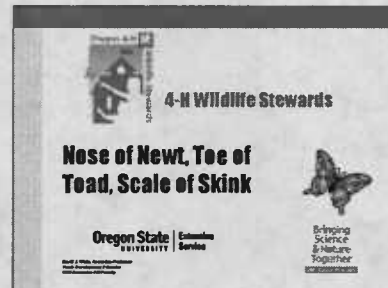
Be BLEEFLIX
and TECARIVE.

Be flexible and creative.

Nose of Newt, Toe of Toad, Scale of Skink

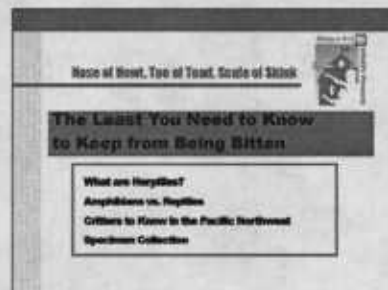
Slide 1

This presentation will help you recognize some of the herptiles commonly found throughout Oregon.



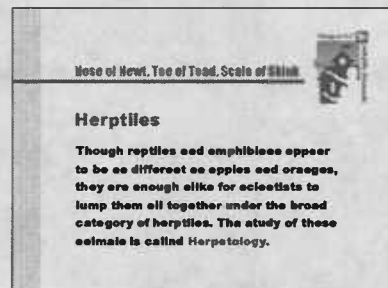
Slide 2

Although many of the species you will see are rather benign, some have developed means to protect themselves from predation. Some of these mechanisms can be harmful or fatal to humans.



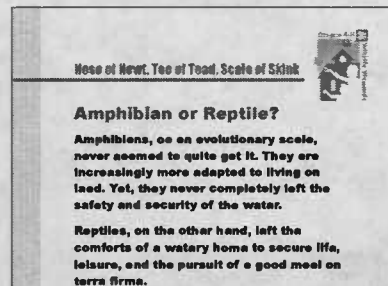
Slide 3

Reptiles and amphibians, whether they have legs, lungs, or “warts,” are close enough alike to be studied under the one category of herptiles.



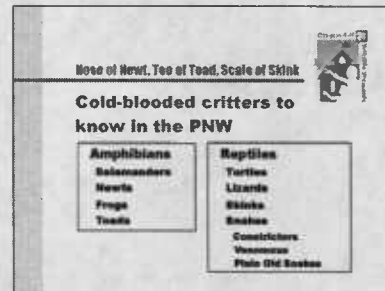
Slide 4

“To be or not to be, that is the question.” Over time, certain species developed scales to endure life away from water. The others chose to remain close to or in water.



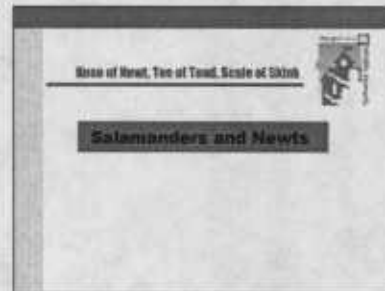
Slide 5

If you look hard and carefully enough, you'll find at least one of these herptiles in your area.



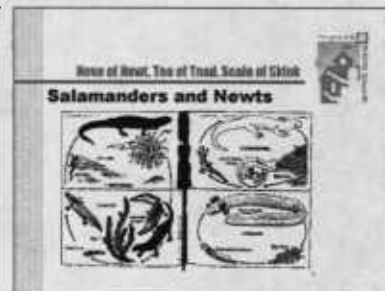
Slide 6

Salamanders are distinguished from newts mainly by the texture of their skin. Salamanders are smooth. Newts are rough and leathery.



Slide 7

Salamander life cycles vary. Some require an aquatic period prior to a terrestrial phase. Others are strictly terrestrial or aquatic.



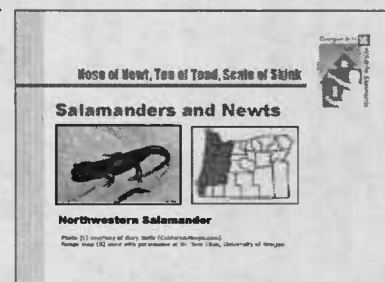
Slide 8

- 2 to 7 inches
- Often marbled-colored
- Frequents damp forests
- Found under logs, bark, and other objects near water
- Its bite can lacerate skin.
- Found from the valley to the coast
- A large and formidable-looking salamander
- Emits a low-pitched rattling sound when disturbed



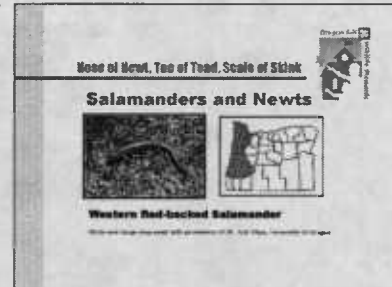
Slide 9

- 3 to 4½ inches
- Brown, gray, or black
- Parotoid glands (what people mistakenly call warts) make for a large head.
- Glandular areas are pitted poison glands that may cause skin irritation.
- There are distinct costal grooves along sides of body.



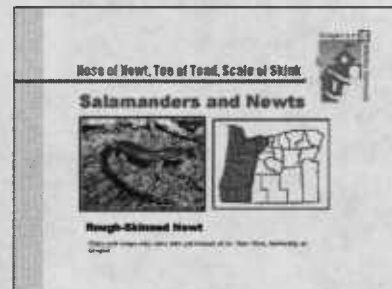
Slide 10

- 16 costal grooves (grooves look like ribs)
- Tan, reddish brown, orange-yellow, with even edges extending to tail
- 1½ to 2½ inches
- Found in the mid- to upper Willamette Valley and the mid- to upper Oregon coast
- Not found in the southern interior Oregon counties or the extreme southern Oregon coast



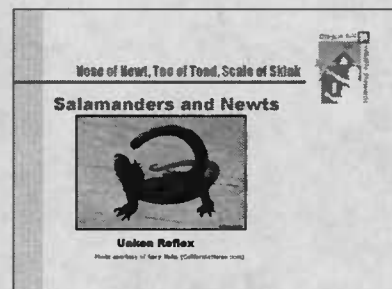
Slide 11

- 2¼ to 3½ inches
- Black, dark brown back
- Yellow to reddish-orange below
- Most poisonous newt
- Found in the Rogue and Willamette Valleys and the entire Oregon coast



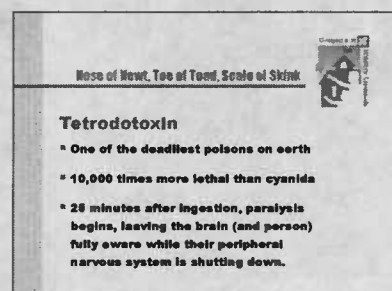
Slide 12

- Rough-skinned newt
- Notice the rough, leathery texture of the skin.
- This reflex is an extreme defensive pose.



Slide 13

(View)

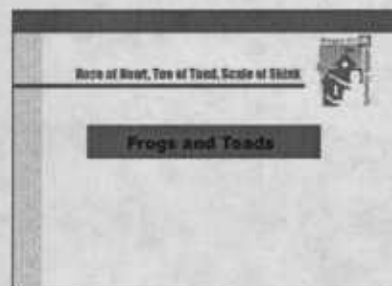


Slide 14

Many of these amphibious critters can be picked up.

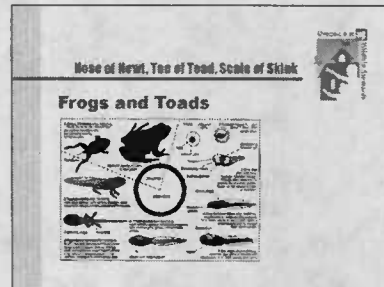
Always wash your hands before and after touching. You don't want to give any disease to the animals, and you don't want them to make you ill.

Toads are chunky, short-legged, and warty. Frogs are slim-waisted, long-legged, smooth-skinned jumpers.



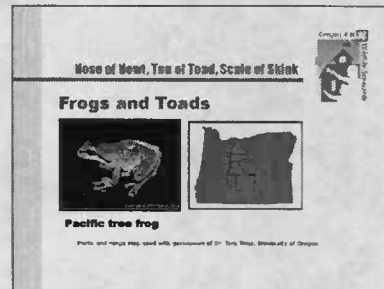
Slide 15

Both the frog and the toad need water to reproduce.



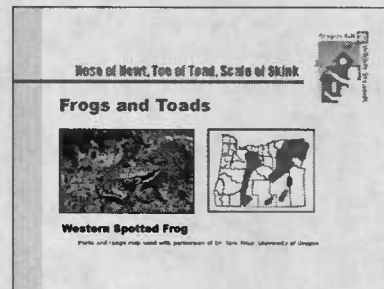
Slide 16

- $\frac{3}{4}$ to 2 inches
- Have a stripe through the eyes
- Usually green or shades of brown
- Found throughout Oregon
- This is the one you're most likely to hear at night.



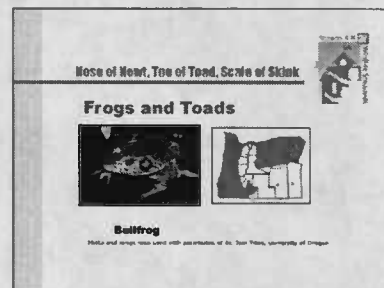
Slide 17

- $1\frac{3}{4}$ to 4 inches
- Light jaw stripe reaches shoulder
- Highly aquatic
- It is losing ground to leopard frogs and bullfrogs.



Slide 18

- 7 to 8 inches
- Eats spotted frogs, western pond turtles, and water fowl
- Large, pale green
- Fold above the eye and behind the tympanum
- This is an introduced species with a voracious appetite. It eats whatever it can get its mouth around.
- It can eat birds as large as robins.



Slide 19

These toads may secrete a mild white poison from their large parotoid gland and other warts.

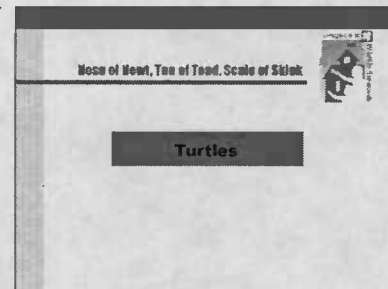
They are eaten by snakes, coyotes, raccoons, ravens, and crows.

Females deposit up to 12,000 eggs in two long strings that can reach 30 feet in length.



Slide 20

Water turtles form the largest family of turtle. There are nearly 80 species.



Slide 21

- 3½ to 7½ inches
- All turtles have 13 scales which form the carapace.
- Flecks and lines radiate from the center of the scales.
- Limited to Oregon's southwest interior, south coast, and throughout the Willamette Valley

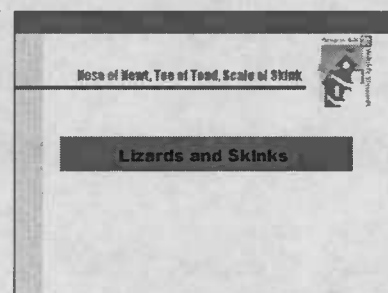


Slide 22

These well-adapted reptiles are extremely quick on their feet.

Reptiles are often called cold-blooded. Their body temperature largely depends on sources of heat outside their bodies. Snakes and lizards are killed on roads while trying to absorb heat from the pavement.

Only 12 species of lizard inhabit Oregon.



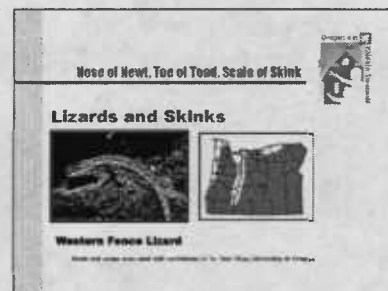
Slide 23

This lizard is sometimes called the **blue-belly** (because of its distinct color) or **swift** (because it is very "swift" on its feet).

Lightening and darkening of the skin regulates the fence lizard's body temperature.

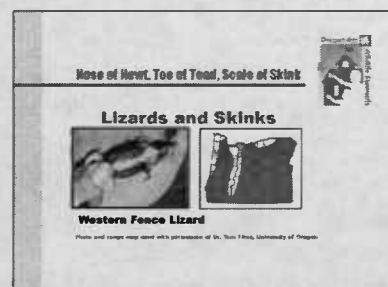
Northwestern fence lizards are found from the western Cascades to the coast.

Great Basin fence lizards can be found in central Oregon to eastern Oregon.



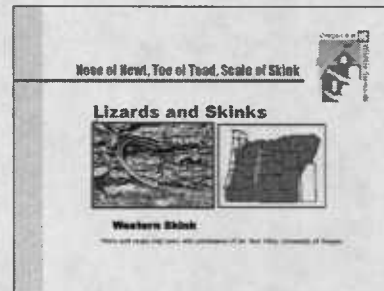
Slide 24

- Males are blue on throat and sides of belly
- 2½ to 3½ inches



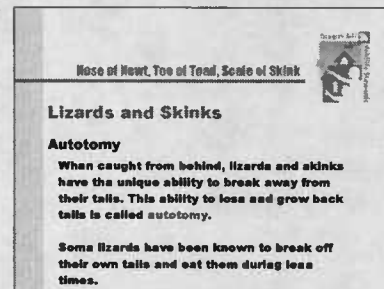
Slide 25

- Skinks are alert, agile, slim-bodied lizards with shiny scales.
- Juvenile skinks have distinct blue tails
- 2½ to 3¼ inches
- Our Western skink is known as the Skilton skink.



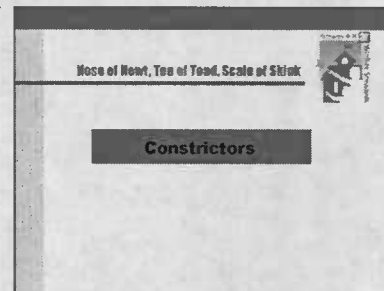
Slide 26

Self-shedding of the tail is unique to the lizard family. The tail could be called the original “fast food.”



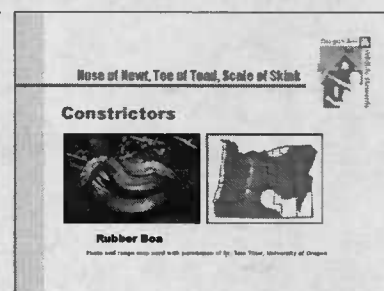
Slide 27

Constrictors don’t crush their prey. They squeeze or constrict their bodies as the prey animal exhales. This prevents the prey animal from breathing and causes it to suffocate.



Slide 28

- Plain olive to brown
- 14 to 33 inches
- It looks and feels like rubber.
- Oregon has two subspecies: the Pacific and the Rocky Mountain



Slide 29

Gopher snake or bull snake, call it what you will, this snake unfortunately gets itself confused with our western rattlesnake.

- It is able to flatten its head to mimic the rattlesnake.
- It coils itself like a rattlesnake.
- It vibrates its tail in dry brush to mimic a rattlesnake.

Is there any wonder why this snake is so often killed?

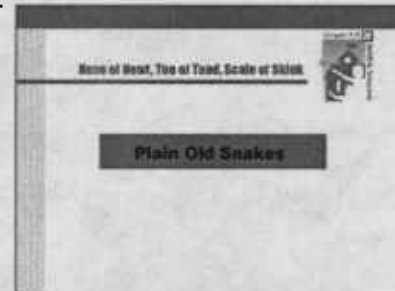
- Notice the round pupil and dark vertical line that passes through the eye.
- Rattlesnakes have vertical pupils, much like cat’s eyes, and no vertical line.

However, if you have to get that close to determine the make and model of the snake, you are probably too close.



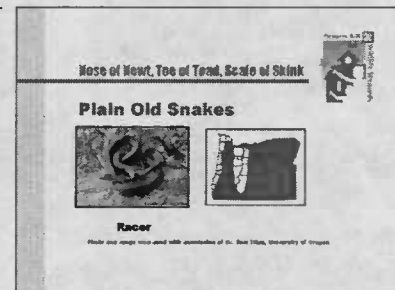
Slide 30

These poor snakes sometimes take a beating when eating. They have no venom and no ability to constrict. They simply bite, hang on, and hope to swallow the prey before getting too beat up.



Slide 31

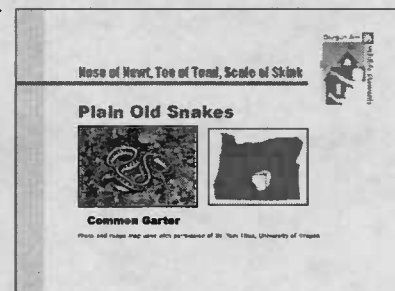
- 20 to 73 inches
- Oregon's version is the western yellow-bellied
- Absent in the Deschutes River Basin
- Like open meadows, prairies, sagebrush flats, chaparral, piñon-juniper, and forested glades
- If grabbed, will bite repeatedly while thrashing about
- Eat small mammals, reptiles, frogs, and insects



Slide 32

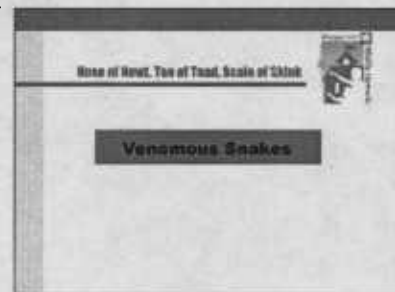
Three species live in Oregon: terrestrial, aquatic, and northwestern.

- 18 to 52 inches
- Pale yellow or orange mid-dorsal stripe
- When caught, they defecate and expel musk from anal glands.



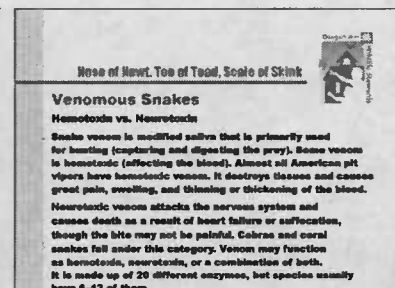
Slide 33

(View)



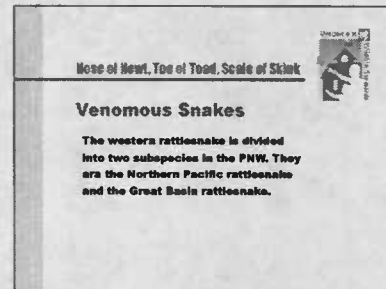
Slide 34

Venom is the toxin/poison secreted by some snakes. Venomous means "full of venom" or poisonous.



Slide 35

(View)



Slide 36

The western rattlesnake is the only one found in Oregon. There are two subspecies: Northern Pacific and Great Basin. Great Basin rattlesnakes are found in southeast Oregon. Northern Pacific rattlesnakes avoid the high Cascades, Oregon coastal regions, and the western Columbia Basin.

- Can be found from the Rogue Valley into the Willamette Valley
- Range in size from 15 to 65 inches
- Striking range is half their body length.

The forked tongue samples minute particles. The particles are placed on a pad in the bed of the mouth. The bed then presses up against the Jacobsen Organ for analysis.

Pit vipers, like rattlesnakes, have fangs that reflect backward. They have jaws that are very flexible, with ligaments that allow them to open wide.



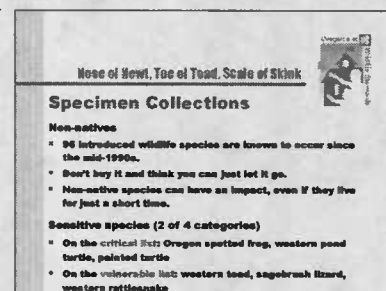
Slide 37

Several species may not be touched.

Some are available for study.

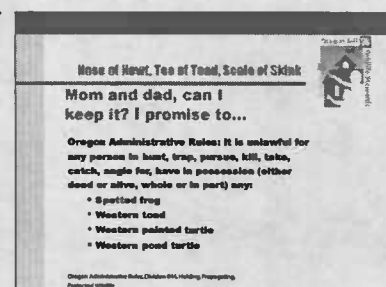
Oregon has rules about what can and cannot be collected.

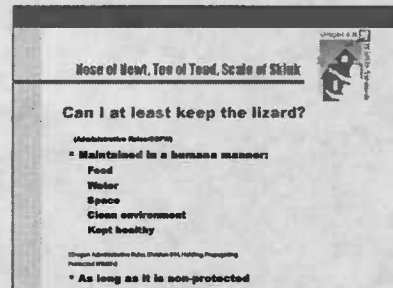
Some can be kept, but only under certain conditions.



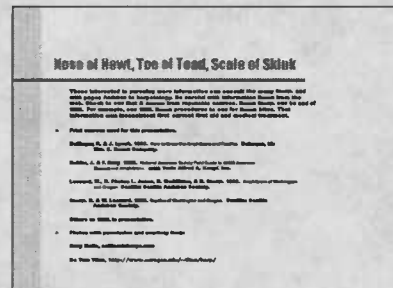
Slide 38

(View)





Slide 40
Additional resources and precautions.

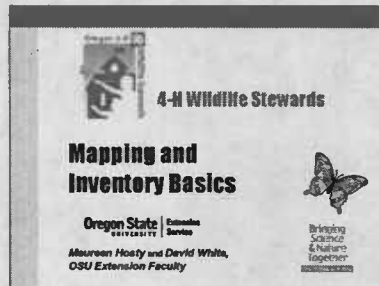


Mapping and Inventory Basics

Slide 1

Our goals for this session are:

1. Learn some tools needed to build a schoolyard wildlife habitat.
2. Identify site plan considerations. Learn what students should be looking for at the site.
3. Learn where to go for resources on taking inventory of the wildlife Habitat Site.
4. Learn ways to map the wildlife Habitat Site.



Slides 2 and 3

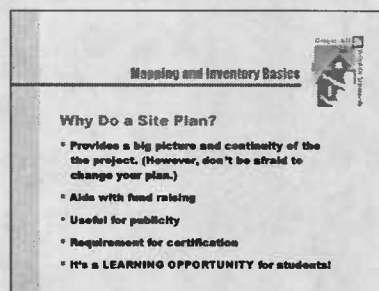
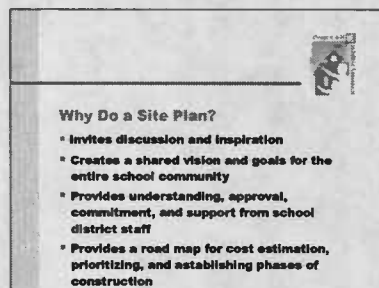
The first step in creating a wildlife habitat is mapping and measuring the site and making a site plan.

Accuracy is important. Choose units: standard or metric, just be consistent!

The plan can be used to involve the community as well as students.

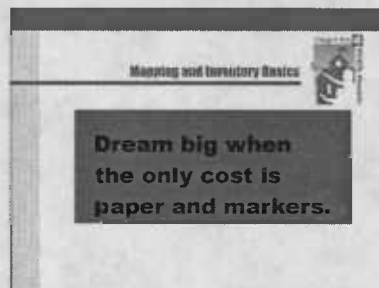
It provides a roadmap for cost estimation, prioritizing, and establishing phases of the garden's construction.

It's a dynamic tool—allow for change.



Slide 4

(Read slide aloud)



Slide 5

Taking inventory of your site is the first step in making a site plan.



Slide 6

Geology

Soils optional activity (if time allows):

Soil maps can be found at the Soil and Water Conservation District. Are there outcroppings? Rocky soil? Stream present? Steep slopes? Flat area?

Look at copy of soil survey.

- Get topo maps from www.topozone.com, or from the USGS (see Topography, below).
- Ephemeral streams are seasonal, not present all the time.
- Perennial streams are present all the time.
- Check accuracy during site reconstruction.

Hydrology

Types of water sources:

- Seasonal (ephemeral springs)
- Year-round (perennial springs)

Optional activity:

- Find the dips in a topographic map that indicate drainage. Draw lines on the map (use highlighter). Draw an arrow to mark direction of flow.
- Identify trees and slopes that provide shade.

Climate

Look at weather trends through the year. Find information:

- www.weather.com
- <http://www.nws.noaa.gov/>
- www.accuweather.com

Topography

Topographic maps are created by the U.S. Geological Survey (USGS). They are available for sale or to download from the internet.

Wildlife

Inventory these indicators of wildlife

Shelter

brush pile
dens in ground
log pile
rock pile
nests
other

Feeders

type of feeder
type of food

Water sources

seasonal (ephemeral springs)
year-round (perennial springs)

Human needs (conflicts with people)

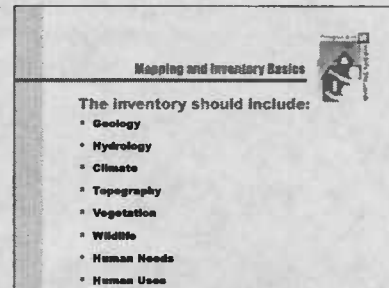
bee allergies; fear of snakes, bats, etc; others

Human uses (consider how humans already use the site)

Existing structures: driveways, sidewalks, parking lot, fence, playground/sports fields

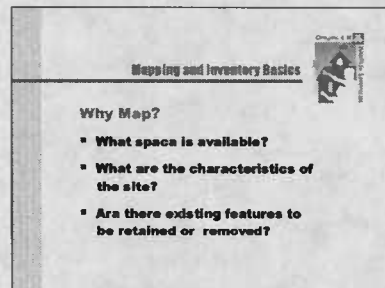
Is electricity available?

Constraints: overhead wires, underground utilities, district regulations, zoning issues, building codes, water quality and wetland regulations, ADA requirements, adjacent land use, neighbor courtesy, water conservation, time/money, vandalism/safety concerns



Slide 7

Once the site has been inventoried, the next step is to map it.



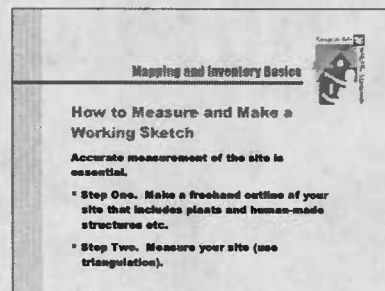
Slides 8 and 9

Script for slides 8 and 9:

There are five steps to measuring a site and making a working sketch. You'll take measurements and make a working sketch of a selected "site" here at the training. In the interest of time, we will complete only four of the five steps.

Upon return to Slide 8:

Accurate measurement of the site is essential.

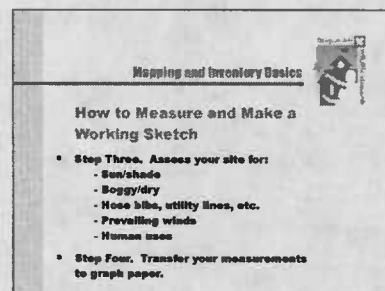


Slide 9

Upon return to slide 9, follow this script:

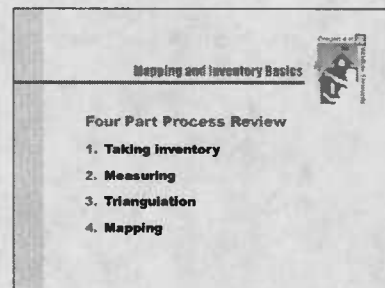
(Step 3)—Indicate on your drawing the sunny and shady spots, boggy and dry areas, hose bibs, prevailing winds, and human uses.

(Step 4)—Then, transfer your measurements to graph paper. You'll need to include at least one feature of your site that you have triangulated.



Slide 10

(View)



Slide 11

Triangulation is a method used to record the location of an unknown point from two fixed points.

Slide 12

Measure the distance from Point 1 to Point A. Using a compass, note which direction Point 1 lies from Point A. Repeat with Point 1 and Point B. Next, measure from Point 2 to Point A and then from Point 2 to Point B.

Decide on scale. For a small site, a scale of 1 ft = 1 inch is commonly used. Larger sites will need a different scale, such as 10 feet = one inch. You'll want to use a scale that works with the graph paper you use.

Slides 13-15

When drawing the map, use a drafting compass to find the intersection of the two lines. Since we only used two points as reference points, there will be two intersections of the lines. Using the direction noted in the field, you can decide which intersection is correct. You can also use more than two reference points, to increase your accuracy.

Mapping and Inventory Basics

What is Triangulation?

- It is the method used to record an unknown point from two fixed points.
- This information then is used to create a more detailed site plan or "map."

Mapping and Inventory Basics

Identifying and measuring the site for a rough draft

A1 = 10 ft.
B1 = 12 ft.
A2 = 24 ft.
B2 = 20 ft.

Mapping and Inventory Basics

Triangulation in Easy Steps

- Create a rough outline of the 4-H Wildlife Stewardship Habitat site.
- Label fixed points (A-Z).
- Label unknown points (1-100).
- Measure the distance from fixed points to unknown points to the closest inch.
- Convert measurements in feet to inches.
- Transfer data to a detailed version of the 4-H Wildlife Stewardship Habitat site.

Mapping and Inventory Basics

A1 = 10 ft	10 x 0.25" = 2.5"
B1 = 12 ft	12 x 0.25" = 3"
A2 = 24 ft	24 x 0.25" = 6"
B2 = 20 ft	20 x 0.25" = 5"

Scale: 1/4 inch (0.25) = 1 foot

Mapping and Inventory Basics

Converting rough site measurement for a detailed site plan

A1 = 2.5" or 2 1/2"
B1 = 3"
A2 = 6"
B2 = 5"

Slides 16–20
(View)

Mapping and Inventory Basics

Developing Your Site Plan

How are you going to use the site?
Plan for future uses

- Bubble drawing use areas
- Plan for science/study stations
- Consider pathways through the garden
- Include access for maintenance

Mapping and Inventory Basics

Developing Your Site Plan

- Decide what animals and insects you want to attract, and then find out their habitat needs.
- Tailor a list of plants that meet the habitat needs and are suitable to the site.
- Design plantings in layers to mimic Mother Nature.

Mapping and Inventory Basics

Developing Your Site Plan

- Remember to include small trees and large shrubs in a courtyard garden to invite birds. Avoid large trees in small spaces.
- Practice diversity—more wildlife.
- Avoid blank spaces when possible.
- Expand on habitat needs—native plant garden, pizza garden, sensory garden

Mapping and Inventory Basics

Developing Your Site Plan

- Plan for additional food, watering, and shelter sources.
- Borrow ideas from other sources.
- Don't rush it, give it time, try new ideas.
- Start small and plan for success, and then build on that success.
- Remember to keep a photographic and written journal of the process.

Mapping and Inventory Basics

Developing Your Site Plan

- **REMEMBER:** This is the students' project. Involve the kids in the design.

Slides 21–25

(View)

Mapping and Inventory Basics

Preparing For Planting Day

- Work for donations once a plan is completed.
- Create a plant list and arrange for delivery the day or day before planting.
- Soil preparation: mulch, till, weed removal, drainage correction

Mapping and Inventory Basics

Preparing For Planting Day

- Path installation and other hardscape like sprinklers: do big stuff now or plan for access later.
- Arrange for plenty of volunteers to be on hand. Train them in advance so they know what to expect and what is expected of them.
- Review tool safety, and teach correct planting methods.

Mapping and Inventory Basics

Planting Day

- Have volunteers arrive early, and assign them teams of kids and an area.
- Designate someone to be the official photographer.
- Plan for breaks, snacks, refreshments.
- Organize a celebration finale.
- Have FUN!!!

Mapping and Inventory Basics

After Planting Day

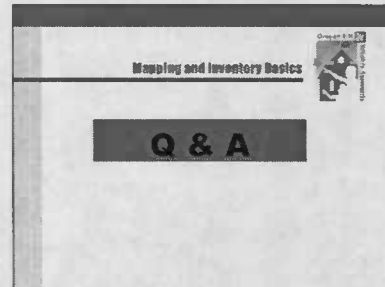
- Install signage so people know what you have, why, and who did it.
- Do maintenance review: Who do you call when there is a problem? What are the do's and don'ts?
- Develop rules for the garden so it's used well and wildlife is respected.
- Develop a "field guide" to the garden and activities to get people out there using it.
- Keep thinking creatively. Remember that the goal is children learning.

Mapping and Inventory Basics

Cardinal Rule number 1
It is better to ask and dig later than to dig now and explain later.

Cardinal Rule number 2
See Cardinal Rule number 1.

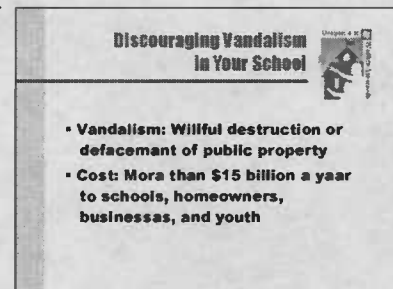
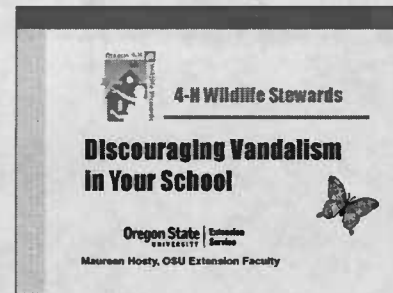
Slide 26
(View)



Discouraging Vandalism in Your School

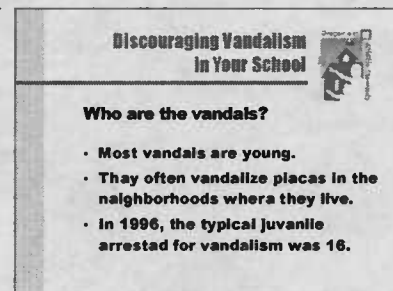
Slide 2

Discouraging vandalism is important for any school that is considering creating a wildlife habitat on school grounds.



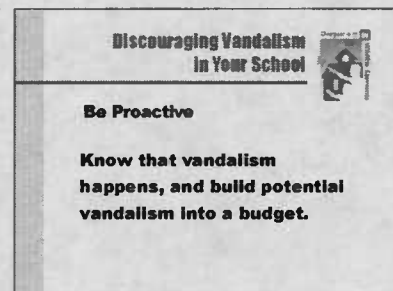
Slide 3

Often, school vandalism is committed by a current or former student at the school.



Slide 4

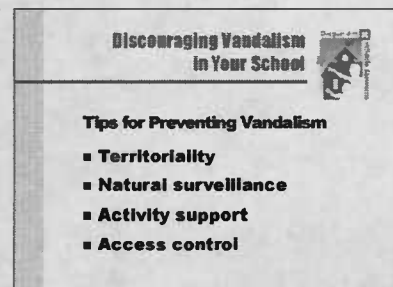
It is rare that a school does NOT experience vandalism when there is a wildlife Habitat Site on school grounds. As a 4-H Wildlife Stewards volunteer, you must have a plan in place to respond to vandalism when it happens.



Slide 5

There are four ways to discourage vandalism in your school Habitat Education Site. They are:

1. Territoriality
2. Natural surveillance
3. Activity support
4. Access control



Slide 6

The first of these is territoriality.

**Discouraging Vandalism
in Your School**

Territoriality

People protect territory they feel
is their own and have a certain
respect for the territory of others.

Slide 7

Here are a few methods you can use to establish territoriality.

**Discouraging Vandalism
in Your School**

Establish the Territory

- Put up signs
- Maintenance: Keep your Habitat looking presentable to the public.
- Landscape design: Where you plan and plant your site depends on the space available ... and on the steps you can take to discourage vandalism.
- Lights and fences

Slide 8

Natural surveillance is the second important consideration for discouraging vandalism.

**Discouraging Vandalism
in Your School**

Natural Surveillance

Criminals don't want to be seen.
Placing physical features,
activities, and people in ways
that maximize visibility
discourages crime.

Slide 9

Here are a few ways to establish natural surveillance in your Habitat. Remember, the more eyes on your Habitat Education Site, the less likely vandals will succeed.

**Discouraging Vandalism
in Your School**

Establish Natural Surveillance

- Landscaping: Involving students in the design of habitat sites gives them a feeling of ownership.
- Gatekeepers: The office staff are gatekeepers and keep track of everyone who visits. School neighbors can be gatekeepers by keeping an eye on the site.
- Encourage volunteers to maintain a very visible presence by scheduling their activities on various days and times of day.

Slide 10

Activity support is the third strategy for discouraging vandalism. If there is lots of activity in your Habitat and different people using it, vandals are more likely to stay away.

**Discouraging Vandalism
in Your School**

Activity Support

- Encouraging legitimate activity in public places helps discourage crime.
- Any activity that gets people out and working together helps prevent crime.

Slide 11

There are lots of ways to encourage activity in your Habitat outside class time.

Discouraging Vandalism in Your School

Establish Activity Support

- **Community Involvement:** The more people who are involved with and care about your site, the more eyes and ears you will have in the community.
- **Ideas:** Hold a community open house—conduct a “bug” count and invite classes from neighboring schools—offer regularly scheduled “habitat” tours—hold celebrations—hold “clean up days”

Slide 12

Access control is the fourth strategy for discouraging vandalism.

A well-lit or fence-enclosed site discourages vandals from entering during after-school hours. But, sometimes, a fence can be an “attractive nuisance”—it makes vandals curious about what is inside.

If a fence does not keep vandals out, sometimes planting thorny bushes along the border of the fence will. Some schools have even installed surveillance cameras as a way to warn away vandals.

Sometimes it may be necessary to move trees or plants if they become a place for vandals to hide. At one school, local police recommended moving several trees that made a visual barrier from the street. Once the trees were moved and the police could do surveillance checks at night as they drove by, a group of young teenagers moved their regular hangout spot from the Habitat to somewhere else.

Remember, if your site is secluded, private, and easy to access, then vandalism may increase.

Discouraging Vandalism in Your School

Access Control

Properly located entrances, exits, fencing, landscaping, and lighting can direct both foot and automobile traffic to discourage crime.

Slide 13

It's important that your school have a policy for dealing with vandalism if it occurs. Be sure everyone understands the policy, including the students.

Discouraging Vandalism in Your School


School Rules and District Policy

- Include special references to your project in your school code and conduct rules, and encourage your school district to include habitat sites at all schools in the policy manuals under “Vandalism” or “Care of School Property by Students.”
- Make sure everyone understands that vandalism is a crime and that crimes are reported to police.

Slide 14

In the unfortunate event that your school Habitat Education Site is hit by vandals, it is crucial to take immediate action. Vandalism can be an emotionally difficult experience for volunteers, students, and teachers. It will be important to help students through this process.

**Discouraging Vandalism
in Your School**




Steps to Take if Hit

- Contact the proper authorities.
- Follow school's procedures for reporting crimes.
- Ask the police to keep an eye on your site as they patrol.
- Clean up immediately and take pictures if needed.
- Counsel and continue to educate students.

Slide 15

(View)

**Discouraging Vandalism
in Your School**




Steps to Take if Hit

- Older students who are active in the project can visit other classes and schools to talk about what happened and how to prevent it from happening again.
- Contact your neighbors.
- Rethink the design and use of your site.
- Remember vandalism does happen—take steps so it happens less often.

Slide 16

Not all vandalism can be prevented. But, it can be minimized if you have a plan.

**Discouraging Vandalism
in Your School**



Preventing Vandalism

- Creating habitat on school grounds is a positive contribution to the school and community.
- Don't let vandalism or your fear of crime deter you—let the joy of creation guide you!

Summer in the Habitat

Slide 1

A summer maintenance plan helps ensure the success of your project, helps deter vandalism, and provides opportunities for teaching about wildlife needs and human responsibilities.

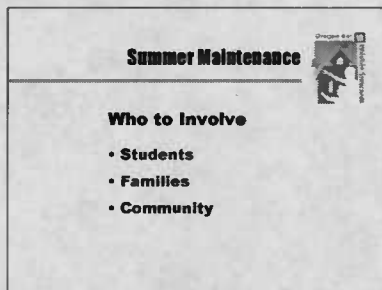
Establishing and implementing a summer maintenance plan is critical to the long-term success of your project. Existing sites and especially new plantings require careful summer maintenance and lots of H₂O in order to survive the long, often dry months of summer.



Slide 2

Who should be involved in the summer maintenance of the site?

It is ideal if the wildlife Habitat Education Site can be maintained by students, families, and community members in partnership with the 4-H Wildlife Stewards volunteers. A shared effort ensures ownership and longevity of the project.

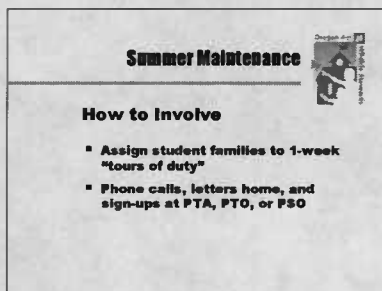


Slide 3

Some successful ways to involve families include:

Assigning families to a 1- or 2-week period during which they are responsible for maintenance of the site. Most families are happy to make a short-term commitment to the project, and students love returning to school in the summer with their family. It is usually a time when many of the plants are blooming and wildlife are present.

Some suggestions for getting commitment from these volunteers includes phone calls, a letter home to parents asking for support, and sign-ups at a PTA, PTO, or PSO meeting. In addition, post a "Help Wanted" ad in a school newsletter, website, or on the 4-H Wildlife Stewards bulletin board.



Slide 4

A good plant is a terrible thing to waste. Remember that much money and time has gone into planting or restoring a Habitat Education Site.

Most schools control the outside watering system by requiring a hose bib (faucet) key. Ask your school custodian or groundskeeper if you can borrow a key for the summer.

Summer Maintenance



Don't Forget the Key

A good plant is a terrible thing to waste. Don't forget to pick up the hose bib (faucet) key. Ask your groundskeeper if he or she can lend one for the summer.

Slide 5

Set up a locked storage area or shed with a combination lock to store tools, hoses, and the water key.

This is also a great place to keep a log sheet to record the last tasks accomplished in the Habitat Education Site. It's fun for families to make notes about sightings or occurrences on the site. Wildlife observation logs for families also provide a place to record summer visitors.

Keep a list of emergency contact numbers for key 4-H Wildlife Stewards volunteers, the school district maintenance office, and families for passing on important information.

This is a great place to list the minimum tasks and a wish list of needs that volunteers can address each week.

Summer Maintenance



Home for Hose and Hoes

- Locked storage area or shed with combo lock
- Log sheet to record the last task accomplished
- Great place for emergency contacts
- A place for the minimum needs that must be addressed each week

Slide 6

Keep a reference notebook with a picture catalog identifying known weeds and other invasive plants.

Keep a picture catalog of welcome plants in the Habitat Education Site and the water, sun, and soil requirements for each of them. Because there are many volunteers maintaining the area, this will help ensure that plants are not over- or under-watered.

Summer Maintenance



Weed Whacking 101

- Keep a picture catalog identifying known weeds and other invasive plants.
- Keep a picture catalog of plants to keep and encourage, including H₂O, sun, and soil requirements.


Slide 7

The groundskeeper or summer custodian must be on board for your project success. He or she must be assured that the project site will be maintained, how this will be done, and who will be performing the job.

The groundskeeper is not responsible to maintain the site, but it is very important that he or she know the details of your maintenance plan. Horror stories of summer maintenance crews for the school district mowing whole projects, digging into buried watering pipe, and pruning plants to the ground are more common than you would think.

To protect the students' and volunteers' hard work, give a notebook to the school groundskeeper that includes a site map, contact numbers, plant identification, and any pesticide or herbicide restraints for the site.

Summer Maintenance



The Groundskeeper

- Groundskeepers must know the site will be maintained.
- Groundskeepers are not responsible for the site.
- A notebook for the groundskeeper includes:
 - ✓ Site map
 - ✓ Contact numbers
 - ✓ Plant identification
 - ✓ Herbicide and pesticide restraints

Slide 8


Nosey Neighbors are Good Neighbors: Neighbors who are aware of the project add their open eyes and ears to monitor the comings and goings on the site. These watchful neighbors go a long way in deterring vandalism of the site.

To inform the neighbors about your project, you can invite them to a kick-off celebration and share the project.

Students can write a letter explaining the project and mail or deliver it to the neighbors.

It is very important that students realize that the Habitat Education Site is their project. This is one reason it is so important to involve students in the planning, creation, and maintenance of the site. Vandalism will greatly decrease if students are keeping a watchful eye on an area that they helped create or restore.

Summer Maintenance




Nosey Neighbors are Good Neighbors

- Inform the neighborhood.
- Have students write to each neighbor.
- Make sure students consider the site their own.

Slide 9

For more information, refer to the *Oregon 4-H Wildlife Stewards Volunteer Handbook*, Section IV—"Sustaining Your Habitat Education Site."

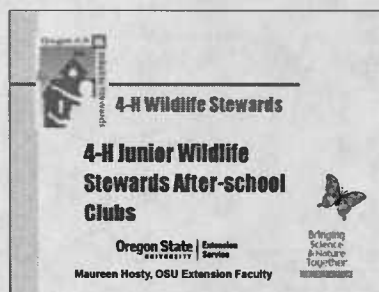
Summer Maintenance



References

Oregon 4-H Wildlife Stewards
Volunteer Handbook

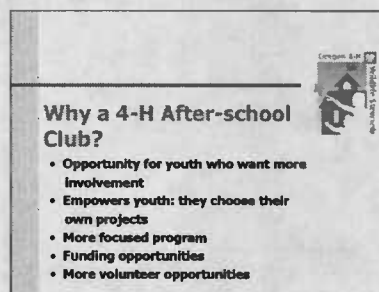
4-H Junior Wildlife Stewards After-school Clubs



Slide 2

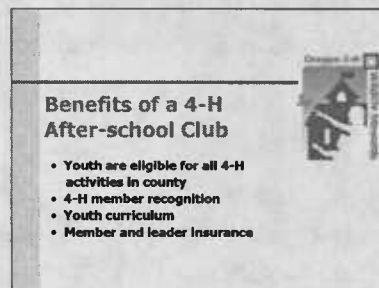
Here are five reasons why your school may choose to start an after-school club:

1. Opportunity for youth who want more involvement. Youth can spend more time in the Habitat and develop their special interests.
2. Empowers youth. They choose their own projects that are not dictated by school curricula.
3. More focused program. Your club may decide to focus on bugs the whole year, or birds—this allows more in-depth studies.
4. Funding opportunities are expanded. Some organizations do not fund in-school programs but may fund after-school programs.
5. More volunteer opportunities. Some parents and other community partners may be more available after school than during school.



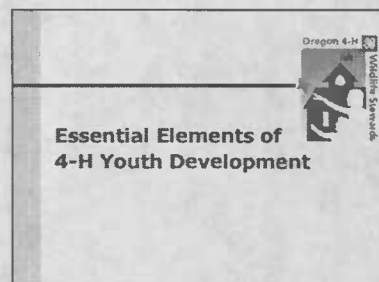
Slide 3

NOTE: Check with your local 4-H office to find out what benefits your after-school club may receive.




Slide 4

The 4-H After-school Club program allows leaders more flexibility to build not just kids' skills and knowledge, but also kids who are strong in leadership, self-confidence, teamwork, and service to others, to name just a few.



Slide 5

These are the essential elements of 4-H youth development.




Essential Elements of 4-H Youth Development

BELONGING <ul style="list-style-type: none"> • Positive relations with a caring adult • Inclusive environment • Safe environment 	MASTERY <ul style="list-style-type: none"> • Engagement in learning • Opportunity for mastery
INDEPENDENCE <ul style="list-style-type: none"> • Opportunity to see oneself as an active participant in the future • Opportunity for self-determination 	GENEROSITY <ul style="list-style-type: none"> • Opportunity to value and practice service to others

Slide 6

All children, no matter what their socio-economic background, will find ways to:

(Read slide)




All youth will find ways to:

1. Meet their basic needs
2. Build skills and values
3. Use their talents, energies, and time in ways that make them feel good and powerful

Slide 7

4-H recognizes these basic needs, and a 4-H After-school Club can help meet them.




I pledge my head to clearer thinking . . .

Youth need to know that they are able to influence people and events through decision making and action.

Slide 8

(Read slide)




My heart to greater loyalty . . .

Current research emphasizes the importance for youth of long-term, consistent relationships with adults other than parents.

This research suggests that *belonging* may be the single most powerful positive ingredient we can add to the lives of youth.

Slide 9


(Read slide)



My hands to larger service . . .

Youth need to feel their lives have meaning and purpose. By participating in 4-H community service and citizenship activities, youth can connect to communities and learn to give back to others.


Slide 10
(Read slide)



My health to better living . . .

In order to develop self-confidence, youth need to feel and believe they are capable. They must experience success at solving problems and meeting challenges.

Slide 11
So, what happens to youth in these three different scenarios?




Why is meeting youth needs so important?

What happens to youth...

- ...if need is met in positive ways?
- ...if need is met in negative ways?
- ...if need is not met?

Slide 12
If youth needs are met in positive ways, they develop these characteristics.




...if youth needs are met in positive ways?

Youth develop traits most of us relate to character . . .

BELONGING	MASTERY	POWER	GENEROSITY
Attached	Achieving	Autonomous	Altruistic
Loving	Successful	Confident	Caring
Friendly	Creative	Assertive	Sharing
Intimate	Problem solver	Responsible	Loyal
Secure	Motivated	Inner control	Empathetic
Cooperative	Persistent	Self-disciplined	Pro-social
Trusting	Competent	Leadership	Supportive

Slide 13
If youth needs are met in negative ways, they develop these characteristics.

Your job as a 4-H club leader is to find ways during your club program that youth can have their needs met in belonging, mastery, power, and generosity. Find out where each child is at, and then help each of them to find positive ways to meet their needs.



...if youth needs are met in negative ways?

BELONGING	MASTERY	POWER	GENEROSITY
Self-loathing	Overachieve	Overcontrol	Over emotional
Clingy, lonely	Angry	Reckless	Peer leader
Cries often	Chatter	Bully	Co-dependent
Promiscuous	Workaholic	Serial process	
Clinging	Delinquent skills	Defies authority	
Overly dependent		Indifferent	

Slide 14
If youth needs are not met, they develop these characteristics.




...if youth needs are not met?

Unmet needs can become defining factors in the lives of youth.

BELONGING	MASTERY	POWER	GENEROSITY
Loneliness	Self-doubt	Superiority	Envy
Isolation	Awake all	Self confidence	Perfection
Repeating	Never change	Incapable	Harshness
Lonely	Overwhelmed	Incapable	Self-hatred
Self	Overly self	Overwhelmed	Explosive
Lonely		Self-influenced	
Overwhelmed			

Slide 15

NOTE: Each state varies in how to enroll a 4-H club. Adapt this slide to match your state guidelines. Distribute or point out the forms your participants will need.




How do we enroll?

- Organize and host your first club meeting.
- Complete 4-H Member and Club enrollment forms.
- Submit your enrollment forms to your local 4-H agent.

Slide 16

Many 4-H clubs share common characteristics. Remember, the 4-H club is the kids' club. Let them make as many of the decisions as possible about the type of projects they do, the service projects they conduct, or the county-wide events they participate in.




Features of a 4-H Club

- Youth select projects
- Youth elect officers
- Community service projects
- County-wide events

Slide 17

Here is a sample 4-H After-school Club meeting agenda. However, club meeting agendas do vary greatly from club to club. Find out what works best for your club by adapting this agenda and getting feedback from the members.




Sample 4-H Club Meeting Agenda

- Welcome and snack
- Business Meeting (youth club officers)
- Game or other activity
- Work on project

Slide 18

Here are a few important reminders when conducting your club.




Things to Remember

- Develop parent expectations.
- Dues are a way to sustain the club.
- Use cross-age mentoring.
- Keep it kid-driven.
- Provide opportunities for youth to teach and share.

Slide 19

NOTE: These are a sample of enrichment activities your 4-H club can participate in. Adapt this slide for your county, state, or region.



Enrichment Opportunities

- 4-H Wildlife Stewards Summit
- 4-H Junior Wildlife Stewards Camp
- County Fair
- 4-H Record Books
- 4-H Corroborree

Closing Program



Slide 2 _____



Slide 3 _____



Slide 4 _____



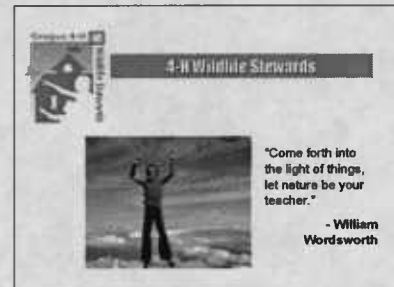
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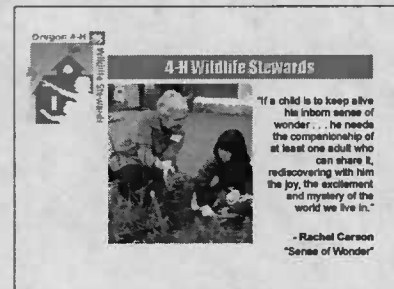
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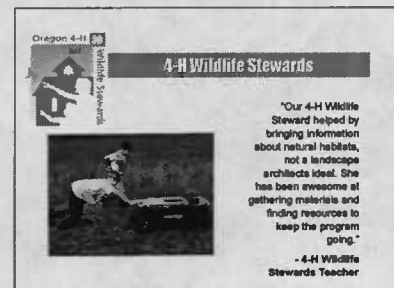
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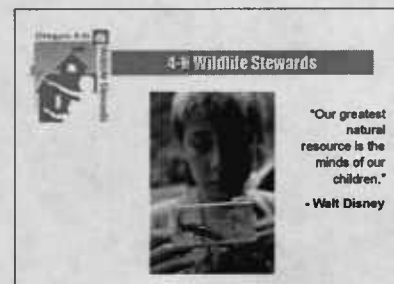
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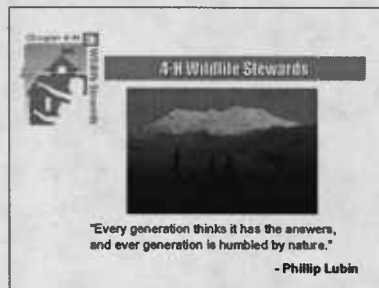
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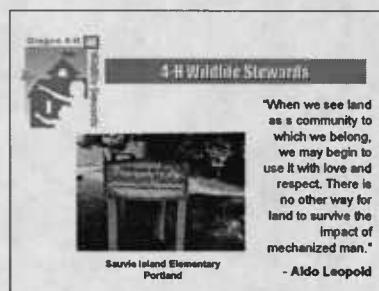
Slide 10 _____



Slide 11 _____



Slide 12 _____



Slide 13 _____




Slide 14 _____




Slide 15 _____



Slide 16




4-H Wildlife Stewards




"When the bird and the book disagree, always believe the bird."
- Birdwatchers' proverb

Slide 17




4-H Wildlife Stewards




"Our 4-H Wildlife Steward has been awesome! She has helped us design and start our memorial garden and the total plan for our school. We finally have a core group of parents, community, students and staff moving because of her direction. I could go on and on!"
- 4-H Wildlife Stewards Member School Teacher
Kathryn Middle School
Portland

Slide 18



4-H Wildlife Stewards



"Nothing is so contagious as enthusiasm. . . It is the genius of sincerity, and truth accomplished no victories without it."
- Edward Bulwer-Lytton

Slide 19




4-H Wildlife Stewards




"A joy shared is a joy doubled."
- Goethe

Slide 20




4-H Wildlife Stewards




"This has been a life-changing involvement in the most positive way. I feel it is a privilege to be involved with such a great program."
- 4-H Wildlife Steward

Slide 21 _____



4-H Wildlife Stewards



Never a day passes but that I do myself the honor to commune with some of nature's varied forms."
- George Washington Carver

Slide 22 _____




4-H Wildlife Stewards




"One's happiness depends less on what he knows than on what he feels."
- Liberty Hyde Bailey

Slide 23 _____



4-H Wildlife Stewards



"Those who have the humility of a child may find again the key to reverence for, and kinship with, all life."
- J. Allen Boons

Slide 24 _____




4-H Wildlife Stewards




"Men argue, nature acts."
- Voltaire

Slide 25 _____



4-H Wildlife Stewards

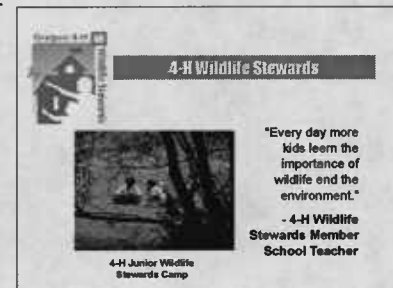


"The most important thing our school has learned as a community is how willing our community is to support student projects."
- 4-H Wildlife Stewards Member School Teacher

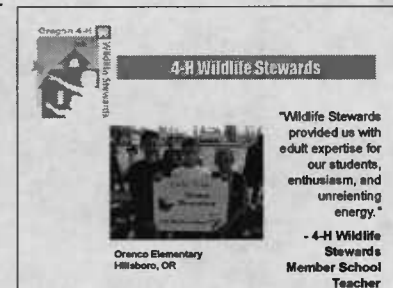
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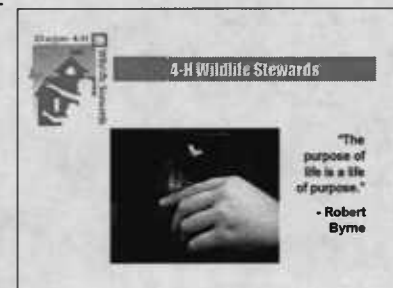
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Slide 28



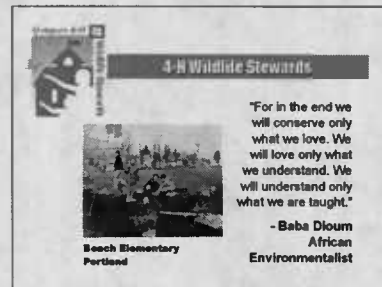
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Organization and Logistics

Sample Guest Trainer Confirmation Letter

Date

Fred Flintstone
123 Bedrock Lane
Hollywood, CA 98888



Dear Fred:

We are pleased that you have agreed to present a workshop at our October 2008 4-H Wildlife Stewards Training. We are excited about this training session and look forward to working with you.

You are scheduled to give your presentation, *Native Plants of Oregon*, on Saturday, October 8th at 2:00 p.m. Please arrive 15 minutes early so we can go over any last minute details.

Enclosed with this letter is an outline of the training schedule. This will provide you an overview of the entire training course and where your presentation fits in the course.

The training will be held at the 4-H Education and Conference Center west of Salem, Oregon. I have included a map with directions for your convenience.

We have 25 4-H Wildlife Steward trainees enrolled in this training. Please prepare for a total of 30 participants, which includes staff and other special guests and visitors. If you need any special audiovisual equipment such as overheads, slide projectors, or TV/VCR, please contact me as soon as possible.

If you have any questions or concerns, please don't hesitate to call me at (phone) or (email).

Sincerely,

Jane Doe
OSU Extension Faculty
4-H Youth Development
State Volunteer Coordinator
4-H Wildlife Stewards
(phone)
(email)

Sample Participant Confirmation Letter

Date

Fred Flintstone
123 Bedrock Lane
Portland, OR 97215



Dear Fred,

I am very happy to inform you that your application to the 4-H Wildlife Stewards Program has been accepted. We have reserved space for you in our upcoming training.

The 4-H Wildlife Stewards training begins on Friday, October 8th at the 4-H Education Center in Salem. The training runs for 3 consecutive days. Enclosed with this letter is an outline of the training course and a map to the training site.

The first training session begins at 9:00 a.m. sharp. Please be punctual; we have an abundance of material to cover. Attendance at the entire training course is required. If, for any reason, you are unable to attend one of the training sessions, please call me at [phone].

Lunches, snacks, and beverages are provided each day of the training and are included in the \$89.00 registration fee. Please let us know in advance of any dietary restrictions (i.e., vegetarian). If you need overnight accommodations, the cost for training, materials, lunches, snacks, two breakfasts and dinners with a shared room is \$145.00 total fee. Same as above with a single room is \$158.00 total fee. Registrations after October 1, 2008, are subject to acceptance and a \$20.00 late fee.

Dress is casual for the training. Please be sure to bring rain gear, warm clothing, and good shoes for the outdoors since we will be going outside frequently. Those staying overnight should bring a pillow, sleeping bag or bedding, towel, and toiletries.

The "Oregon State University Extension Service 4-H Volunteer Service Application" and "4-H Leader Enrollment Form" are enclosed with this letter. Bring these completed forms with you to the first day of training.

We are excited to work with you. If you have any questions, please feel free to call or email me at the address below.

Sincerely,

Jane Doe
OSU Extension Faculty
4-H Wildlife Stewards Volunteer Coordinator
[phone]
[email]

Attachments:

- Outline of training course
- Map to the training site (you will provide a suitable map with directions)
- OSU Extension Service 4-H Volunteer Service Application
- 4-H Leader Enrollment Form

Sample Press Release

FOR IMMEDIATE RELEASE

DATE

CONTACT

NAME

TITLE

PHONE

E-MAIL

VOLUNTEER OPPORTUNITY FOR SCHOOL HABITAT EDUCATION SITE PROJECT

Do you know the difference between a mason bee and a mason jar? How about a scrub jay and a scrub brush? Have you always enjoyed nature and science and wanted to share your enthusiasm and knowledge with kids? Now is your chance to join a Habitat Education Site team and share your skills with children and community as a 4-H Wildlife Steward.

We are currently recruiting volunteers to work with [name of school]. 4-H Wildlife Stewards are trained volunteers working in partnership with public and private organizations to assist students and teachers in developing, using, and sustaining Habitat Education Sites on school grounds. A Habitat Education Site is a place on or near school grounds that invites wildlife and provides hands-on learning opportunities for students and teachers.

Our training will be held at [place], [date], and [time]. The training fee is [cost]. Cost includes 24 hours of hands-on training, the Oregon 4-H Wildlife Stewards Project Volunteer Handbook including classroom curriculum, all training materials, and lunch each day. There is an additional fee of [cost] for overnight accommodations.

"4-H is a community of young people across America who are learning leadership, citizenship, and life skills."

###

4-H Wildlife Stewards

School and Community Volunteer Leader Training DATE

Registration deadline DATE



LOCATION
&
ADDRESS

Bringing
Science
& Nature
Together

ONE SCHOOL AT A TIME

Sample Training Sessions

- Keys to successful habitat education sites.
- Native plants
- Principles of wildlife management
- Mapping and inventorying your site
- Curriculum lessons for the habitat
- Teaching science inquiry

For more information contact:

NAME
ADDRESS
PHONE
E-MAIL

Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status. Oregon State University Extension Service is an Equal Opportunity Employer

Reasonable accommodations will be provided to those with physical or mental disabilities in order to attend Extension programs. Please contact NAME & PHONE in advance to make arrangements.



An OSU Extension and 4-H Wildlife Science Education Program

4-H Wildlife Stewards

School and Community Volunteer Leader Training



DATE
&
TIME



LOCATION
&
ADDRESS

Sample Promotional Brochure, page 2 of 2

Training includes:

- A hands-on interactive workshop designed for community and school volunteers and teachers who wish to develop, utilize and sustain wildlife habitat education sites on school grounds.
- The nuts and bolts of bringing the 4-H Wildlife Stewards program to your school.



NEW!
4-H Wildlife Stewards Training
Available On-Line

For special circumstances, if you are unable to attend a day or part of a day, you can complete your training on-line. Please contact our office at (503)-916-6074 for more information.

Participants receive:

- 4-H Wildlife Stewards Curriculum with over 50 lessons tied to Oregon Educational Benchmarks
- A Wildlife Stewards Project Handbook.
- Classes on insects, native plants, mammals, birds and reptiles, & grant writing
- Access to the 4-H Wildlife Stewards education kits.
- No cost admittance to supplemental workshops

4-H Wildlife Steward Volunteers

4-H Wildlife Steward Volunteers are trained to assist students and teachers in development of the 4-H wildlife habitat education sites that will be used for hands-on science education with students. Volunteers receive interactive training on native plant selection, habitat design, teaching skills and a wealth of educational resources. To be a volunteer you need to possess:

- General interest and/or background in wildlife, natural science, and gardening for wildlife in a school setting.
- Flexible daytime hours.
- Good "people skills" and/or experience in a school setting as a parent, teacher or volunteer.
- Fifty hours of volunteer time to give to the 4-H Wildlife Steward project.

Training Fee: COST

Training fee includes 24 hours of hands-on training, a 4-H Wildlife Stewards Project Handbook including classroom curriculum, all training materials and lunch each day.

Overnight accommodations are available for an additional fee of COST. This fee includes two breakfasts and two dinners. Bring a sleeping bag, pillow, towels, warm clothes, and an extra pair of shoes (in case one pair gets wet).

*OSU Credits available for an additional fee.

*Financial assistance available on request.

OVERNIGHT ACCOMMODATIONS

Treetops Village, which opened in June of 2004, is the newest addition to the wonderful facilities at YMCA Camp Collins. Each cabin is connected by a beautiful bridge and deck system that looks out into the forest. Each cabin in Treetops Village has 14 beds. Each of the beds has its own window and a bunk light. The cabins have half bathrooms, a drying area in the entrance, as well as carpeted and heated floors. Showers (hot and cold water) are located in a nearby bath facility.

Workshop Registration:

Please specify your lunch preference:

Meat ☐ Vegetarian ☐

Name: _____ School: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Your Role: ☐ Teacher ☐ Parent Volunteer ☐ Teen ☐ Community Partner ☐ Other

Clip, include check payable to OSU Extension and mail to:

4-H Wildlife Stewards, 3421 SE Salmon, Portland, Oregon 97214

Sample Training Flyer

FOR MORE INFORMATION AND TO REGISTER CONTACT:

4-H Wildlife Stewards
Oregon State University Extension Service
11611 NE Ainsworth Circle
Portland, OR 97220
503-257-1694
swieske4h@mesd.k12.or.us



This project was sponsored, in part,
by the
National Science Foundation
Funding opportunities are listed at the bottom
and full opportunity forms at the Foundation.



**Training Fee: \$60.00 includes Project Handbook
And three lunches EXCEPT Bend training fee is \$69.00.
Inexpensive overnight accommodations
Are available for an additional fee. Call for more
information.**

**"Bringing Science and Nature Together,
One School at a Time"**

Training Sessions Include:

- Keys to Successful School Habitat Education Sites
- Native Plants
- Principles of Wildlife Management
- Mapping and Inventorying Your Site
- Curriculum Lessons for the Habitat
- Teaching Science Inquiry



4-H Wildlife Stewards Volunteer Trainings

**4-H Wildlife Stewards are trained
volunteers working in partnership
with public and private
organizations to assist students
and teachers to create, use and
sustain wildlife habitat education
sites on school grounds.**

February 27-29, 2004

Rock Springs Guest Ranch, Bend, Oregon

April 16-18, 2004

MESD Building, Portland, Oregon



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Day One—Keys to Success

4-H Photo Release Form



4-H Youth Development Education Department
Oregon State University, 105 Ballard Hall, Corvallis, Oregon 97331-3608
T 541-737-2421 | F 541-737-1332 | <http://oregon.4h.oregonstate.edu>

Oregon 4-H Youth Development Program Photo Release

I authorize the Oregon 4-H Youth Development Program, Oregon State University, and those acting pursuant to its authority to use my image and voice on videotape, audiotape, film, photograph, or in any other medium, including the World Wide Web for educational, fundraising, or promotional purposes

Furthermore, I waive the right to inspect and/or approve any of the above that contains my photo.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Date: _____

SAMPLE**4-H WILDLIFE STEWARDS ANNUAL HABITAT EDUCATION SITE REVIEW****4-H Wildlife Stewards Program**

3421 SE Salmon

Portland, Oregon 97214-4268

Phone: (503)-916-6074

Fax: (503)-916-2676

www.wildlifestewards.4h.oregonstate.edu

School name _____

Habitat Education Site

Site features completed or in progress (Please check all that apply.)

- | | | |
|---|---|--|
| <input type="checkbox"/> Bird garden | <input type="checkbox"/> Butterfly garden | <input type="checkbox"/> Vegetable garden |
| <input type="checkbox"/> Historical garden | <input type="checkbox"/> Woodlands | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Native American garden | <input type="checkbox"/> Garden pond | <input type="checkbox"/> Bioswales |
| <input type="checkbox"/> Dry stream bed | <input type="checkbox"/> Stream restoration | <input type="checkbox"/> School nursery |
| <input type="checkbox"/> Greenhouse | <input type="checkbox"/> Worm composting | <input type="checkbox"/> Nest boxes |
| <input type="checkbox"/> Amphitheater | <input type="checkbox"/> Learning shelter | <input type="checkbox"/> Wheelchair accessible |

Project Highlights

Tell others about your project and what you are learning. Please limit your response to 250 words.

Share your thoughts: How is your project helping students improve their science skills? Please limit your response to 250 words.

Would you be interested in a secure online internet exchange with other classrooms? ☐ Yes ☐ No**Level of Participation**

Indicate the average number of hours per month your students participate in hands-on projects in the Habitat Education Site.

- ☐
- 1-2 hours
- ☐
- 3-6 hours
- ☐
- 7-15 hours
- ☐
- More than 15 hours

Number of participating parents who volunteer with the Habitat Education Site _____

Funding Sources

Estimate the amount of funds you generated this year.

In-kind donations \$ _____

Grants _____

Sales/fundraisers _____

Cash donations _____

Total \$ _____

Partners

Please list key organizations and group partners who assist with this project, such as community clubs, neighborhood associations, community agencies, garden shops, etc.

Square feet of Wildlife Habitat created and/or maintained this year _____



Balloon Plants

Here's how to make your own



1. Hold a balloon firmly by the neck. (The neck is the long part.) Use a funnel, and pour $\frac{1}{2}$ cup of dirt into the balloon. Don't turn the balloon over.
2. Keep holding the balloon by the neck. Add about $\frac{1}{4}$ cup of water through the funnel. Be sure the soil in the balloon is wet. It shouldn't be soggy, though.
3. Use the funnel to drop the radish seeds into the balloon. Don't turn the balloon over.
4. If the balloon is dirty, wipe it carefully with a cloth.
5. Now you're ready to blow up your balloon! Keep holding it gently by the neck, and carefully blow air into it. You need to keep the balloon from tipping.
6. Tie a knot in the neck to keep the air in the balloon. Tie a ribbon around the knot.
7. Tie the balloon (neck on top) to a hook or other place near a window.
8. Your balloon plant is ready to begin growing!



Oregon State | **Extension**
UNIVERSITY | Service



Oregon 4-H Wildlife Stewards



Bringing
Science
& Nature
Together

ONE SCHOOL AT A TIME

Enrollment Record

OREGON 4-H WILDLIFE STEWARDS TRAINERS GUIDE



4-H LEADER ENROLLMENT FORM

Oregon State University Extension Service 2007-2008

Due: _____ Return form to: 3421 SE Salmon, Portland, OR 97214



Name _____
Last
First
Middle initial

Mailing Address _____

City _____ State _____ Zip _____

Gender: _____ Residence*: _____ Racial Group*: _____ Hispanic?: Yes / No

Number of years as a 4-H Leader: (include this year) _____ Role(s)*: _____ Committee(s)* _____

(* Codes for Residence, Racial Group, Roles, and Committees are on back of form)

Phones: Description	Area Code	Number	Extension

E-mail _____

WOULD YOU LIKE YOUR NEWSLETTER BY _____ E-mail OR _____ US Mail? (additional announcements will be sent by E-mail)

Club Wildlife Stewards # G412001
club name
club number (Office Use Only)

Projects you lead (see project identification codes on the back)

Description	Code	Description	Code
Wildlife Stewards	412		

ADULT VOLUNTEER EXPECTATIONS

The Oregon State University Extension Service strives to provide quality leadership for youth participating in 4-H programs. The opportunity to work with youth is a privileged position of trust that should be held only by those who are willing to demonstrate behaviors that fulfill this trust. The following behavior expectations are provided for volunteers working in the OSU Extension Service 4-H Youth Development Program.

1. Treat others in a courteous, respectful manner demonstrating behaviors appropriate to a positive role model for youth.
2. Abide by policies and guidelines of the Oregon State University Extension Service state and county 4-H programs.
3. Obey all laws of the locality, state, and nation, including those related to use of illegal substances, or use of firearms.
4. Make all reasonable effort to assure that 4-H youth programs are accessible without regard to race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status.
5. Recognize that verbal, sexual, physical abuse, and/or neglect of youth is unacceptable either within or outside the 4-H Youth Development Program. Report suspected abuse.
6. Treat animals humanely and teach 4-H youth to provide appropriate animal care.
7. Operate machinery, vehicles and other equipment in a safe and responsible manner, and only with a valid operator's license and the legally required insurance coverage.
8. Handle fund raising and finances in an ethical manner.
9. Do not consume alcohol while responsible for youth in 4-H activities nor allow 4-H youth participants under your supervision to consume alcohol or illegal substances.
 - I have read, understand and agree to the OSU Extension Service 4-H Adult Volunteer Expectations.
 - I have read and understand the information contained in the publication "For the Well-being of Youth and Adults" (4-H 0258L) and agree to follow the adult/youth interaction-barriers to abuse guidelines contained in this publication.
 - Use my name, hometown, image and voice on videotape, audiotape, film, photograph, or in any other medium, including the World Wide Web for educational, fundraising, or promotional purposes.

Signature - REQUIRED _____ Date _____

Office use only:	Received: _____	By: _____
	Entered: _____	Card: _____
Notes:		

Codes for Enrollment Form

ROLE CODES

CC	Community Coordinator
LC	Community Club Volunteer
PC	Project Club Volunteer
AL	Activity Volunteer
RL	Resource Volunteer
ET	Teacher (School Enrichment)
SI	Special Interest Group Volunteer
PO	Public Official
SC	SACC Contact
SP	School Principal/Contact
CS	Camp Staff
DS	Donor/Supporter

COMMITTEE CODES

AC	Auction Committee
AMC	Ambassador Club
CPC	Camp Committee
DC	Dog Advisory
ERC	Expansion and Review Committee
FC	Fair Management Committee
HC	Horse Committee
HEC	HEARTH (Home Economics, Expressive Arts, & Horticulture)
K3A	K-3 Adventures Committee
LC	Livestock Advisory
LEC	Leaders Executive Board
NSC	Natural Science Committee
OC1	Junior Horse Advisory
ODC	White Water Rafting
RGC	Awards & Recognition Committee
SAC	Small Animal Advisory

RACIAL GROUP CODES

1	White
2	Black or African American
3	Native American or Alaskan Native
4	Asian or Pacific Islander
5	More than one race

RESIDENCE CODES

1	Farm – You live in a rural area and usually sell \$1,000 or more of agricultural products each year.
2	Towns and Rural Non-Farm (population under 10,000) – You live in a small town like Sandy or Molalla or on a rural acreage that does not fit the definition of a farm. You definitely live OUTSIDE the Metro Urban Growth Boundary.
3	City 10,000 to 50,000 – You live in a central city of this population. Every community this size in Clackamas County is actually a suburb (below).
4	Suburb of city over 50,000 – The majority of communities fall into this category. You probably live INSIDE or near the Metro Urban Growth Boundary.
5	City of 50,000 or more – You live within the boundaries of the City of Portland.

PROJECT CODES (statewide curriculum available*)

Citizenship and Civic Education		Personal Development and Leadership	
110	Citizenship*	611	Career Exploration
120	Cultural Education	612	Economics, Business & Marketing
130	World Citizenship/International Programs	620	Leadership Development
Communications and Expressive Arts		621	Junior Leadership*
211	Public Speaking*	622	Teen Leadership
212	Creative Writing	623	4-H Ambassador
221	Clowning	631	Camp Counselor
222	Dance	641	Leisure Education
223	Drama	Plants and Animals	
224	Music	712	Gardening, Vegetables & Herbs*
231	Art*	713	Gardening, Flowers & Ornamentals*
235	Ceramics*	721	Beef*
241	Photography*	731	Poultry*
251	Leather Craft*	732	Pigeons*
261	Fiber Arts*	741	Dairy Cattle*
Consumer and Family Sciences		751	Horse and Pony*
310	Child Care/Development*	761	Rabbits*
311	Babysitting*	762	Cavies (Guinea Pigs)*
320	Clothing and Textiles*	763	Dogs*
330	Consumer Education	764	Guide Dogs
340	Home Environment*	766	Herpetology
350	Parenting and Family Life	771	Sheep*
360	Knitting*	781	Swine*
370	Crocheting*	791	Goats – Dairy*
Natural Sciences		793	Goats – Pygmy*
410	Project WILD*	794	Goats – Fiber
411	Environmental Stewardship*	795	Goats – Meat
412	Wildlife Stewards*	799	Llamas
413	Water Quality/Watershed Education*	Science and Technology	
414	Sportfishing & Aquatic Education*	813	Science and Technology Literacy
421	Geology*	821	Entomology*
422	Weather	822	Bee Keeping
423	Marine Science*	831	Veterinary Science*
431	Energy	841	Embryology, Incredible Egg
441	Forestry*	852	Rocketry
442	Range Science/Native Plants	860	GIS-GPS
443	Wildlife	861	Computers
451	Outdoor Education/Recreation	862	Electricity/Electronics*
Nutrition and Health		864	Lego Robotics
511	Foods and Nutrition*	871	Wood Science*
512	Food Preservation*	881	Tractors and Equipment*
520	Health	882	Small Engines
521	Fitness and Sports	Adventures/K 3 Programs	
522	First Aid/CPR	911	4-H Adventures
523	Vision Education	All club members in grades K-3 are considered to be in the 4-H Adventures Program. This is a non-competitive general curriculum project. For specific 4-H Adventures Program guidelines and Available curriculum, please consult your local OSU Extension 4-H Office.	
531	Safety		
532	Tractor/Machinery Certification*		
534	Bicycle Safety*		

What Phases are my members?

Phase only applies to Clothing & Textiles, Knitting, Crocheting, Foods & Nutrition, and Food Preservation projects. No other projects use phases. For list of phases, see the back of the member enrollment form. Contact the Extension office for help determining the appropriate phases for your members.

What Levels are my members?

Adv.	Kindergarten – 3 rd grade
Jr.	4 th – 6 th grade
Int.	7 th – 9 th grade
Sr.	10 th – 12 th grade



MEMBER SCHOOL APPLICATION

4-H Wildlife Stewards is a Master Science Educators Program

School Information

School Name _____ Principal Name _____
 School Address _____
 City _____ State _____ Zip _____
 School Phone _____ School Fax _____
 School Internet Address _____

Project Leadership

Key School Contact Name _____ ☐ Teacher ☐ Parent ☐ Principal ☐ Other
 Key School Contact Phone _____ Fax _____
 Key School Contact E-mail _____ Best time to call _____

Project Description

Project goal: _____

Description of project: _____

What are the space requirements and/or special considerations for your wildlife habitat?

Resources Available

What funds do you have available for materials and supplies for this project?

Amount	Funding Source
_____	_____
_____	_____
_____	_____
_____	_____

What other partners/agencies have been identified to work with this project?

OREGON 4-H WILDLIFE STEWARDS TRAINERS GUIDE

Partner	Role
_____	_____
_____	_____
_____	_____
_____	_____

A team of 4-H Wildlife Stewards assigned to work with your school has been screened and approved to participate in this project. Each trained 4-H Wildlife Steward will be asked to give 50 hours of volunteer service to their assigned school.

How many hours do you estimate utilizing the 4-H Wildlife Stewards in your project?

- _____ co-teaching environmental education classes with teachers
- _____ assisting in developing of short-term and long-term goals
- _____ assisting in selecting plants for the habitat
- _____ assisting in identifying resources and curriculum for the wildlife habitat
- _____ working with students and teacher to plant the habitat
- _____ arranging and/or conducting in-service training for teachers and staff
- _____ teaching gardening skills
- _____ other _____

I have read and reviewed this school profile. I understand that 4-H Wildlife Stewards Volunteers who have been screened and approved by the OSU Extension/4-H Program will be assisting teachers, parents and students at my school to create, use and sustain a Habitat Education Sites on school grounds. I understand the following expectations.

4-H Wildlife Stewards Member Schools will be expected to:

- ☐ Commit 3-5 years to the project
- ☐ Get school district approval
- ☐ Complete a 4-H School Enrollment to enroll participating students as 4-H Junior Wildlife Stewards
- ☐ Ensure that the project is a student project
- ☐ Provide meaningful volunteer opportunities for 4-H Wildlife Stewards
- ☐ Recognize OSU Extension 4-H in all promotional information
- ☐ Work toward 4-H Wildlife Steward School Advancement certification
- ☐ Assist in identifying parents and teachers to participate in the project
- ☐ Identify and secure additional resources and tools for the project

School Principal's Name

Date



www.wildlifestewards.4h.oregonstate.edu

An OSU Extension 4-H Master Science Educators Program

RETURN TO:
4H Wildlife Stewards
3421 SE Salmon
Portland, OR 97213



4-H Member School Enrollment

Oregon State University Extension Service

Return to: 3421 SE Salmon
Portland, OR 97214
fax: 503-916-2676

Due: _____
Questions? Call us at
503-916-6074



Program Name: 4-H Wildlife Stewards Date(s) of Program: _____

Teacher/Contact: _____ School: _____

Mailing Address _____

City: _____ County: _____ State: _____ Zip Code: _____

Phone: _____ E-mail: _____

☒ 4-H Wildlife Stewards ☐ Energy and the Environment ☐ Incredible Egg
☐ Earth Science ☐ Forest Education ☐ Camp
☐ GPS/GIS ☐ Other Natural Science: _____ ☐ Other _____

Program is held: ☐ during school ☐ after school ☐ other _____

TEACHER PROFILE

Male _____ Female _____ Are you (choose either): Hispanic _____ or Not Hispanic _____

Ethnicity and Racial Background (please choose one from the list below that best describes you)

White _____ Black or African American _____ Native American or Alaskan Native _____

Asian or Pacific Islander _____ More than one race _____

How many years have you participated in 4-H Educational Programs? _____

GROUP PROFILE

Number of children in each grade level

K	1	2	3	4	5	6	7	8	9	10	11	12

How many children live in: Farm _____ Town/Rural Non-Farm _____ City 10,000-50,000 _____

Suburbs of City over 50,000 _____ Central City of 50,000 or more _____

Racial Groups and Ethnicity:

#

#

Not Hispanic - White		Hispanic - White	
Not Hispanic - Black or African American		Hispanic - Black or African American	
Not Hispanic - Native American or Alaskan Native		Hispanic - Native American or Alaskan Native	
Not Hispanic - Asian or Pacific Islander		Hispanic - Asian or Pacific Islander	
Not Hispanic - More than one race		Hispanic - More than one race	

Male _____ # Female _____ How many of these students do you think are in an organized 4-H Club? _____

OFFICE USE ONLY

Received _____ Entered _____ Group #: _____

Integration _____ Delivery Mode _____ Initiative _____

Project Code(s) 412

Rev 02.08



4-H Wildlife Stewards Name Badge Registration List

Please print your name in block letters the way you would like it to appear on your name badge.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Sample Name Badge



Jane Doe

4-H Wildlife Steward

4-H Wildlife Stewards Program Expectations and Commitment

Expectations	Volunteer	WS Teacher	Participating Teacher	School (Administration)
Time commitment				
Attend a minimum of 24 hours of training.	X	X		
Provide a minimum of 50 approved hours to a 4-H Wildlife Steward Member School.	X	X		
Be willing to make a 3- to 5-year commitment to the project.				X
Marketing OSU Extension 4-H				
Include OSU Extension 4-H in all promotional materials.	X	X	X	X
Wear the 4-H Wildlife Stewards name badge and refer to yourself as OSU Extension only when conducting official 4-H business.	X	X		
Conduct yourself in a manner that reflects well on OSU Extension 4-H.	X	X		
Record keeping				
Keep records of service hours and return them to the 4-H Wildlife Stewards Volunteer Coordinator upon request.	X	X		
Complete and submit an annual 4-H Wildlife Stewards student enrollment data form.		X	X	X
Participate in annual project evaluation.	X	X		X
Securing program supplies				
Identify and secure financial resources for the Habitat with the Habitat Team.		X		X
Provide tools, supplies, and materials for planting the Habitat.		X		X
Program expectations				
Provide appropriate volunteer opportunities for the 4-H Wildlife Stewards.		X	X	X
Provide class time for developing and using the Habitat.		X	X	
Identify and recruit enthusiastic teachers to participate in the project.	X	X	X	X
Identify and recruit parents and volunteers to assist with the project.	X	X	X	X
Work to ensure the project is a student project.	X	X	X	X
Work towards 4-H Wildlife Stewards Advancement Certification.	X	X		X
Agree to minimize hazardous risks during OSU Extension educational programs by taking reasonable precautions and ensuring safeguards are practiced to reduce possible accidents.	X	X	X	X
Make the program available to all students and parent volunteers regardless of race, color, sex, national origin, disability, age, or veteran status.	X	X	X	X
Maintain the confidentiality of records and persons participating in OSU Extension programs.	X	X	X	X

I am a (check one) ☐ Volunteer ☐ WS teacher ☐ Participating teacher ☐ School administrator

Signature _____

Date _____



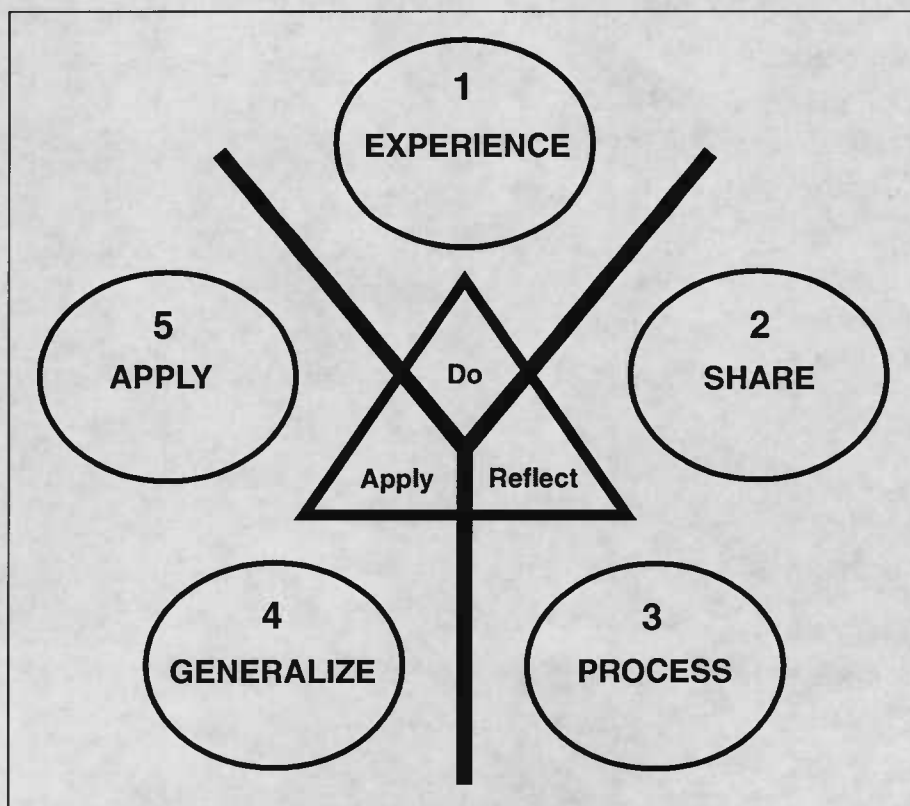
Oregon State | Extension
UNIVERSITY | Service



www.wildlifestewards.4h.orst.edu



The Science Inquiry Learning Model



Experience

- ♦ Doing
- ♦ Planning for discovery
- ♦ Exploring
- ♦ Examining

Share/Reflect

- ♦ Share reactions and observations
- ♦ Plan adequate time for discovery

Process

- ♦ Questioning: What do you want to tell me about your experience?
- ♦ What else would you like to know about it?
- ♦ What else might you try?
- ♦ Design and plan a simple investigation.
- ♦ Simple investigations
- ♦ Write a question or hypothesis.
- ♦ Decide what data you will need to collect.
- ♦ Develop procedures that are organized and logical.
- ♦ Collect and present the data.

Generalize

- ♦ Infer principles to the real world.
- ♦ Key question: “So what?”
- ♦ Analyze and interpret

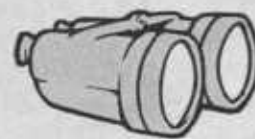
Apply

- ♦ Key question: “Now what?”
- ♦ What can be done with the information you’ve learned?
- ♦ Apply generalizations to a specific situation.



Science Inquiry Worksheet

Name(s) _____



Experience

Complete an activity that helps you explore and discover new things.

Name the activity _____

Share

What did you observe?

What did you discover?

Process

Design an Experiment



Step 1

Come up with an idea you want to investigate. Write your idea here.

Step 2

Write a question you want to answer or a hypothesis (your prediction of what will happen).

Explain your question or hypothesis (what kind of background information do you need before you start your investigation?).

Step 3

Design a simple investigation to answer your question in Step 2.

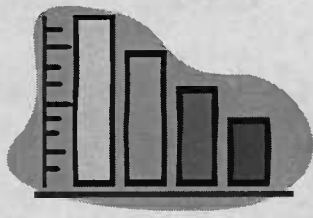
- What kind of data will you need to answer your question or test your hypothesis?
- Decide what must be done to ensure a **fair test** (procedures you use give accurate results) of your question or hypothesis.
- Write the procedures that you decide on.
 1. When designing an experiment, make sure you vary only one thing (one variable) in each test. Everything else must be exactly the same.
 2. Make sure your procedures are organized and logical. Write them down clearly so someone else can follow them.
 3. Make sure your design will give you enough of the right kind of data to answer your question or test your hypothesis.
 4. Confirm the things that are exactly the same in each test (the controls). For example, in the balloon plants experiment, you might keep the same number of seeds or the same amount of soil in each balloon.



Step 4

Carry out your investigation, collecting the data you need to answer your question or test your hypothesis.

Write here your plan for collecting data. Make sure your methods for collecting data are accurate. Do you have enough useful and appropriate data?



Step 5

Organize your data for presentation. Do calculations, make tables and graphs, etc. so that others can use them to look for answers.

(Organize your data here for your presentation.)

Generalize

Analyze and Interpret the Results

Explain the results of your investigation.

Answer your question or describe the results of the test of your hypothesis. Use your data and your science knowledge to support your conclusions.

Explain the limitations of your investigation, and evaluate how well the investigation went. Include suggestions for improving or extending the investigation.

Apply

From what you learned by designing and carrying out this scientific experiment, how can you help your school create a better wildlife habitat?

Training Sign-in Sheet



4-H Wildlife Stewards Training

Location _____

Date _____

Name _____

E-mail

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Volunteer Log Sheet, page 1



A Master Science Educators program of OSU Extension

Volunteer Log Sheet

Name (printed) _____

Signature _____

Phone _____

Check appropriate period

Due ____ Jan 15 (Oct 1–Dec 31)

____ Jun 15 (Jan 1–June 15)

____ Oct 15 (June 16–Sep 30)

Check all that apply

School year	Plan	Plant	Maintenance	Teach	Share	Celebrate	Other	School/Community	Hours earned	Estimated # public contacts	Mileage (for tax purposes only)
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Jan											
Feb											
Mar											
Apr											
May											
June											

Volunteer Log Sheet, page 2

Payback Hours Policy

4-H Wildlife Stewards are required to give 50 hours of service over a 1-year period.

TIME SHEETS ARE DUE THREE TIMES A YEAR. See due dates in the upper right-hand corner on the other side of this sheet.

For each month listed:

1. Check off all boxes that apply to the work you accomplished during the month.
2. Enter the number of hours to the nearest quarter hour ($\frac{1}{4} = 0.25$; $\frac{1}{2} = 0.5$; $\frac{3}{4} = 0.75$)
3. Record how many people you helped or contacted.
4. Add any comments you wish to make below.
5. Return this form to the 4-H Wildlife Stewards office at:

4-H Wildlife Stewards Program
OSU Extension Service
3421 SE Salmon
Portland, OR 97214

ADDITIONAL COMMENTS, SUCCESS STORIES, SUGGESTIONS, ETC.

**Thank you for your continued support and commitment
to the 4-H Wildlife Stewards Program!**



www.wildlifestewards.4h.oregonstate.edu

An OSU Extension 4-H Master Science Educators Program

Oregon State University Extension Service

4-H Volunteer Service Application

Personal Information

Legal Name: _____
(Last) (First) (Middle)

Address: _____
City State Zip

Length of time at above address: _____

Home Phone: _____ Work Phone: _____ E-Mail: _____

Name of nearest elementary school: _____

Occupation: _____ Employer: _____

Do you have special needs for assistance in this application process: _____

Education, Training, Experience

If a student, school attending: _____

Education and/or special training: _____

Languages spoken (other than English): _____

Special skills, interests and/or hobbies: _____

Have you had CPR training? (when): _____ Have you had First Aid training? (when): _____

Background in 4-H and Other Youth Programs

Have you been a 4-H leader before? Yes: ____ No: ____ If yes, where and how long? _____

Are you a 4-H alumni? Yes: ____ No: ____ If yes, which state/county? _____

Experience in other youth programs: _____

Memberships in other organizations: _____

References (employer, minister, etc. - not family members/relatives) - Please include complete mailing address.

1. Name: _____ Home Phone: _____ Work Phone: _____
Address: _____
City _____ State _____ Zip _____

2. Name: _____ Home Phone: _____ Work Phone: _____
Address: _____
City _____ State _____ Zip _____

3. Name: _____ Home Phone: _____ Work Phone: _____
Address: _____
City _____ State _____ Zip _____

Please complete other side ➡

Adult Volunteer Expectations

The Oregon State University Extension Service strives to provide quality leadership for youth participating in 4-H programs. The opportunity to work with youth is a privileged position of trust that should be held only by those who are willing to demonstrate behaviors that fulfill this trust. The following behavior expectations are provided for volunteers working in the OSU Extension Service 4-H Youth Development Program.

1. Treat others in a courteous, respectful manner demonstrating behaviors appropriate to a positive role model for youth.
2. Abide by policies and guidelines of the Oregon State University Extension Service state and county 4-H programs.
3. Obey all laws of the locality, state, and nation, including those related to use of illegal substances, or use of firearms.
4. Make all reasonable effort to assure that 4-H youth programs are accessible without regard to race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status.
5. Recognize that verbal, sexual, physical abuse, and/or neglect of youth is unacceptable either within or outside the 4-H Youth Development Program. Report suspected abuse.
6. Treat animals humanely and teach 4-H youth to provide appropriate animal care.
7. Operate machinery, vehicles, and other equipment in a safe and responsible manner, and only with a valid operator's license and the legally required insurance coverage.
8. Handle fund raising and finances in an ethical manner.
9. Do not consume alcohol while responsible for youth in 4-H activities nor allow 4-H youth participants under your supervision to consume alcohol or illegal substances.

Why are you interested in a 4-H volunteer position? _____

Please read the following before signing:

- I am aware of, or willing to learn and accept the basic philosophy and objectives of the 4-H Youth Development Program.
- I have read, understand and agree to the OSU Extension Service 4-H Adult Volunteer Expectations.
- I understand that the information I have provided may be verified by contacting persons or organizations identified in this application.
- I affirm that the information given in this application is true. If appointed as a volunteer, I agree to abide by the expectations of the Extension Service and to fulfill the volunteer responsibilities to the best of my ability.
- As part of the screening process to become a volunteer with the Oregon 4-H Youth Development Program, I understand that this volunteer service position is subject to the successful completion of background checks, which may include credit, criminal, and motor vehicle history background checks.
- I understand that the OSU Extension Service has the right to determine individual suitability in the 4-H Youth Development Program and as a volunteer I will comply with those decisions.

Signature of Applicant _____ Date _____ Oregon Drivers License # _____

For Extension office use only

Date Received: _____ Application Reviewed By: _____
 Status of References: _____
 Background History Check Form: Date sent to OSU: _____ OSU Response Date: _____
 Leader Education (orientation/training): _____
 Comments: _____
 _____ Approved: _____
 _____ Date

9/2005

4-H Wildlife Stewards Volunteer Position Description

DESCRIPTION

4-H Wildlife Stewards are assigned in teams of two to a 4-H Wildlife Stewards Member School to assist teachers and students in the development and use of wildlife habitats on school grounds. The schools have been screened and approved as partner schools with the 4-H Wildlife Stewards Program. A 4-H Wildlife Steward may be asked to:

- Help map and inventory the wildlife Habitat Education Site on school grounds
- Help students research, select, and order plants and seed for the Habitat
- Work with the landscape architect to help involve students in designing the Habitat
- Assist teachers in presenting lessons and activities in or about the Habitat
- Participate in 4-H Wildlife Stewards Habitat Team meetings
- Work with students to help them learn gardening skills and gain an appreciation for nature
- Help students keep portfolios of their work, including reading logs and arts-and-crafts projects related to the Habitat
- Help document the schoolyard Habitat project by keeping journals and taking notes and/or photographs, in order to provide documentation to their school and the 4-H Wildlife Stewards Program
- Keep in contact with and submit biannual reports to the 4-H Wildlife Stewards Volunteer Coordinator
- More as needed

QUALIFICATIONS

- 4-H Wildlife Stewards training
- Previous work with children in schools or other meetings as a parent, volunteer, camp counselor, or teacher
- Willingness to provide support for teachers in a classroom setting
- Good people skills
- Interest in gardening, wildlife, and/or natural history
- Well organized with the ability to work in a team setting
- Active interest in natural resource issues and in helping children and adults contribute to a healthy, sustainable environment beginning in their schools and their communities

TERMS

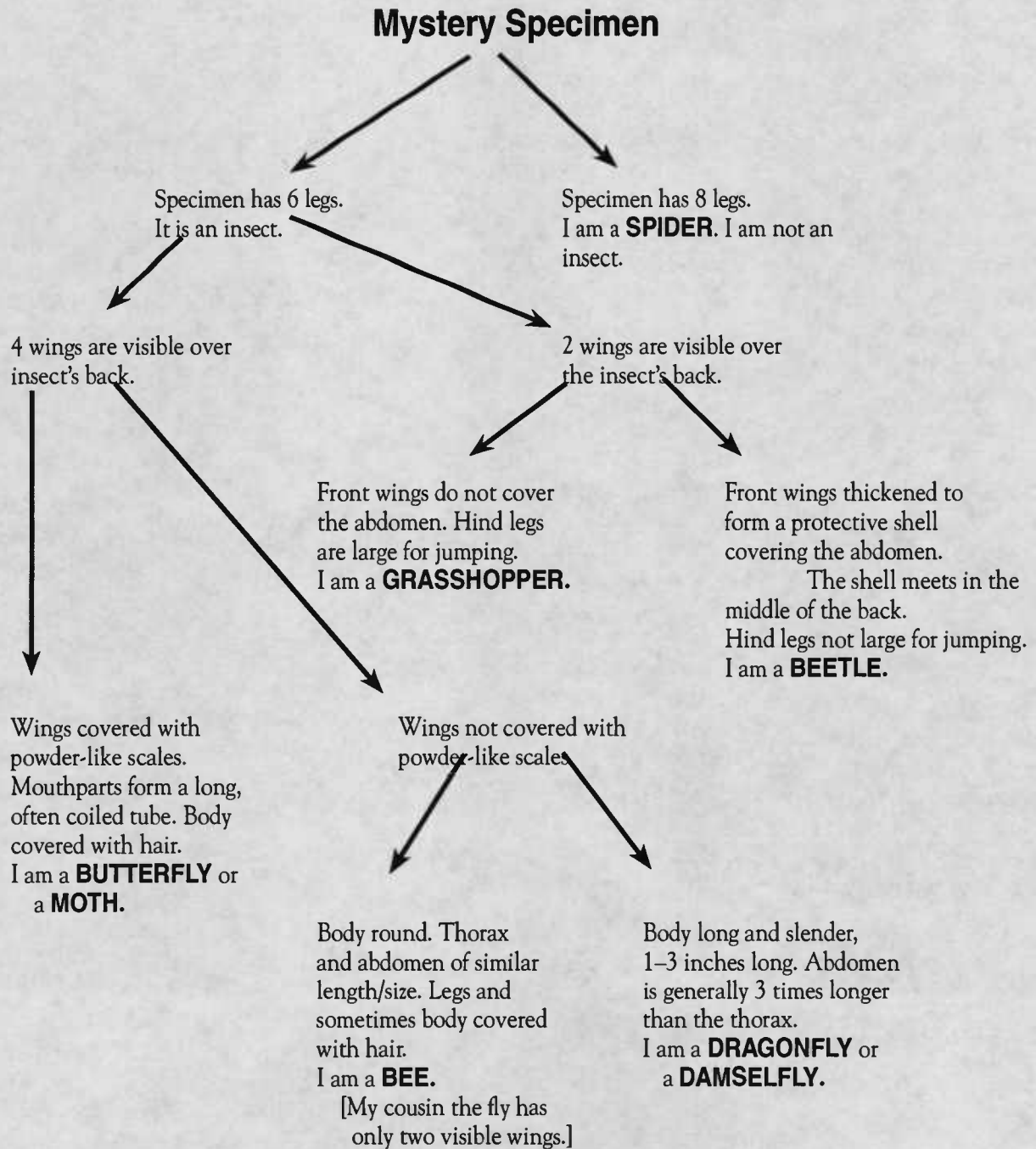
Able to commit a minimum of 50 hours within a 1-year period.

THIS IS A VOLUNTEER OPPORTUNITY.



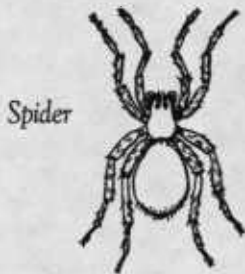
Day Two—Creating Your Habitat

A Key to Insects



Arthropods—Common Classes and Their Characteristics

Arachnida (uh-rack' nida)—spiders, mites, ticks, chiggers, scorpions. Two body regions (head and thorax combined into one region). No antennae. Four pairs of legs.



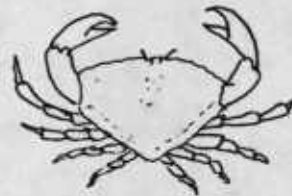
Spider

Diplopoda (Dip' low-poda)—Generally rounded shape, many-segmented, long-bodied animals. One pair of short antennae. Two pairs of legs to each body segment. When disturbed, they coil up.

Millipede



Crustacea (crus-tay' sea-uh)—crayfish, crab, shrimp, sowbugs, etc. Head and thorax combined into one part called a cephalothorax. Many with two pairs of antennae. At least five pairs of legs. Nearly all have aquatic respiration.



Crab



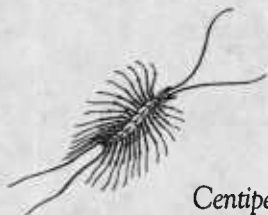
Scorpion

Hexapoda or *Insecta*—ants, bees, grasshoppers, butterflies, etc. Body divided into three general regions (head, thorax, and abdomen). Three pairs of legs. One pair of antennae. Usually adults have two pairs of wings, but some groups have none.

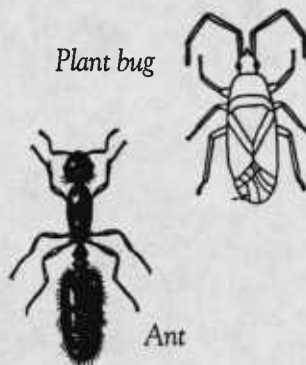


Pillbug

Chilopoda (ki' low-poda)—centipedes. Generally, flattened bodies. Many-segmented, long-bodied animals. One pair of moderately long antennae. One pair of legs to each body segment. Swift running, usually soil-inhabiting.



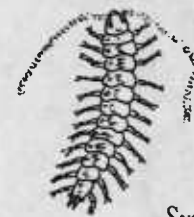
Centipede



Plant bug

Ant

Symphyla (sim-phy'la)—Twelve pairs of legs with two claws at tip of each leg.



Symphylan

From 4-H Entomology Manual (4-H 3221)
Oregon State University Extension Service

Identifying Key Features of Common Insect Orders

Order _____ meaning... _____

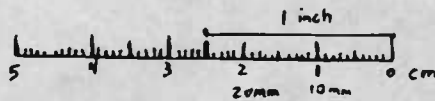
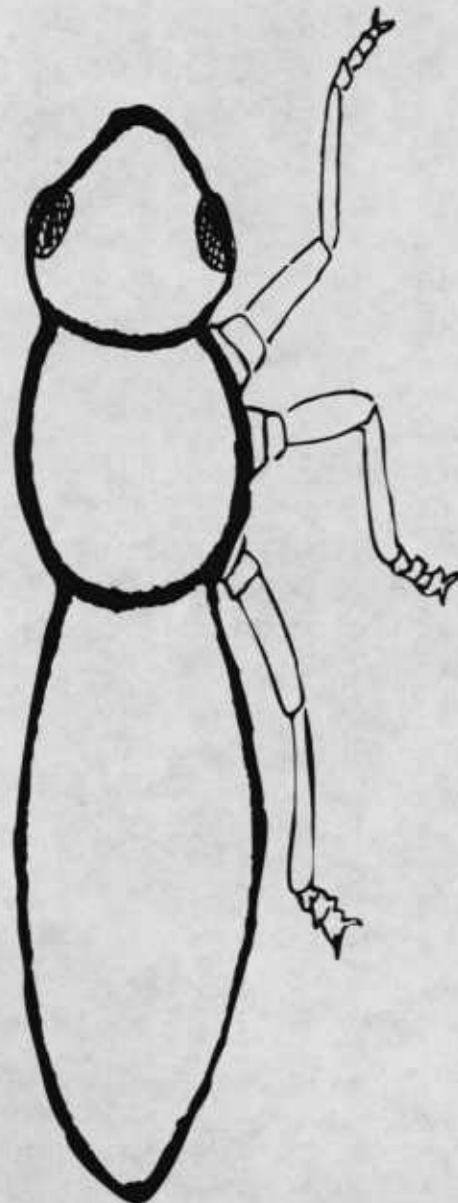
Type of insect(s) _____

Wings:

Mouthpart type:

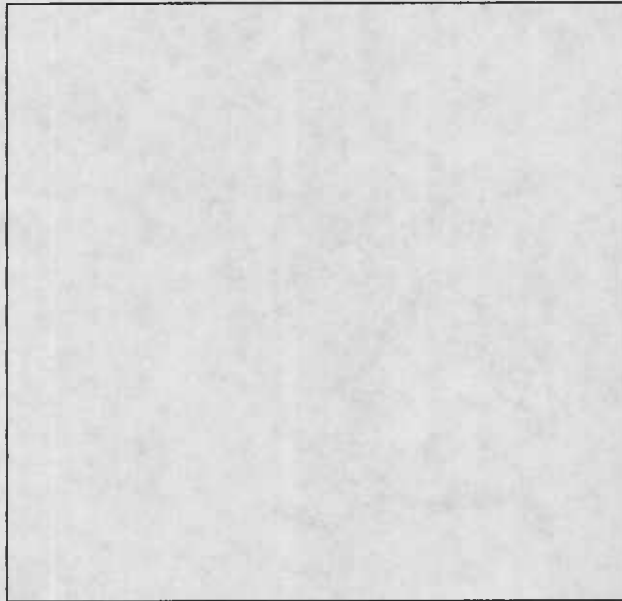
Other key features/habits/damage:

Metamorphosis:



Prose from Nature

Name _____



Plant Drawing

Descriptive Phrases

On the lines below, please write a poem or story of the plant using the descriptive phrases you wrote while observing it.

Sample Site Map



Sample Wildlife Management Resource List, page 1 of 2

Landscaping for Wildlife - Resources

Nancy Allen, Department of Fisheries & Wildlife, Oregon State University, 104 Nash Hall, Corvallis, OR 97331, 541-737-1941, nancy.allen@orst.edu

Landscaping and garden books

- Landscaping for Wildlife in the Pacific Northwest / by Russell Link.
- Naturescaping / by Oregon Department of Fish and Wildlife.
- American Wildlife and Plants: A Guide to Wildlife Food / by Martin, Nelson, Zim
- The Wild Lawn Handbook: Alternatives to the Traditional Front Lawn / by Stevie Daniels.
- Gardening with Native Plants of the Pacific Northwest : an illustrated guide / by Arthur R. Kruckeberg.

Guide books

- National Geographic Field Guide to the Birds of North America.
- Birds of Oregon Field Guide / by Stan Tekiela
- The Birder's Handbook: A field guide to the natural history of North American birds / by Ehrlich, Dobkin, and Wheye.
- The Audubon Society Field Guide to North American Wildflowers.
- Mammals of the Pacific Northwest, From the Coast to the High Cascades / by Chris Maser.
- Animal Tracks of Washington and Oregon / by Ian Sheldon
- The Guide to Butterflies of Oregon and Washington / by William Neill.
- Seattle Audubon Society, The Trailside Series. Reptiles of Washington and Oregon.
- Seattle Audubon Society, The Trailside Series. Amphibians of Washington and Oregon.
- Atlas of Oregon Wildlife / by Csuti, et. al.
- Trees to Know in Oregon / by Oregon State University Extension Service and Oregon Department of Forestry.
- Plants of the Pacific Northwest Coast, Washington, Oregon, British Columbia & Alaska / by Pojar, Mackinnon.

Co-existing with wildlife books

- Deer Proofing your yard and garden / by Rhonda Massingham Hart
- Living With Wildlife / a Sierra Club book
- Wild Neighbors – The humane approach to living with wildlife / by John Hadidian

Sample Wildlife Management Resource List, page 2 of 2

Websites

Landscaping/Wildlife

<http://eesc.orst.edu> Extension Service at OSU for publications
EC 1440 Deer-resistant plants

<http://birding.miningco.com/msub12> Backyard Birds, Birdhouses, and Feeders

www.batcon.org Bat Conservation International

www.fb-net.org/birdhouses.htm Dimensions for Birdhouses

www.desert.net/museum/fp Forgotten Pollinators Campaign

<http://www.npsoregon.org/> Native Plant Society of Oregon

<http://tardigrade.org/natives/nurseries.html> Pacific Northwest native plant sources

www.arboday.org National Arbor Day Foundation

www.audubon.org National Audubon Society

<http://www.nwf.org/backyardwildlifehabitat/> National Wildlife Federation, Backyard Wildlife Habitat Program

<http://www.wildlifehc.org/managementtools/backyard.cfm> Wildlife Habitat Council Backyard Conservation

www.aphis.usda.gov/ws/pubs USDA Animal and Plant Health Inspection Service fact sheets

www.reeusda.gov USDA Cooperative State Research, Education, and Extension Service

Wildlife damage control

<http://wildlifedamage.unl.edu/> University of Nebraska, Wildlife Damage Management

www.aphis.usda.gov/ws USDA Wildlife Services
6135 NE 80th Suite A-8, Portland, OR 97218, Phone: 503-326-2346

Sites with landowner assistance programs

www.erols.com/wetlandg/ National Wetlands Conservation Alliance

<http://www.or.nrcs.usda.gov/> Oregon Natural Resources Conservation Service

www.fws.gov U.S. Fish and Wildlife Agency homepages

<http://www.dfw.state.or.us/> Oregon Department of Fish and Wildlife

<http://www.odf.state.or.us> Oregon Department of Forestry

www.stateforesters.org State Forestry homepages

www.fs.fed.us USDA Forest Service

www.epa.gov/owow U.S. Environmental Protection Agency

Wildlife Habitat Evaluation Worksheet

Nancy Allen, Fisheries and Wildlife Department, Oregon State University, 2002

Name _____ Species group _____

Mark areas with an X where you think you need more information.

1. Evaluate current habitat conditions for your species group.

a. What food sources exist?



b. Is there water on the site?

c. What could be used for cover?

d. Space/carrying capacity. Approximately how many animals will this site support for all of their habitat needs?

2. Diversity rating

Answer questions and rate them H=High, M=Medium, or L=Low based on optimum habitat for your species group.

a. Species diversity. How many different species of vegetation are there?



b. Structural diversity

Vertical. How many layers of vegetation do you see? Describe the layers.

Horizontal. Are there different stages of succession occurring on this site? Describe them.

3. Are there corridors for your species groups to travel to and from the site?

4. What might be some concerns for people or your species group at this site?
(safety, disturbance factors, damage, space)

5. What should be left alone?

6. What should be removed?

7. What could be added?



Day Three—Project Sustainability

Adopt a Tree Certificate and Worksheet, page 1

Adopt a Tree Certificate

Official Tree Name _____

Nickname _____

Birthplace _____

Circumference _____ Height _____ Age _____

Identifying characteristics _____

Adopted by _____ Date _____

One especially interesting thing about my tree is:



Place Leaf Rubbing in the Space Above

Develop a hypothesis or a question you want to answer based on what you have already experienced and observed about your tree.

Come up with an idea you want to investigate. Write your idea here:

Adopt a Tree Certificate and Worksheet, page 2

Write a question you want to answer or a hypothesis (your prediction of what will occur) here:

Explain your question or hypothesis (what kind of background information do you need before you start your investigation?).

Design a simple investigation to answer your question above.

What kind of data will you need to answer your question or test your hypothesis?

Decide what must be done to ensure a **fair test** (procedures you use give accurate results) of your question or hypothesis.

Write the procedures that you decide on.

1. When designing an experiment, make sure you vary only one thing (one variable) in each test. Everything else must be exactly the same.
2. Make sure your procedures are organized and logical. Write them down clearly so someone else can follow them.
3. Make sure your design will give you enough of the right kind of data to answer your question or test your hypothesis.
4. Confirm the things that are exactly the same in each test (the controls).

Bulletin Board Sample Headings, page 1 of 3



Protected Under
18 U.S.C. 707



Extension Service

Oregon State
UNIVERSITY



Extension
Service



Bringing
Science
& Nature
Together

ONE SCHOOL AT A TIME



Bulletin Board Sample Headings, page 2 of 3

Habitat Dedication May 2007

Preparing the Site April 2007



Bulletin Board Sample Headings, page 3 of 3

Johnson Elementary

4-H Wildlife Habitat

Did you know?

FOR MORE INFORMATION

CLASSROOM ACTIVITIES

UPCOMING EVENTS

Student Work

PLANT OF THE MONTH

WILDLIFE OF THE MONTH



4-H Wildlife Stewards

CERTIFICATE OF COMPLETION

This certifies that:

Has completed 24 hours of instruction on creating and sustaining wildlife Habitat Education Sites on school grounds.

Training date

Training site location

4-H Wildlife Stewards Project Director

Dichotomous Key

Page 1 of 5

To Use the Keys

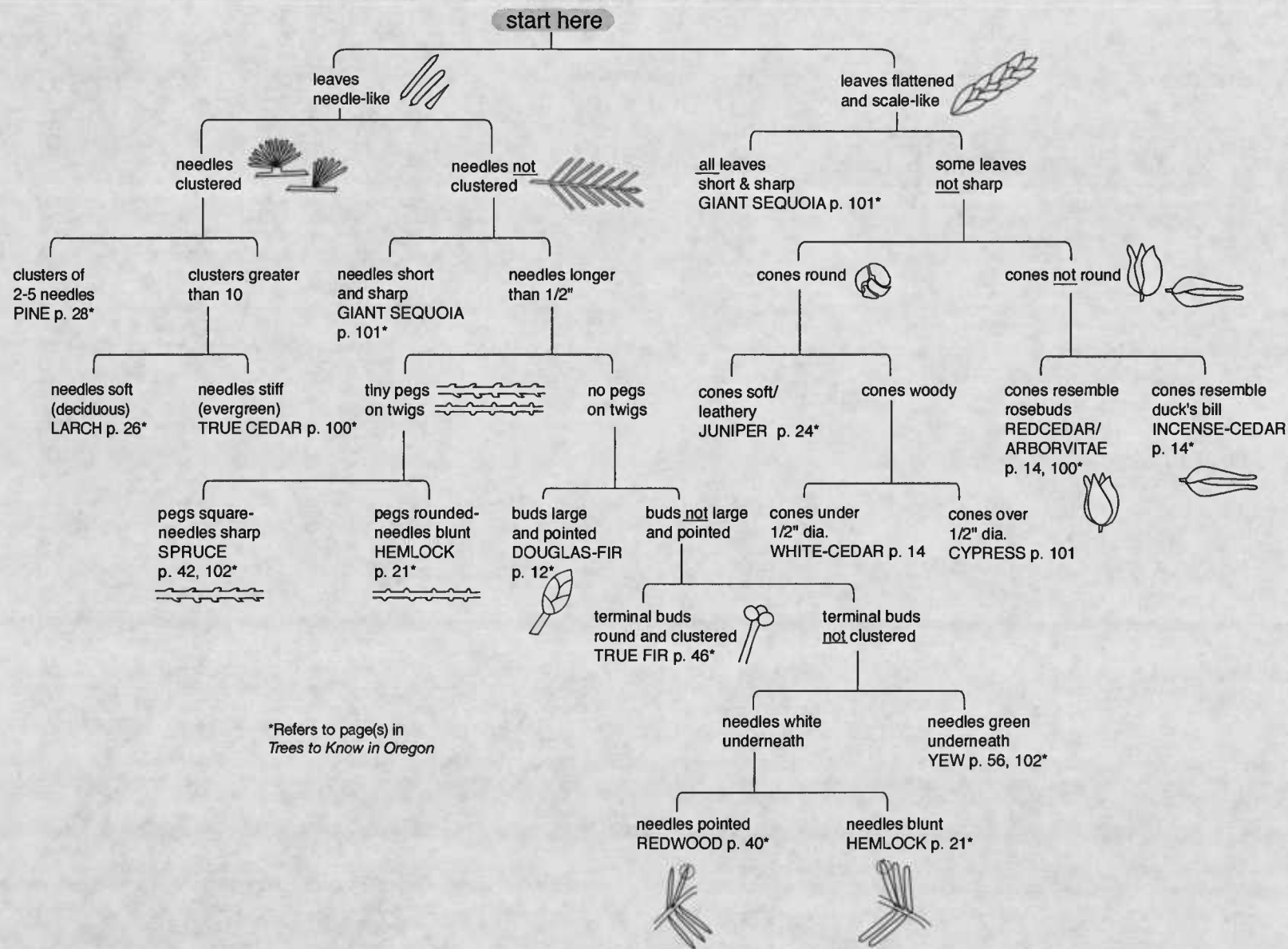
1. Start at the top of the key. Then read each of the two statements listed directly below the starting point.
2. Decide which of the two statements better describes the plant you're trying to identify. Then read the two statements directly under that box.
3. Continue this process until you've identified a single group of trees (called a genus).
Remember, identifying trees is a bit like detective work—sometimes you need to follow false leads to discover the truth eventually.



From *Trees to Know in Oregon*
(EC 1450), revised June 2003
Oregon State University Extension Service

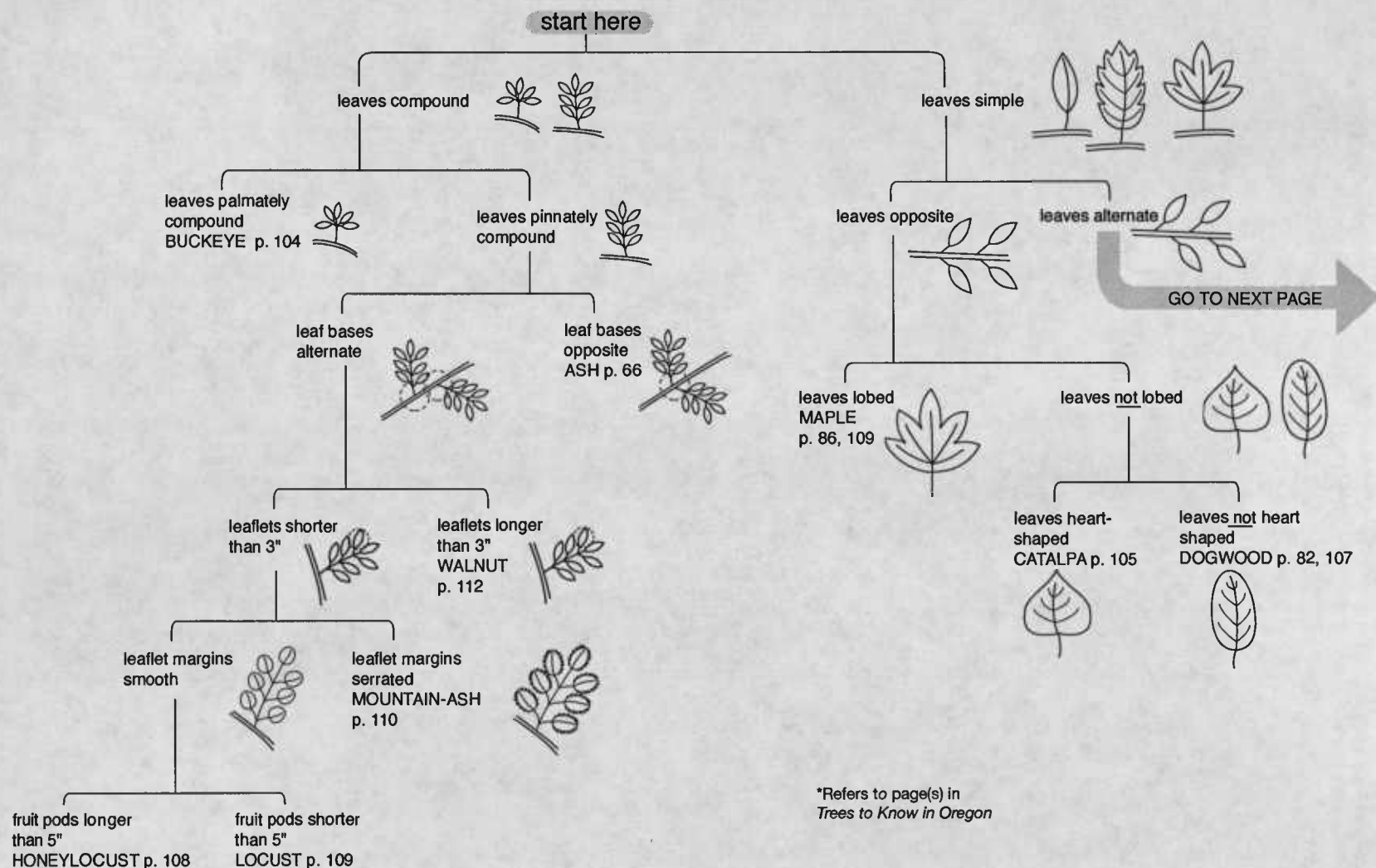


COMMON CONIFERS OF OREGON

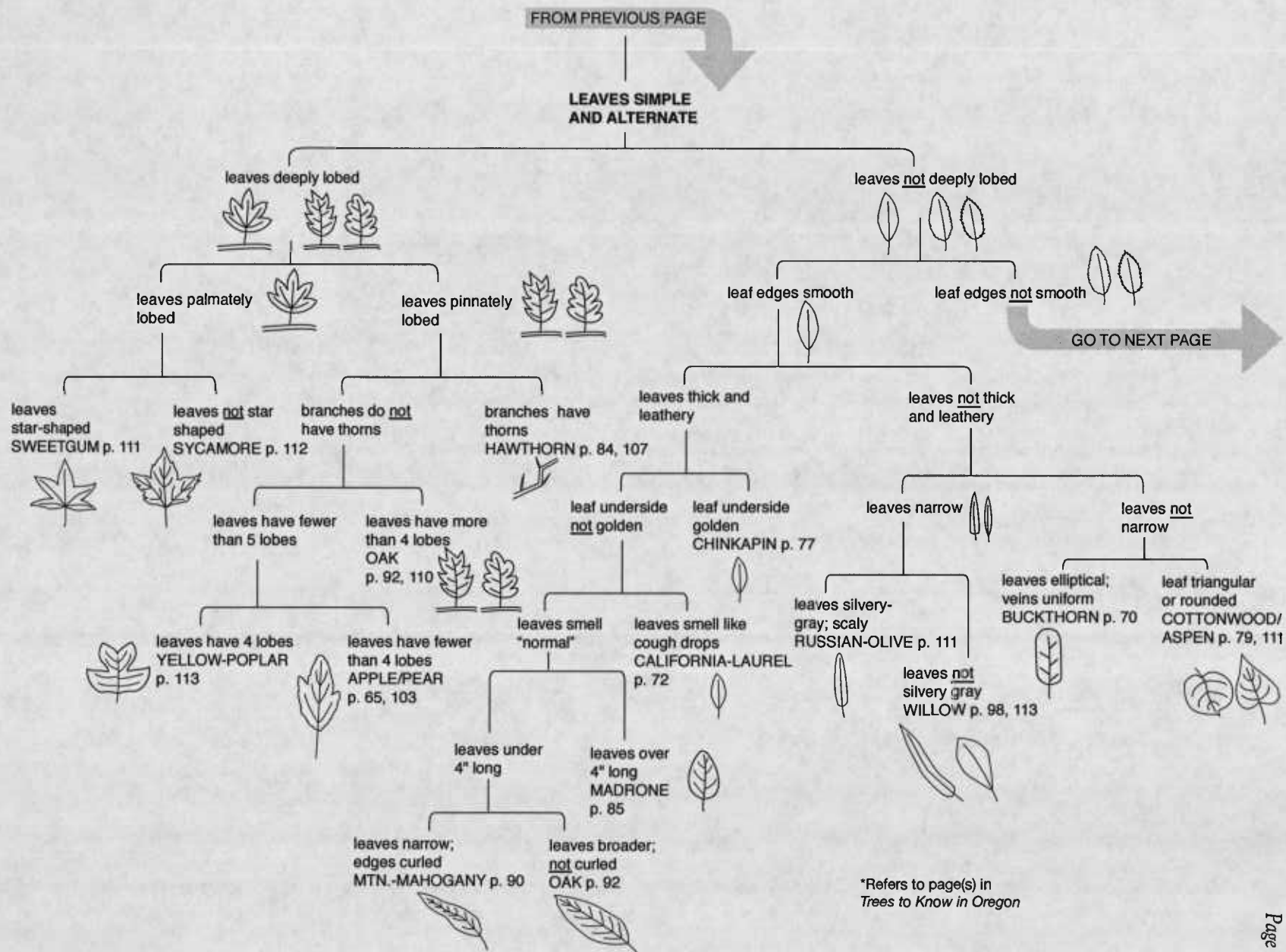


*Refers to page(s) in
Trees to Know in Oregon

COMMON BROADLEAVED TREES OF OREGON

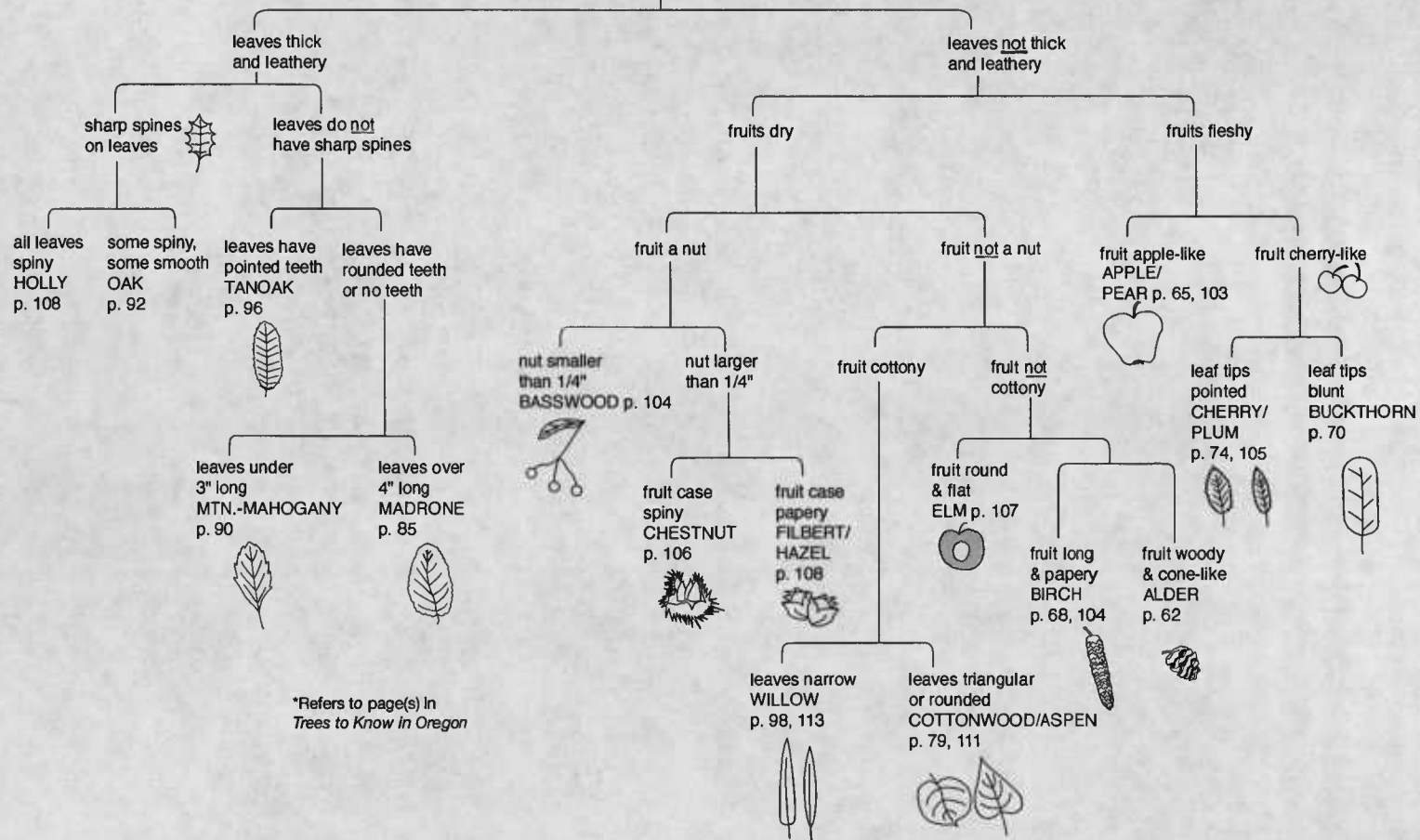


*Refers to page(s) in
Trees to Know in Oregon



FROM PREVIOUS PAGE

LEAVES SIMPLE,
ALTERNATE, NOT LOBED
AND MARGINS NOT SMOOTH



Promoting the 4-H Wildlife Stewards Program— Media Basics



Print

Identify your readers: Newspapers stories state just the facts. Feature stories may effervesce with adjectives.

“Journalism 101”—The 5 “W”s and the “H”

Who—Eight members of the 4-H Wildlife Stewards Program at Harrisburg School

What—Will build four raised beds with 2 x 10 pressure-treated lumber, and then plant native plants in them

Where—Their Habitat Education Site is on the school playground at Territorial Road and 35th Street, east of downtown Harrisburg.

When—Lumber was delivered in January. Beds will be filled with garden soil and planted in the spring, when weather allows.

Why—Raised beds will allow students to grow plants that attract wildlife.

How—The project is made possible by community support. The lumber was donated and delivered to the school. Premium gardening soil will be provided by a grant from the Joan Engeldinger Philanthropic Trust.

Radio

Speak slowly in a conversational tone.

Plan ahead what to say. Practice it aloud.

Keep sentences short and to the point.

Don't guess. It's better to say you don't know.

Women: project and deepen your voice.

Men: enunciate and express enthusiasm.

Deliver your message, even if you're not asked.



Example for Radio (Female)

Interviewer: Tell us about the 4-H Wildlife Stewards work party coming up.

Example 1. Speak in a high voice, too soft and fast, like you're nervous. Slump, wring your hands.

Oh well uh, it's gonna be Saturday, March 8th I think and we sure hope everybody comes out to help us because uh we don't have enough people helping you know and it's wearing us out to only be the same ones all

the time. Wait, uh, now that I think about it, it might be the weekend after that. Er sometime around then. But everybody needs to come and bring your trucks and everything oh and we're gonna have cookies and stuff... *(interviewer interrupts here)*

Interviewer: Thank you, (name). But I see that March 8th is a Friday. Is the work day on March 9th then?

Example 2: Totally change persona and stance. Stand erect and confident. Speak deeper, more slowly, with a more authoritative voice.

The work party will be on Saturday, March 9th, beginning at 9 am. We'll meet in the parking lot at Foster School. Bring gloves, clippers, and a lunch. Beer will be provided.

Television

Relax. Visualize yourself talking with a friend.

Hold something.

Slow down both speech and movement.

Buy a copy of the segment to use as a promotional tool for your program.



Example for TV (Male)

Interviewer: "Tell us about your Wildlife Stewards activity."

Example 1. Speak in a slow monotone. Stand stiff and expressionless. Hands are limp at your sides.

This is a terribly exciting project that we are all thrilled to be doing. (Pause. Sigh.) I am so excited about working with these kids I can hardly stand it.

Example 2. Be animated. Speak louder, more clearly, and with enthusiasm. Hold a book and gesture with it. Speak genuinely.

This is a very exciting project and we're all thrilled to be part of the Habitat Team. I am sooooo excited about working with these kids and helping them learn and grow!

Promoting the 4-H Wildlife Stewards Program—

What Makes News?

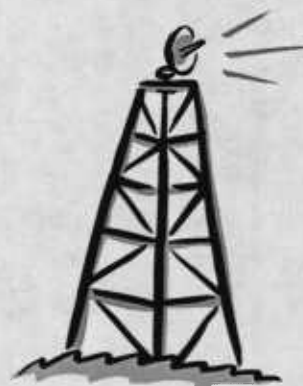
- Develop a relationship with media reporters. Know who to contact.
- Keep telling them what's happening with the Wildlife Habitat. They'll pick newsworthy topics when they need them.

A Picture Is Worth 10,000 Words

Take lots of pictures to get one good one.

Get close to your subjects.

Capture emotion—faces and actions tell a story.



Names Make News

People are motivated by recognition.

Feature local folks.

Politicians hold the pursestrings to schools—give them credit when they participate.

The “Gee Whiz!” Factor

Timely statistics speak:

In Oregon in 2005, over 56,000 4-H members participated in more than 77,000 projects. They were led by 8,000 adult volunteers who contributed more than \$19 million in their time's value.

Interesting, unusual stories attract readers (and editors).

Ideas contrary to popular thought—

4-H Wildlife Stewards examples:

- Kids and adults working together
- Protecting the environment
- Caring for the future
- Attitudes for the long term—not just “me now”

Disabled participants

Intergenerational partnerships

A service dog in the Habitat

Businesses committed to helping community

Volunteers or staff (such as Extension agents)

Sample 4-H Junior Wildlife Stewards Summit flyer

Third Annual 4-H Wildlife Stewards Member School Summit

February 24, 2006

*Open to
the public*



*Student displays
& activities*

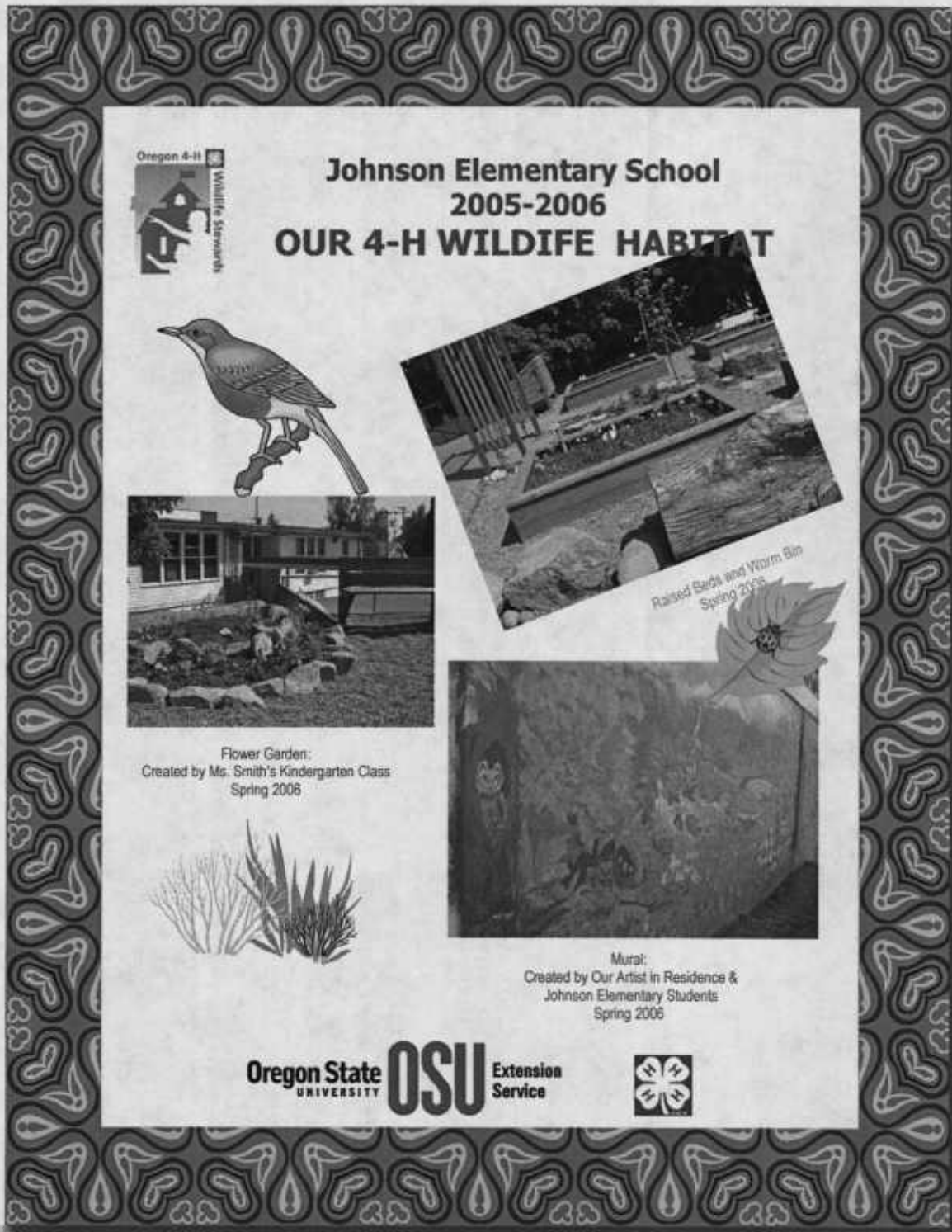
With the
Portland Home & Garden Show
At the
EXPO Center

For more information, contact:
Sally Yackley
4-H Wildlife Stewards Program
(503) 916-6074
wildlifestewards@oregonstate.edu



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Sample Project Notebook, page 1 of 4



Sample Project Notebook, page 2 of 4



Contact Information:

4-H Wildlife Stewards Office: (503)-916-6075
(Maureen Hosty 4-H Extension Faculty)

4-H Wildlife Steward, Susan Smith: (503)-555-5555

Master Gardener, Sally Jones: (503)-555-5551

Teacher, Mrs. Jordan: (503)-555-5552

Local Police (vandalism): (503)-555-5553

Principal, Mrs. Cooper: (503)-555-5554

Master Gardener Hotline: (503)-555-5556

Sample Project Notebook, page 3 of 4



FOR IMMEDIATE RELEASE

May 28, 2006

Contact: Susan E. Wieske 503-916-6074**LOCAL SCHOOL CELEBRATES ACHIEVEMENT
FOR SCHOOL HABITAT EDUCATION SITE PROJECT**

Johnson Elementary School in Pricedale, Oregon has achieved Level Three Certification through the Oregon State University Extension 4-H Wildlife Stewards program. This is the second school in the state to achieve this high of a level. Special acknowledgment should be given to 4-H Wildlife Stewards, Lisa Laurelwood, Melissa Wittman, Sally Yearling, and Jennifer Shadows. Their work and dedication to creating a sustainable Habitat Education Site on the school grounds has been exemplary.

Susan Reynolds, principal of the school, has been incredibly enthusiastic and supportive. She is committed to environmental education and serves on the 4-H Wildlife Stewards national board. Students, teachers, administration, parent and community volunteers have been encouraged to take part in all aspects of the project. Every teacher uses the Habitat Education Site for hands-on activities and science investigations. The outdoor classroom has a variety of features including a bird and butterfly garden, a Lewis and Clark garden, birdhouse, benches, a worm bin and wildlife mural. The wildlife area that has been created is a model for environmental rehabilitation and community building.

Completion of Level Three entitles every participating student a Junior 4-H Wildlife Steward Certificate. The school will be receiving a Level Three Plaque and a \$150.00 mini-grant for science supplies. The mini-grant can also help the school to begin to attain Level Four: The Civic Action Stage.

4-H Wildlife Stewards is a Master Science Educators Program of OSU Extension through funding of the National Science Foundation. Contact the 4-H Wildlife Stewards office at 503-916-6074 to receive more information about this innovative program.

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Sample Project Notebook, page 4 of 4



Johnson Elementary
Parent Recruitment Article for February's
2006 School Newsletter

4-H Habitat Team Members Needed

This is a chance for you to make a difference in the community. This is an exciting opportunity! Come to our next meeting, this Thursday from 3:30-4:30 in the library. We will have some light refreshments for you. Two of our students on the Habitat Team, will give you a tour of our habitat area. We will also discuss how you would like to be involved and how much time you can give to this project. If you have any questions call 4-H Wildlife Steward, Susan Smith at (503)-555-5555.

NOTE: 9 NEW PEOPLE SHOWED UP!!!





4-H WILDLIFE STEWARDS TRAINING EVALUATION

Dear 4-H Wildlife Stewards Trainee:

As part of this project, we are interested in your evaluation of the training. Your participation in this survey is voluntary, and your answers are anonymous. You may choose not to answer any or all of the questions without any impact on your acceptance as a 4-H Wildlife Steward.

	How important did you think this topic was BEFORE this training?					How important do you think this topic is AFTER this training?				
	Important			Not really important		Important			Not really important	
1. The Science Inquiry Model	1	2	3	4	5	1	2	3	4	5
2. Understanding School District Guidelines	1	2	3	4	5	1	2	3	4	5
3. Understanding the Keys to Success	1	2	3	4	5	1	2	3	4	5
4. How to Promote Your Program	1	2	3	4	5	1	2	3	4	5
5. Principles of Wildlife Management	1	2	3	4	5	1	2	3	4	5
6. 4-H Wildlife Habitat Requirements	1	2	3	4	5	1	2	3	4	5
7. Native Plants for the Habitat	1	2	3	4	5	1	2	3	4	5
8. Mapping and Taking Inventory of Your Site	1	2	3	4	5	1	2	3	4	5
9. Documenting Your Success	1	2	3	4	5	1	2	3	4	5
10. Working with Youth: Rights and Responsibilities	1	2	3	4	5	1	2	3	4	5
11. Science Investigations in the Habitat	1	2	3	4	5	1	2	3	4	5
12. The School Advancement Program	1	2	3	4	5	1	2	3	4	5
13. Developing Your Project Notebook	1	2	3	4	5	1	2	3	4	5
14. Grant Writing for Your Project	1	2	3	4	5	1	2	3	4	5
15. Summer Maintenance	1	2	3	4	5	1	2	3	4	5
16. Tips on Preventing Vandalism	1	2	3	4	5	1	2	3	4	5
17. Bulletin Boards and Student Journals	1	2	3	4	5	1	2	3	4	5

Please rate the following regarding the training team, using the following scale:

1=Extremely poor 2=Below average 3=Average 4=Above average 5=Excellent

	1	2	3	4	5
18. Overall teaching ability of the team					
19. Team's ability to present the material in a clear and organized manner					
20. Team's knowledge of the material					

(Please fill out the back page too!)

Please rate your response to the questions listed below using the following scale:

1=Not competent at all 2=Somewhat competent 3=Competent 4=Very competent 5=Really competent!

How competent do you feel:	1	2	3	4	5
21. To be a 4-H Wildlife Steward?					
22. To work with K-8 children as an informal science educator?					
23. To help youth understand natural resource concepts?					
24. To know who to ask should questions or concerns arise while you are a 4-H Wildlife Steward?					
25. To find resources to assist you in developing a 4-H Wildlife Stewards Habitat Education Site?					
26. To work with a team in a school setting to design and implement a Habitat Education Site?					
27. To design and help implement science inquiry lessons and activities for children through the 4-H Wildlife Stewards Program?					

28. How do you rate the overall length of the training?

☐ Too long ☐ Too short ☐ About right

What is the main reason you chose to attend this training?

- ☐ To support my local school in difficult financial times
☐ To spend more time with my child at his/her school
☐ To support stronger science education in the schools
☐ To get more involved giving to my community
☐ I was told to attend.
☐ Other _____

29. How do you rate the overall quality of the training?

☐ Very poor ☐ Poor ☐ Good ☐ Excellent

30. How well were your expectations met?

☐ Not at all ☐ Somewhat ☐ Well ☐ Very well

31. What training and/or support do you still need that would help prepare you for your role as a 4-H Wildlife Steward?

32. What did you enjoy most about this training?

33. What did you enjoy least?

34. What is the most important skill or idea you'll take home from this training?

35. How will you use that skill or idea?

36. Are you a teacher? ☐ No ☐ Yes If yes, please list the grade you teach: _____

If no, please check the box that best matches your intended role as a 4-H Wildlife Steward:

☐ Volunteer ☐ Parent volunteer ☐ Americorps volunteer ☐ Other _____

37. Do you have any other comments or suggestions?

Thanks for your input!

Working With Youth of Different Ages

Not all people develop in the same way at the same age, but there are certain patterns to youth development that are commonly experienced by most youth.

Grades K-2

Characteristics	Teaching tips
Thinking is in the here and now ("concrete thinkers").	Youth need real experiences to learn.
Attention span is about 20 to 30 minutes.	Vary the length of activities based on how interested the youth appear.
Begin to develop friendships	Plan activities youth can do in groups rather than individually.
Want to be liked and please adults	Let youth know they have done a good job.
Learn best when physically active	Allow youth to participate in activities where they can be physically active.
Have a special attachment to older youth	Allow youngsters to choose an older youth to be their helper and role model.
Are easily motivated	Use encouragement to keep youth motivated.
Competitive activities are less appropriate.	Plan some cooperative activities.
Differentiation between fantasy and reality can be difficult.	Build in transitions and discussions to help distinguish the imaginary from the real.

Grades 3-5

Characteristics	Teaching Tips
Learn best when physically active	Allow youth to participate in activities in which they can use physical energy.
Have a special attachment to older youth	Allow youngsters to choose an older youth to be their helper and role model.
Are easily motivated	Use encouragement to keep them motivated.
Reading becomes an individual experience.	Allow time for youth to read on their own and think of activities before working with others.
Attention span is about 45 minutes.	Use varied activities to keep them interested.
Acceptance by peer group is important.	Use peer group to recognize good work; e.g., applauding completed activities and avoiding put-downs.
Interests expand from home to neighborhood to community.	Talk to youth about their friends and neighbors and what goes on in their community. Involve them in community service.
Enjoy both cooperation and competition	Plan activities so that sometimes youth work together, sometimes compete with each other.
Show independence by seeking individual attention and sometimes disrupting the group	Involve youth in selecting activities they would like. Give individual attention.
Feelings of competence enhance self-concept.	Provide activities that will let youth feel good about themselves and succeed. Recognize them for their accomplishments.
Show loyalty to members of their own sex and antagonism towards those of the opposite sex	Involve youth in choosing partners for activities or projects.

Reprinted from "Step Up to Leadership Mentor Guides Grades K-5 & 6-12," with permission of the National 4-H Cooperative Curriculum System, Inc. © (2003) 4HCCS.

Working With Youth of Different Ages (continued)

Grades 6–8

Characteristics	Teaching tips
Can take responsibility in planning and evaluating their own work	Give youth responsibility for group activities, including planning, implementing, and evaluating.
Can plan their own social and recreational activity	Provide opportunities for youth to work together. Form committees to plan recreational and social activities.
Can discuss current events, international affairs, and social issues with some help	Use discussion activities and games that encourage awareness of current events and issues.
Want to make decisions but still depend on adult guidelines	Establish guidelines that give parameters for youth to follow.
Gain skills in social relations with peers and adults	Provide activities that foster social interaction with peers and adults.
Peer pressure mounts, first from same sex, then from opposite sex	Use peer pressure to influence positive behavior. Have the group give encouragement to individuals.
Can be quite self-conscious	Avoid asking youth to share their work individually until they feel more comfortable with the group.
Strong emotional attachment to older youth and adults	Encourage youth to participate in activities with older youth and adults.
Choices are often unrealistic	Assist youth in making realistic choices. Review their plans, discuss alternatives, and help them weigh options before making decisions.

Grades 9–12

Characteristics	Teaching tips
Personal philosophy begins to emerge	Choose activities in which youth search for experiences that allow them to identify their own philosophies.
Enjoy discussing world situations as well as personal activities	Encourage discussion of events and feelings.
Abstract thinking and problem solving reach a higher level	Put youth into real-life, problem-solving situations.
Strong desire for status in their peer group	Develop a climate in which youth are encouraged and supported by peers.
High interest in social activity	Encourage youth to plan and carry out their own social activities.
Need freedom from parental control to make decisions	Help youth realize that their decisions have consequences.
Widespread feelings of inferiority and inadequacy	Encourage and help youth to see their positive worth.

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Child Ages and Stages of Development Clues

5-year-olds

- I enjoy activities using hand skills.
- I can sit still for brief periods.
- I enjoy running and doing stunts.
- I am curious about everything.
- I copy adult behavior and act grown up.
- I am aware of rules.

6- to 8-year-olds

- I want to be with people of my own gender.
- I get distracted after half an hour.
- I want to be very active.
- I like to experiment.
- I'm not very coordinated

9- to 11-year-olds

- I've gotta be using up energy!
- I need encouragement to stay motivated.
- I won't focus after half an hour.
- I enjoy cooperation and competition.
- I'll talk back and be rebellious.

12- to 14-year-olds

- I want to plan activities.
- I'm a teenager. I may lack confidence.
- I need to succeed with a task.
- I like to work in groups.
- I'm interested in environmental and social issues.

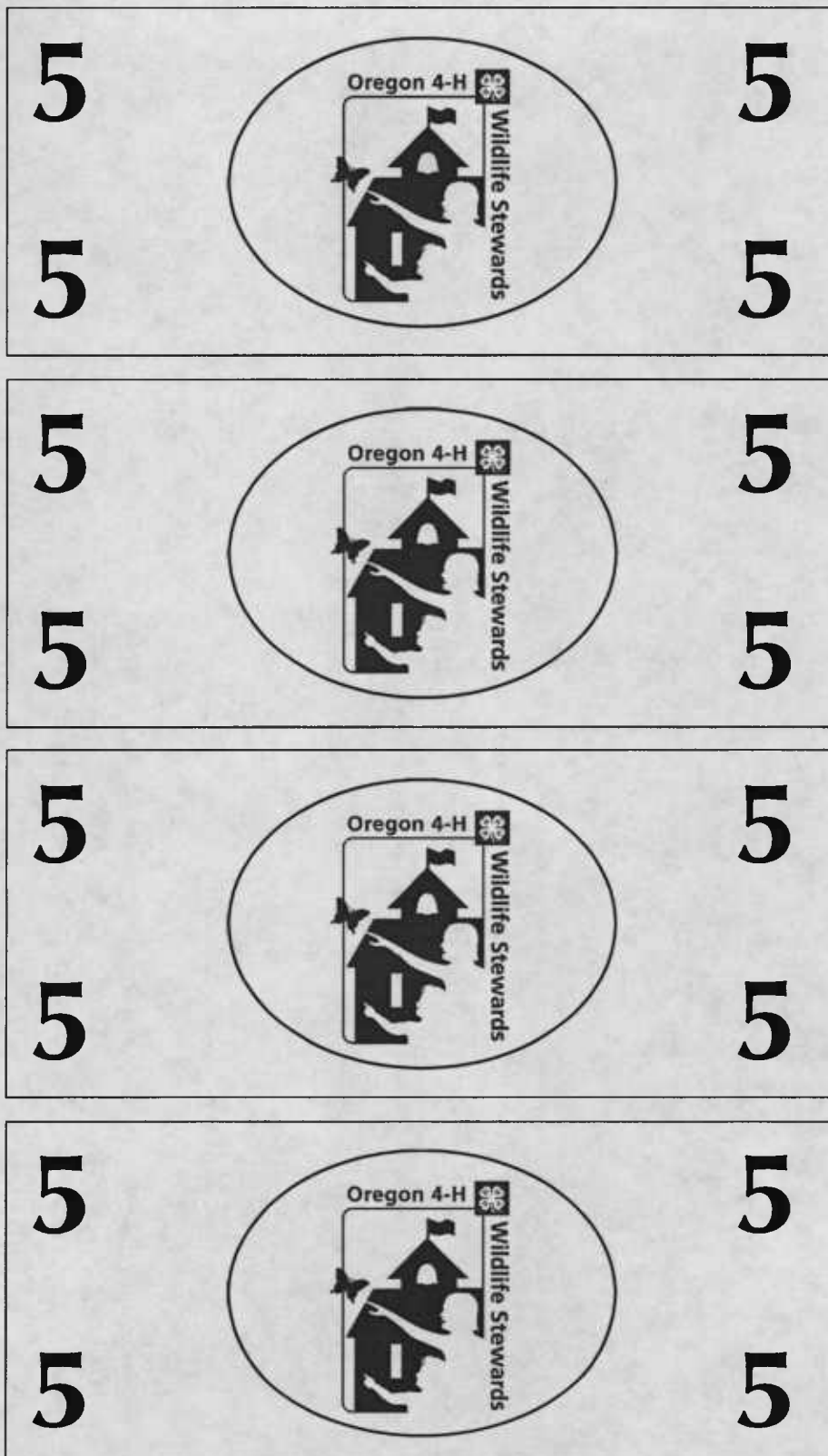
15- to 18-year-olds

- I can choose, plan, and evaluate.
- I need status with my peers.
- I need freedom to make decisions.
- I feel inferior and inadequate.
- I like social activities.

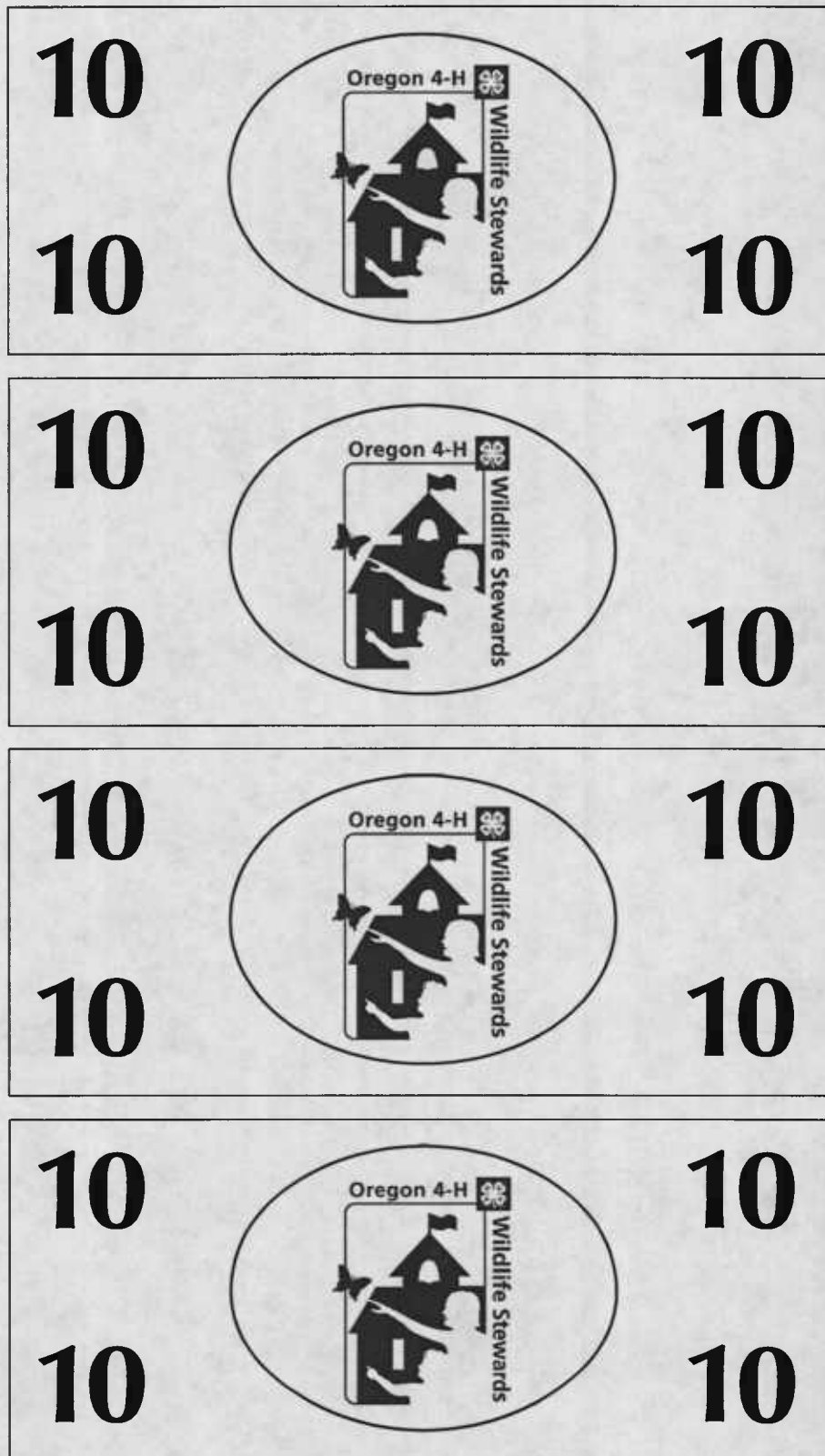
4-H Wildlife Stewards Money



4-H Wildlife Stewards Money



4-H Wildlife Stewards Money



Habitat Team Role-play Cards (front)

Page 1 of 10

**Kindergarten
parent**

**Master
Gardener**

Kindergarten Parent

I am new to this school and new to Oregon. I thought this might be a good way for me to get involved with my child's school and meet new people.

Master Gardener

I live in the neighborhood and enjoy kids. I just completed my Master Gardener training and found out I can pay back my 100 hours at this school.

Habitat Team Role Play Cards (front)

Page 3 of 10

**PTA
President**

**Science
Teacher**

PTA President

Our PTA is interested in sponsoring this project. As a representative on the Habitat Team, I can help ensure that the goals of the PTA are met through this project—to get more parents involved.

Science Teacher

I love the possibilities this project might provide my kids. My time is limited, but I am interested in learning more.

Habitat Team Role Play Cards (front)

Page 5 of 10

**4-H Wildlife
Steward**

**4th Grade
Parent**

4-H Wildlife Steward

I just finished my 4-H Wildlife Stewards training, and I am ready to get to work!

4th Grade Parent

My friend, a 4-H Wildlife Steward, recruited me for this project. It sounds fun! I'm not sure what I can do to help, but give me a task to do and I'll do it.

Habitat Team Role Play Cards (front)

Page 7 of 10

Grandparent

**School
Custodian**

Grandparent

As a grandparent, I see the importance of helping make sure children connect with the outdoors. Too many children sit inside playing computer games. Kids need to be outside. I want to help make sure that happens at my grandkids' school.

School Custodian

The school principal asked me to sit in on this committee to help ensure that school guidelines are followed and that the Habitat does not create extra work for my staff.

Habitat Team Role Play Cards (front)

Page 9 of 10

Observer

**Fish and
Wildlife
Department**

Habitat Team Role Play Cards (back)

Page 10 of 10

Observer

Fish & Wildlife Department

Our agency is very interested in the work this school is doing with its Habitat project. We want to serve as a catalyst to make things happen.

Habitat Team School Scenarios

Kennedy Elementary School

Yours is an urban school in an old, established neighborhood. Fifty percent of the children are on free or reduced school lunch. There traditionally has been high parent involvement in this school. For some time, the principal has had a vision to create an outdoor classroom (habitat site) at the school. Until two parent volunteers approached the principal with the same vision, nothing has happened. The principal has agreed to support the parent volunteers to attend the 4-H Wildlife Stewards training to learn how to create this habitat site. The school grounds are completely covered in asphalt, so this team will be starting from scratch.

Forest Hill School

Your elementary school is in a small rural community that was formerly a timber town. The timber mills have long since closed down, and the community's economy has never recovered. There are 180 children in the school, many of whom live on property with large acreage and woodlands. Several teachers have approached the principal about developing an outdoor habitat project. There is also good support from the local natural resource agencies because the school is near a stream.

Lincoln School

Your elementary school is in an urban area with a large multicultural community. Over 50% of the children speak English as their second language. Parents from these families traditionally have not been involved with their children's school due to language and cultural barriers. The elementary school is right next to the public high school. There are several good areas that can be developed into habitat sites, including a courtyard and the area behind the school facing the high school. The school's administrators are in strong support of this project.

Mark Twain Elementary

Mark Twain Elementary is a suburban school in a community that has experienced rapid population growth. Mark Twain is a large school with 350 students and a strong PTA organization. There are many natural outdoor habitats on the school grounds including a wetlands. A teacher from this school has an interest in developing Habitat Education Sites on school grounds to teach science.

Lee Middle School

Your middle school has a long history of developing excellent hands-on science projects. Several years ago, two teachers developed some Habitat Education Sites on the school grounds. Those teachers are no longer at the school, and the sites get only minimal use and no maintenance. There is a new principal at the school who is encouraging teachers to develop project-based learning opportunities for their students. One of the teachers has agreed to attend the 4-H Wildlife Stewards training.

Habitat Team Wildcards and Roadblock Cards

— ROADBLOCK —

Your school was just assigned a new principal. The new principal is only lukewarm to the development of this project. He is concerned that the project will take away important instruction time from the students.

— WILDCARD —

Your school has just been named the "Environmental School of the Year." A cash prize is included.

— ROADBLOCK —

The grounds staff has just mowed down almost all of your newly planted Habitat by mistake. Oops!

— WILDCARD —

The principal of your school has hired an Americorp volunteer to work 40 hours per week on the project.

— ROADBLOCK —

You came to school today and found your Habitat site vandalized. Plants were pulled up and the new bird boxes were knocked off the trees and smashed. The students are very upset and the school staff is angry. This is the third time your Habitat site has been vandalized, and everyone is growing weary.

— WILDCARD —

You have just found out that your school has been awarded a \$5,000 Intel grant to use any way it chooses.

— ROADBLOCK —

TEAM CHAIR: Two of your Habitat Team members have come to you complaining about another team member who is argumentative. They refuse to continue to work on the team unless something is resolved.

— WILDCARD —

Thirty parents show up at your first work party with shovels, wheelbarrows, and all kinds of donated supplies.

— ROADBLOCK —

Your 4-H Wildlife Steward, who has been instrumental in getting this project off the ground and keeping the "dream" alive, has just informed the group that his/her spouse has had a job transfer. They are moving out of state at the end of this month.

— WILDCARD —

A neighbor's land that is adjacent to school property includes a wetlands. This neighbor just informed your school principal that the teachers and students can develop that wetlands into an educational site for the school.

Appendix D



How to order resources referenced in the Trainers Guide

Item	Where to order
<p>4-H Wildlife Stewards Habitat Education Site Toolkit DVD ("Toolkit DVD").</p> <p>Contents:</p> <ul style="list-style-type: none"> Introduction to 4-H Wildlife Stewards <ul style="list-style-type: none"> 4-H Wildlife Stewards Overview Sample Habitat Education Site Projects 4-H Junior Wildlife Stewards Camp Creating and Using Your Habitat Education Site <ul style="list-style-type: none"> Teaching Science through Experiential Learning Mapping Your Site and Site Inventory Principles of Wildlife Management Sustaining and Managing Your Project <ul style="list-style-type: none"> Keys to Success Growing Your Program (Building a Habitat Team) Project Sustainability Certification Vandalism Prevention Summer Maintenance <hr/> <p>Oregon PowerPoint slide presentations:</p> <ul style="list-style-type: none"> 4-H Junior Wildlife Stewards After-school Clubs Closing Program Discouraging Vandalism in Your School Keys to Success Mapping and Inventory Basics Program Overview Public Schools Guidelines for Installing A Habitat Education Site or Community Garden Summer in the Habitat Teaching Science through Experiential Learning The Science Inquiry Learning Model Using the Habitat Education Site as an Outdoor Learning Lab Welcome and Introduction <hr/> <p>Certificate of Completion (color copies)</p> <hr/> <p>4-H Wildlife Stewards T-shirts</p> <hr/> <p>Education kits (to lend; for Oregon 4-H Wildlife Stewards only)</p> <hr/> <p>4-H Wildlife Stewards banner</p> <hr/> <p>Gardening for Wildlife Native Plant Flashcards</p>	<p>4-H Wildlife Stewards Oregon office: www.4hwildlifestewards.org</p>

How to order resources referenced in the Trainers Guide—continued

Item	Where to order
<p>4-H Wildlife Stewards Volunteer Handbook (4-H 3100L)</p> <p>4-H Wildlife Stewards Project Certification Handbook (4-H 3103L)</p> <p>The Wildlife Garden set</p> <p>Exciting Meetings for Great Groups (4-H 0256L)</p>	<p>Oregon State University Extension Service Extension and Experiment Station Communications</p> <p>Many OSU Extension Service publications may be viewed or downloaded from the Web. Visit the online Publications and Videos catalog at</p> <p>http://eesc.oregonstate.edu</p> <p>Copies of our publications and videos also are available from OSU Extension and Experiment Station Communications. For prices and ordering information, visit our online catalog or contact us by fax (541-737-0817), e-mail (puborders@oregonstate.edu), or phone (541-737-2513).</p>
Ecology Flashcards	<p>OSU Extension Service, Benton County 1849 NW 9th St. Corvallis, OR 97330-2144 Phone: 541-766-6750 Fax: 541-766-3549 Hours: 8-5 M-F</p>
4-H Clover banner and other club supplies	<p>National 4-H Council http://www.4-hmall.org/ClubSupplies</p>