UNIT 1: "ADVENTURES WITH YOUR CAMERA"
- For beginning photographers (ages 9 and older)
- Teaches the basics of good picture-taking
- Full-color step-by-step photos in Member's Guide

UNIT 2: "EXPLORING PHOTOGRAPHY"
- For intermediate photographers
- More advanced techniques with simple cameras
- Action pictures, night scenes, composition, slide films, and basic photographic principles covered in black-and-white Member's Guide

"ADJUSTABLE CAMERAS"
- For users of adjustable cameras with interchangeable lenses
- Why and when to use different lens openings, shutter speeds, and lenses

"DARKROOM TECHNIQUES"
- For those who want to process and print their own film (black-and-white and color)
- Can be learned at any time after completing Unit I
- Darkroom facilities and equipment are needed

"ACTION! MAKING VIDEOS AND MOVIES"
- For photographers who want to make their own video tapes or movies
- Members learn to plan, shoot, and edit videos and movies

ADVANCED SKILL GUIDES
For special interests, the following material is available through county 4-H agents.

"Experimenting With Your Enlarger"
"Investigating Portraiture"
"How to Produce a Slide Show"
"Fitting a Darkroom Into Your Life"
"Making the Most of Your Photo Skills in Your Future Career"

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<td>18</td>
<td>Bibliography &amp; Resource People</td>
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INTRODUCTION

Welcome to Leadership in 4-H Photography! No special knowledge is required. This Guide and the Member's Manual provide all the information you need for Unit 1. They are designed to make photography easy to learn and to teach.

There are only three essential requirements for successful leadership. One, MAKE IT FUN. Two, make it fun by KEEPING A LIVELY PACE. And three, keep a lively pace by KEEPING THEM BUSY.

INFORMATION

This manual contains information for instruction. You'll find photographic information in the Member's Manual. For additional information, you can turn to the photography books in the bibliography and the resource people listed on page 18.

PROGRAM CONTENT

The manuals are designed to make this unit easy to manage — for leaders and members. Review this material. Projects ("Adventures") are listed on pages 38 to 41 of the Member's Manual. Additional meeting activities are included in this Leader's Manual. Use these suggestions to form your own meeting plans.

Base the content on the age, speed and experience of group members. Although activities are suggested throughout, augment these recommendations with other ideas for field trips and projects. Use whatever supplementary material and situations you have available.

Ask your county 4-H agent if there are any special requirements for your state.

SUPPLIES AND COSTS

Members need the following supplies.

- CAMERA (any amateur camera) with a built-in flash or flash attachment. Batteries are usually required.
- CAMERA CLEANING SUPPLIES (any camel's hair brush and lens cleaning paper or a soft cloth).
- FILM (a minimum of six 24-exposure rolls to complete all meeting assignments). A 200-speed film for color prints is a good general-purpose recommendation, but any film will work.
- Optional construction supplies to make a cut-out viewer and a photo album or display board (SEE Member's Manual pp.3, 31).

Keep in mind that members will need a source for film processing and printing.

Don't forget costs. You may want to project the costs to make sure the budget is adequate. Educational discounts may be available from retailers.

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LEARNING BY DOING

People learn best by doing. Try this schedule: Give short demonstration or information sessions — timed in minutes; have members use what you told them; provide feedback (from you or their peers) to reinforce what they just learned. You'll be surprised how much they'll learn.

Have the members teach most of the material through presentations and explanations. Avoid lectures. Show the kids how to teach using single-concept bits of:

- **Stimulation** (information presentation).
- **Response** (using or doing what was presented).
- **Feedback** (positive reinforcement by comments from the instructor, immediate correction of mistakes while they are "doing," coaching by the leader or other members. Always a pat on the back for getting the idea.)

TIMING

Time the introduction of new material to the aptitude of your members. Move as quickly as they can master the subject. Group size may partly determine your speed. The ideal group is 6-10 members.

Give individual as well as group instruction. Keep discussions short and use visuals whenever possible. (Photography is visual.) Finally, try to determine the photographic interests of your members.

TEAM

Learning photography can benefit from teamwork. Your members can teach each other. You don't have to talk on every topic because your members will do it.

You are the coach — you help them and guide them.

Here is one idea of what to do. Group the members into teams — 3 members each — for the first meeting. Change the teams frequently — perhaps for every meeting.

Team members will prepare demonstrations and explanations for the rest of the members about the things they'll be studying. They will also critique their own pictures from photo assignments. In group activities, a team will have a model, a photographer, and a director, and these roles will change often enough so that every member gets to play each role. Of course, you'll need individual projects, too.
HINTS FOR WORKING WITH YOUNG PEOPLE

Through their various projects 4-H members will be acquiring basic development skills such as:

- learning to learn
- relating to change
- using knowledge
- developing self

As an effective leader you want to remember that at each age level there is a need to emphasize different skills and provide different degrees of leader input. As members grow older or progress in the projects the need for leader guidance decreases.

You will want to be aware of your members' development and reinforce proper attitudes. The following list of characteristics and implications may help you in planning your role as a 4-H leader.

PROPORTIONS OF LEADER INPUT AND YOUTH INPUT AT THREE AGE LEVELS

<table>
<thead>
<tr>
<th>9-12 Years</th>
<th>13-15 Years</th>
<th>16-19 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Input</td>
<td>Youth Input</td>
<td>Leader Input</td>
</tr>
</tbody>
</table>

9-TO-12 AGE GROUP

Characteristics of Age Group

- Quite active, boundless energy
- Like group activity
- Interests change rapidly, jump from one thing to another
- Work must be entirely laid out and in small pieces. They need to experience success quickly.
- Need much guidance from adults
- Admire and imitate older boys and girls
- Normally have little formal leadership ability
- Are easily motivated, eager to try something new
- Like symbols and regalia
- Need recognition and praise for doing good work
- Do not like to keep records, do not see the value in them, need assistance and close supervision

Implications

- Put emphasis on doing (making things that require using hands).
- Suggest small groups for project instruction.
- Suggest many different tasks of short duration.
- Outline "things to do" in detail. Literature should be elementary and well illustrated.
- Suggest ways that parents can help (important to have detailed materials for adult volunteer leaders (project and organizational).
- Suggest ways that teen leaders can help.
- Must rely on adult leaders and teen leaders for leadership.
- Suggest a variety of activities (tours to view other projects, demonstrations, etc.).
- Make pins and medals available to those who earn them.
- Present pins and medals in front of peers and parents.
- Make records as simple as possible, provide clear instructions, provide a place for parent and leader signatures and ask for a short narrative report (cause member to review what subject has learned).

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## CHARACTERISTICS AND IMPLICATIONS

### 13-TO-15 AGE GROUP

**Characteristics of Age Group**
- Concerned about physical development, being liked by friends, social graces and good grooming (even though they don't like to admit it)
- Desire a sense of independence yet they want and need their parents' help
- Exploring, questioning
- Self-conscious, many needing help to get over inferiority complexes

**Age of fan clubs and adult idols**
- Want to get outside of own community to explore
- Getting over age of fantasy and beginning to think of what they will do when they grow up
- Some interest in vocational activities
- Interest in sports and active games
- Deeper interest and can stay with something longer to complete it

### Implications
- Indicate how projects help members to meet these needs and suggest activities that serve this purpose.
- Put more emphasis on members getting assistance from teen leaders, adult leaders, and peers.
- Provide more choices of projects with possibilities for branching off into specific areas. Put more emphasis on the "why". (Suggest that time be devoted to discussion and answering questions.)
- Put more emphasis on meeting individual needs. Put more emphasis on demonstrations, judging, and public activities to get members before a group (must be helped to succeed in front of the group). Showing photos and describing them may help.
- Testimonials from outstanding athletes are helpful. Teen and adult leaders must be well liked to be effective, and teen leaders should be three or four years older than members and considerably more mature (must not reject those whom they are leading).
- Put more emphasis on tours and camping.
- Provide information on various careers connected with the different project areas.
- Recommend projects and activities in which boys and girls with similar interests can work together.
- Inject fun and active participation into project work. Tasks may be more difficult and of longer duration.
- Suggest more detailed records. Recommend that members begin assembling achievement records. Provide more space in record books for recording related activities.

### 16-TO-19 AGE GROUP

**Characteristics of Age Group**
- Social needs and desires high
- Want and need a strong voice in planning own programs
- Want adult leadership
- Quite interested in vocational activities
- Areas of interests are more restricted; patterns of interest becoming more definite
- Need vocational guidance
- Developing community consciousness
- Beginning to think of leaving for college, employment, marriage, etc.
- Many will leave the community for employment and many who go to college will not return to their present community after graduation
- Interested in travel and adventure

### Implications
- Put more emphasis on personal development wherever possible (mental and social).
- Provide suggestions and several alternatives rather than detailed instructions.
- Emphasize guidance and counsel from adult leaders rather than directions.
- Recommend liberal use of discussion methods.
- Provide many opportunities for boys and girls to work together.
- More work can have considerably more depth. May need to suggest related areas to give members a broader outlook. Provide references.
- Include suggestions and information of a career exploration nature.
- Recommend civic projects of a service nature. Document community activity with a camera.
- Put emphasis on economics (management, budgets, record keeping, credit, etc.). Emphasize the need for a continuing education.
- Need to introduce members to the urban-industrial complex through tours, trips to state and interstate conferences, and audiovisual materials (slides, films, and TV tapes).
- Trips rather than medals and ribbons should be provided as incentives.
# MEETING 1

## OUTLINE

<table>
<thead>
<tr>
<th>INTRODUCTION</th>
<th>SUPPLIES</th>
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</thead>
<tbody>
<tr>
<td>1. Welcome Members</td>
<td>Member’s Manual Pages</td>
</tr>
<tr>
<td>2. Review Unit 1 content/objectives</td>
<td></td>
</tr>
<tr>
<td>- 5 basic elements of photography</td>
<td>4-5</td>
</tr>
<tr>
<td>- Camera handling and care</td>
<td>6-8, 33</td>
</tr>
<tr>
<td>- Film handling and care</td>
<td>32</td>
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<tr>
<td>- Taking good, sharp pictures</td>
<td>9-11</td>
</tr>
<tr>
<td>- Displaying pictures</td>
<td>30-31</td>
</tr>
<tr>
<td>3. Explain the method</td>
<td></td>
</tr>
<tr>
<td>- Meetings (team reports)</td>
<td>Record book</td>
</tr>
<tr>
<td>- Member’s Manual reading</td>
<td>Meeting plan copies</td>
</tr>
<tr>
<td>- Picture-taking “Adventures” (projects, field trips)</td>
<td>Member’s Manual</td>
</tr>
<tr>
<td>- Mention other Units available in the 4-H Photography Program</td>
<td>38-41</td>
</tr>
<tr>
<td>4. Supplies and Planning</td>
<td></td>
</tr>
<tr>
<td>- Distribute list of equipment and supplies members will need.</td>
<td></td>
</tr>
<tr>
<td>- Discuss any permissions needed for field trips</td>
<td></td>
</tr>
</tbody>
</table>

## INSTRUCTION

Involves members using their cameras

<table>
<thead>
<tr>
<th>MEETING ACTIVITY</th>
<th>SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. CAMERA STEADINESS TEST</td>
<td></td>
</tr>
<tr>
<td>(See p. 8 of this manual)</td>
<td>Camera, mirror(s), tape, flashlight(s)</td>
</tr>
</tbody>
</table>

## ASSIGNMENTS

(All reading assignments are in the Unit 1 Member’s Manual. You may wish to assign one team to report on reading material starred below.)

**READING:**

- “Holding the Camera” 6-7
- “Taking Sharp Pictures” 9-11
- “Caring for Film and Cameras” 32-33

**PHOTOGRAPHY:**

- Adventures 1 and 2 38
CAMERA STEADINESS TEST

. . IN A DARKENED ROOM

Tape a small mirror to the front of a camera lens. Have a member hold the camera up to his or her eye as if about to take a picture. In the darkened room, have a member shine the light beam from a flashlight into the mirror, so that the mirror reflects the beam onto an adjacent wall. If the member is holding the camera steady, the spot on the wall should not move. Then have the member press the shutter release as if taking a picture. Again, the spot of light on the wall should not move.

HOW TO USE AN EYE-LEVEL VIEWFINDER

1. Correct eye position. Picture is framed properly as you saw through viewfinder.

2. Eye is too close. You get less than you saw.

3. Eye too far. You get more than you saw - main subject is too small.

4. Eye is to one side of center. Subject is to one side in picture, perhaps cut off.
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<tbody>
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<tr>
<td><strong>REVIEW</strong></td>
</tr>
<tr>
<td>1. Review Reading Assignment</td>
</tr>
<tr>
<td>“Holding the Camera”</td>
</tr>
<tr>
<td>“Caring for Film and Cameras”</td>
</tr>
<tr>
<td>“Taking Sharp Pictures” (team report)</td>
</tr>
<tr>
<td>2. Review Photography Assignment</td>
</tr>
<tr>
<td>(“Taking Sharp Pictures”)</td>
</tr>
<tr>
<td>Camera Steadiness</td>
</tr>
<tr>
<td>(Even experienced photographers are surprised to see how much sharper pictures are when taken with the camera on a tripod or a solid surface.)</td>
</tr>
<tr>
<td>Camera Distance from the Subject</td>
</tr>
<tr>
<td>(Too close, and pictures will be blurry. But, as we will learn, sharp close-ups make great pictures . . . so remember what's within the range of sharpness.)</td>
</tr>
<tr>
<td><strong>INSTRUCTION</strong></td>
</tr>
<tr>
<td><strong>MEETING ACTIVITY</strong></td>
</tr>
<tr>
<td>4. PRACTICE SEEING PICTURES</td>
</tr>
<tr>
<td>• Make a cut-out viewer</td>
</tr>
<tr>
<td>• Practice horizontal and vertical framing</td>
</tr>
<tr>
<td>• Practice holding the viewer level</td>
</tr>
<tr>
<td><strong>ASSIGNMENTS</strong> (* TEAM REPORTS RECOMMENDED*)</td>
</tr>
<tr>
<td><strong>READING:</strong></td>
</tr>
<tr>
<td>• “Cameras”</td>
</tr>
<tr>
<td>• “Kinds of Cameras”</td>
</tr>
<tr>
<td>• “Film Types”</td>
</tr>
<tr>
<td>• “Get Close”</td>
</tr>
<tr>
<td>• “Keep It Simple!”</td>
</tr>
<tr>
<td>• “Move A Bit!”</td>
</tr>
<tr>
<td><strong>PHOTOGRAPHY:</strong></td>
</tr>
<tr>
<td>Adventures 3, 4, 5 and 6</td>
</tr>
</tbody>
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# MEETING 3

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<td></td>
<td>12-13 14-15 16-17</td>
</tr>
<tr>
<td>1. Review Reading Assignment (Team reports)</td>
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<td>Pictures to review</td>
</tr>
<tr>
<td>&quot;Cameras&quot;</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>&quot;Kinds of Cameras&quot;</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>&quot;Film Types&quot;</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>2. Review Photography Assignment</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Holding the camera level</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(&quot;Adventure #3 includes pictures with horizon lines off-center. Most people prefer this composition as more interesting than pictures that are always centered.&quot;)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Horizontal/Vertical pictures</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(Discuss subjects well suited for horizontal pictures ...)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>and for vertical pictures.)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Techniques for good pictures</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(Discuss why close views, simple backgrounds, and different viewpoints make better pictures.)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td><strong>INSTRUCTION</strong></td>
<td></td>
<td>22-23</td>
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<tr>
<td>3. LIGHTING (Daylight)</td>
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<td>24-26</td>
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<tr>
<td>4. FLASH (Artificial light)</td>
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<td></td>
</tr>
<tr>
<td><strong>MEETING ACTIVITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PRACTICE SEEING LIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Show the direction of light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Move outdoors, if possible. If not, a flashlight shining on a face in a dark room shows this well.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Look for subjects that show interesting effects of light.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ASSIGNMENTS</strong></td>
<td></td>
<td>22-23 24-26 40-41</td>
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<tr>
<td>READING:</td>
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<td></td>
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<tr>
<td>&quot;Lighting&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Flash&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHOTOGRAPHY: Adventures 7, 8 and 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## MEETING 4

<table>
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<tr>
<th>OUTLINE</th>
<th>SUPPLIES</th>
<th>Member’s Manual Pages</th>
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</thead>
<tbody>
<tr>
<td><strong>REVIEW</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Review Reading Assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Lighting&quot;</td>
<td></td>
<td>22-23</td>
</tr>
<tr>
<td>&quot;Flash&quot;</td>
<td></td>
<td>24-26</td>
</tr>
<tr>
<td>2. Review Photography Assignment</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Direction of Light</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(Share impressions about the effects of light from the front, side, and back. Discuss overcast days as great for people-pictures.)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Flash distance</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(Discuss “flash range” (p. 24) and note which of the 3 pictures at different distances received the most perfect amount of light.)</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>• Flash reflections from shiny surfaces</td>
<td></td>
<td>Pictures to review</td>
</tr>
<tr>
<td>(Ask what other surfaces will probably reflect a harsh spot of light when the flash is straight-on. Eyeglasses are an example.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INSTRUCTION</strong></td>
<td></td>
<td>28-29</td>
</tr>
<tr>
<td>3. PHOTO STORY</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>NOTE: Announce plans for a field trip at the next meeting, and arrange the necessary permissions/clearances.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEETING ACTIVITY</strong></td>
<td></td>
<td>34-35</td>
</tr>
<tr>
<td>4. TRICK PICTURES</td>
<td></td>
<td>Props for tricks</td>
</tr>
<tr>
<td>(Have teams take the trick pictures illustrated in the Member’s Manual and any others they can imagine.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ASSIGNMENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>READING:</td>
<td></td>
<td>28-30</td>
</tr>
<tr>
<td>&quot;Photo Story&quot;</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>&quot;Composition&quot;</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>PHOTOGRAPHY:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adventures 10 and 11</td>
<td></td>
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</table>

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MEETING 5

<table>
<thead>
<tr>
<th>OUTLINE</th>
<th>SUPPLIES</th>
<th>Member's Manual Pages</th>
</tr>
</thead>
</table>

**FIELD TRIP**

Have teams create photo stories of the field trip. Pictures could include:
- transportation ("how we traveled there")
- signs, buildings ("where we went")
- people ("who went")
- destination ("what we saw")

**ASSIGNMENTS**

**READING:** "Showing Your Pictures"

**PHOTOGRAPHY:** All teams prepare an exhibit board or album to show a photo story from the field trip or Adventure #11.

One team prepares a report on how to make a photo album.

Another team reports on ideas for creating a mounted display.

Another team reports on how to handle, organize, label, and store film negatives and prints.

| 30-31 |
| 31 |
| 31 |
| 32 |

**TRICK PICTURE**

(MEETING 4)

NOTE: Unlike SLR (Single Lens Reflex) cameras, most simple cameras have separate optical systems for viewing and taking pictures. This produces parallax (change in image position). Trial and error may be required.
# MEETING 6

## REVIEW

1. Team Reports
   - Making a photo album
   - Mounted displays
   - Storing film negatives & prints

2. Review mounted photo stories.

3. Discuss ways pictures can be used in record books for other 4-H projects.

4. Discuss most helpful or memorable lessons learned in Unit 1.

5. Describe other Units in the 4-H Photography Program.

5. Encourage your "graduates" to use pictures to record their experiences in 4-H . . . and throughout their lives.

---

[NOTE: Consider serving refreshments and inviting parents to this final meeting.]
GLOSSARY
OF COMMONLY USED PHOTOGRAPHIC TERMS

Adjustable camera A camera with manually adjustable distance settings, lens openings, and shutter speeds.

Adjustable-focus lens A lens that has adjustable distance settings.

Angle of view The portion of a scene that is seen by a camera lens. The width of this wedge-shaped portion is determined by the focal length of the lens. A wide-angle (short-focal-length) lens includes more of the scene, or a wider angle of view than a normal (normal focal-length) or telephoto (long-focal-length) lens.

Aperture (lens opening) The opening in a lens system through which light passes. The size of the aperture is either fixed or adjustable. Lens openings are usually calibrated in f-numbers.

Automatic camera A camera with a built-in exposure meter that automatically adjusts the lens opening, shutter speed, or both, for proper exposure. (Some cameras may be equipped with an automatic focusing device as well.)

Background The part of the scene that appears behind the principal subject of the picture.

Backlighting Light shining on the subject from the direction opposite the camera, distinguished from frontlighting and sidelighting.

Balance Placement of colors, light, dark masses, or large and small objects in a picture to create harmony and equilibrium.

Bellows The folding portion in some cameras that connects the lens to the camera body. Also, a device used to increase the distance between lens and film for close-up photography.

Blowup An enlargement, a print that is made larger than the negative or slide.

Bounce lighting Flash or tungsten light bounced off the ceiling or walls to give the effect of natural or available light.

Camera angles Various positions of the camera (high, medium, or low, and left, right or straight-on) with respect to the subject, each giving a different viewpoint or effect.

Candid pictures Unposed pictures, often taken without the subject's knowledge. These usually appear more natural and relaxed than posed pictures.

Cartridge A lighttight, factory-loaded film container that can be placed in or removed from the camera in daylight.

Close-up A picture taken with the camera close to the subject.

Close-up lens A lens attachment placed in front of a camera lens to permit taking pictures at a closer distance than the camera lens alone will allow.

Coated lens A lens coated with a very thin layer of transparent material that reduces the amount of light reflected by the surface of the lens. A coated lens is faster (transmits more light) than an uncoated lens.

Color balance The ability of a film to reproduce the colors of a scene. Color films are balanced in manufacture for exposure to light of a certain color quality (i.e., daylight, tungsten, etc.). Color balance also refers to the reproduction of colors in color prints, which can be altered during the printing process.

Composition The arrangement of all elements in a picture: main subject, foreground, background, and supporting subjects.

Continuity The smooth flow of ideas or visuals in a slide show.

Contrast The density range of a negative, print, or slide; the brightness range of a subject or the scene lighting.

Contrasty Higher than normal contrast. The range of density in a negative or print is higher than it was in the original scene.

Cropping Printing only part of the image that is in the negative or slide.

Darkroom A lighttight area used for processing films and, or printing and processing papers; also for loading and unloading film holders and some cameras.

Definitive The impression of clarity of detail perceived by an observer viewing a photograph.

Densitometer An instrument for measuring the density of an area in a negative or print.

Density The blackness of an area in a negative or print which determines the amount of light that will pass through it or reflect from it.

Depth of field The distance range between the nearest and farthest objects that appear in acceptably sharp focus in a photograph. Depth of field depends on the lens opening, the focal length of the lens, and the distance from the lens to the subject.

Depth of focus The distance range over which the film could be shifted at the film plane inside the camera and still have the subject appear in sharp focus; often misused to mean depth of field.

Developer A solution used to turn the latent image into a visible image on exposed films or photographic papers.

Double exposure Two pictures taken on one frame of film, or two images printed on one piece of photographic paper.
Editing Selecting slides for a slide show.

Emulsion A thin coating of light-sensitive material, usually silver halide in gelatin, in which the image is formed on film and photographic papers.

Emulsion side The side of the film coated with emulsion.

Enlargement A print that is larger than the negative or slide; blowup.

Enlarger A device consisting of a light source, a negative holder, and a lens, and a means of adjusting these to project an enlarged image from a negative onto a sheet of photographic paper.

Existing light Available light. Strictly speaking, existing light covers all natural lighting from moonlight to sunshine. By our definition for photographic purposes, existing light comprises the light that is already on the scene or project and includes room lamps, fluorescent lamps, spotlights, neon signs, candles, daylight through windows, outdoor scenes at twilight or in moonlight, and scenes artificially illuminated after dark.

Exposure The quantity of light allowed to act on a photographic material or product of the intensity (controlled by the lens opening) and the duration (controlled by the shutter speed or enlarging time) of light striking the film or paper.

Exposure latitude The range of camera exposures from underexposure to overexposure that will produce acceptable pictures from a specific film.

Exposure meter An instrument with a light-sensitive cell that measures the light reflected from or falling on a subject, used as an aid in selecting the exposure setting. The scale as a light meter.

Exposure setting The lens opening and shutter speed selected to expose the film.

Fill-in light Auxiliary light from a lamp or reflector used to soften or fill in the shadows or dark picture areas caused by the main light source.

Film A photographic emulsion coated on a flexible transparent plastic base.

Film speed The sensitivity of a given film to light, indicated by a number (such as 64); the higher the number, the more sensitive, or faster, the film.

Filter A colored piece of glass or other transparent material used over the lens to emphasize, eliminate, or change the color or density of the entire scene or certain elements in the scene.

Finder A viewing device on a camera designed to show the subject area that will be recorded on the film. Also known as viewfinder and projected frame.

Fixed-focus lens A lens that has been focused in a fixed position by the manufacturer. The user does not have to adjust the focus of this lens.

Flash A brief, intense burst of light produced by a flashbulb or an electronic flash. It is usually used where the lighting on the scene is inadequate for picture-taking.

Flat too low in contrast. The range in density in a negative or print is too short.

Flat light Lighting that produces very little contrast or modeling on the subject plus a minimum of shadows.

F-number A number used to indicate the size and light-passing ability of the lens opening on most adjustable cameras. Common f-numbers are f/2.8, f/4, f/5.6, f/8, f/11, f/16, and f/22. The larger the f-number, the smaller the lens opening. In this series f/2.8 is the largest lens opening and f/22 is the smallest. These numbers indicate the ratio of the focal length of the lens to the effective diameter of the lens opening. f-numbers help you get the right exposure.

Focal length The distance from the lens to a point behind the lens where light rays are focused when the distance scale is set on infinity. Focal length determines image size at a given lens-to-subject distance.

Focal-plane shutter An opaque curtain containing a slit that moves directly across in front of the lens of a camera and allows image-forming light to strike the film.

Focus Adjustment of the distance setting on a lens to sharply define the subject.

Forging Darkening or discoloring of a negative or print or lightening or discoloring of a slide caused by (1) exposure to nonimage-forming light to which the photographic material is sensitive, (2) too much handling in air during development, (3) over-development, (4) outdated film or paper, or (5) storage of film or paper in a hot, humid place.

Forced development Increasing the development time of a film to increase its effective speed (raising the ASA number for initial exposure) for low-light situations, push-processing.

Foreground The area between the camera and the principal subject.

Frontlighting Light shining on the subject from the direction of the camera.

Graininess The sand-like or granular appearance of a negative, print, or slide resulting from the clumping of silver grains during development of the film. Graininess becomes more pronounced with faster films, increased density in the negative, and degree of enlargement.

High contrast A wide range of density in a print or negative.

Highlights The brightest areas of a subject and the corresponding areas in a negative, a print, or a slide.

Hyperfocal distance Distance of the nearest object in a scene that is acceptably sharp when the lens is focused on infinity.
Latent image The invisible image left by the action of light on photographic film or paper. The light changes the photosensitive salts to varying degrees depending on the amount of light striking them. When processed, this latent image will become a visible image either in reversed tones (as in a negative) or in positive tones (as in a color slide).

Lens One or more pieces of optical glass or similar material designed to collect and focus rays of light to form a sharp image on the film, paper, or projection screen.

Lens speed The largest lens opening (smallest f-number) at which a lens can be set. A fast lens transmits more light and has a larger opening than a slow lens.

Lighting The illumination falling on a subject, particularly the direction or arrangement of the illumination.

Light meter (See Exposure meter)

Long shot A scene taken from a relatively long distance. The main subject usually appears relatively small in respect to the entire frame size. A long shot is often used to establish the location and setting.

Magazine A lighttight metal container that holds 135 film.

Medium shot A picture made about halfway between a close-up and a close-up shot to simulate normal viewing distance.

Negative The developed film that captures a reversed form of the original scene.

Normal lens A lens that makes the image in a photograph appear in a perspective similar to that of the original scene. A normal lens has a shorter focal length and a wider field of view than a telephoto lens and a longer focal length and narrower field of view than a wide-angle lens.

Ortho Film sensitive to blue and green light.

Overexposure A condition in which too much light reaches the film, producing a dense negative or a washed-out print or slide.

Panning Moving the camera so that the image of a moving object remains in the same relative position in the viewfinder as you take a picture.

Pan (panchromatic, adj) Sensitization of a black-and-white film so that it records all colors in tones of about the same relative brightness as the human eye sees in the original scene.

Panorama A broad view, usually scenic.

Parallax At close subject distances, the difference between the field of view seen through the viewfinder and that recorded on the film. This is due to the separation between the viewfinder and the lens. There is no parallax with single-lens reflex cameras, because when you look through the viewfinder, you are seeing the subject through the picture-taking lens.

Perforation(s) Regularly and accurately spaced holes punched throughout the length of 35 mm film.

Planning cards Pieces of paper (for example, 4 x 6-inch index cards) used to plan a photo story. Each card represents one picture. A rough sketch of the shot and any pertinent information, such as location, camera angle, camera-to-subject distance, and message the shot should convey, can be part of the card.

Positive The opposite of a negative; an image with the same tonal relationships as those in the original scene - for example, a finished print or a slide.

Print A positive picture, usually on paper, and usually produced from a negative.

Processing A procedure during which exposed photographic film or paper is developed, fixed, and washed to produce either a negative image or a positive image.

Push Processing (See Forced development)

Rangefinder A device included on many cameras as an aid in focusing.

Reflector Any device used to reflect light onto a subject.

Reflex camera A camera in which the scene to be photographed is reflected by a mirror onto a reflex 5 where it can be focused and composed. In a single-lens reflex (SLR) camera, the scene is viewed through the same lens that takes the picture, thus avoiding parallax. With a twin-lens reflex (TLR) camera, the scene is viewed through the top lens, and the picture is taken through the bottom lens.

Retouching Altering a print or negative after development by use of dyes or pencils to alter tones of highlights, shadows, and other details, or to remove blemishes.

Safelight An enclosed darkroom lamp fitted with a filter to screen out light rays, which film and paper are sensitive.

Script A set of written specifications for the production of a slide show.

Selective focus Choosing a lens opening that produces a shallow depth of field. Usually this is done to isolate a subject by causing most other elements in the scene to be blurred.

Shutter blades A curtain, a plate, or some other movable cover in a camera which controls the time during which light reaches the film.

Sidelighting Light striking the subject from the side relative to the position of the camera; produces shadows and highlights to create modeling on the subject.

Simple camera A camera that has few or no adjustments to be made by the picture-taker. Usually, simple cameras have only one size of lens opening and one or two shutter speeds and do not require focusing by the picture-taker.

Slide A photographic transparency, usually color, mounted for projection.
Soft focus: Produced by use of a special lens creating soft outlines where light areas tend to encroach on dark areas.

Soft lighting: Lighting that is low or moderate in contrast.

Spotting: Retouching a processed print with a pencil or brush (with water colors or dyes) to eliminate spots left by dust on the negative.

Stain: Discolored areas on film or paper, usually caused by contaminated developing solutions or by insufficient fixing, washing, or agitation.

Telephoto lens: A lens that makes a subject appear larger on film than does a normal lens at the same camera-to-subject distance. A telephoto lens has a longer focal length and narrower field of view than a normal lens.

Thin negative: A negative that is under-exposed or underdeveloped (or both). A thin negative appears less dense than a normal negative.

Through-the-lens viewing: Viewing a scene to be photographed through the same lens that admits light to the film. Through-the-lens viewing, as in a single-lens reflex (SLR) camera, while focusing and composing a picture, eliminates parallax.

Time exposure: A comparatively long exposure made in terms of seconds or minutes. It is used primarily in night photography.

Title: A scene that shows the name of a slide show (usually placed at the beginning) or indicates or explains what is coming next.

Tone: The degree of lightness or darkness in any given area of a print; also referred to as value. Cold tones (bluish) and warm tones (reddish) refer to the color of the image in both black-and-white and color photographs.

Toning: Intensifying or changing the tone of a photographic print after processing. Solutions called toners are used to produce various shades of brown and blue.

Transparency: A positive photographic image on film, viewed or projected by transmitted light (light shining through film).

Tripod: A three-legged supporting stand used to hold the camera steady.

Tungsten light: Light from regular room lamps and ceiling fixtures, not fluorescent.

Underexposure: A condition in which too little light reaches the film, producing a thin negative, a dark slide, or a muddy-looking print.

Unipod: A one-legged support used to hold the camera steady.

Viewfinder: Viewing a scene to be photographed through the same lens that admits light to the film.

Vignetting: Printing the central area of a picture while shading the edge areas gradually into white.

Wide-angle lens: A lens that has a shorter focal length and a wider field of view (includes more subject area) than a normal lens.

Zoom lens: A lens in which the focal length can be adjusted over a wide range, giving the photographer, in effect, lenses of many focal lengths.

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BIBLIOGRAPHY


All of the books below are written and published by Eastman Kodak Company and are available from your photo dealer.

- How to Take Good Pictures
- KODAK Guide to 35mm Photography
- KODAK Pocket Guide to Great Picture Taking
- More Joy of Photography
- The New Joy of Photography

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