

FOOD

Makes the Difference #6

Go With Minerals 4-H Leader–Junior Leader Guide 4-H1337L • Reprinted July 1992

Before the meeting Become familiar with how the game is played, and the questions, answers, and discussion points. Cut apart the questions

on pages 3 and 4.

The meeting plan

1. Play the MINE RALley Game.

- 2. After completing each question, discuss with the group the correct answers.
- 3. Add up the score.
- 4. Play the game again, if you have time.

Game: MINERALley
The object of the game is for each
team to get the highest score by
answering the questions first and
with correct answers.

Before the game

- Decide how many teams you expect to have. (Each team could have from three to six team members.)
- Cut apart the questions. Clip the copies of each question together. Each team will need one copy of all the questions.
- 3. Take at least one pencil for each team.

The food is for	Minerals come from	Pay special attention to
Horse	feed, mineral supplement	calcium, phosphorus, iodine
Rider	basic four foods, iodized salt	calcium, iron, iodine

4. Study the questions and answers on pages 3 and 4.

How to play

- Divide 4-H'ers into teams, each having about the same number of team members
- Each team should be in a different part of the room.
- You read the question. (Don't read the answer.)
- 4. Each team sends a member to pick up a copy of the question.
- Each team discusses, agrees on, and writes down the answer. A team member takes the written answer to the leader. (The team that's first with the correct answer gets extra points).
- 6. The leader asks teams to give their answers, in order of team

- finishing first, second, and third. Then the leader asks all teams "Which answer is correct?" "Why?"
- The leader keeps track of score for each team as game proceeds.
 - +5 for the correct answer given first
 - +4 for the correct answer given second, third, or fourth
- **8.** Repeat steps 3, 4, 5, 6, and 7 for each question.
- 9. Total the score.
- 10. Play the game again if there is time and interest. For review, play again at another meeting.



DREGON STATE UNIVERSITY EXTENSION SERVICE

Questions, answers, and discussion points

Iodine

1. Iodine is the mineral that prevents **goiter**.

Goiter is an enlarged thyroid gland located in the neck.
When you don't get enough iodine, the thyroid can't function properly. The thyroid gland tries to compensate by getting larger, causing a goiter.

 A horse and rider can't get enough of the mineral, iodine, from food alone.

> Oregon is in a "goiter belt." The soils of the Northwest are very low in iodine, so the food we eat is very low in iodine.

3. Where should the horse and rider get the iodine they need for good health?

Iodized salt. Buy salt in the box that says "iodized." It costs the same as "plain" salt.

 The amount of iodized salt a horse needs daily is about 3 ounces.

This amounts to about 1 to 1 1/3 pounds per week. The salt requirement will vary according to the temperature and amount of work the horse does.

Calcium

5. Two minerals important for strong bones and teeth are calcium and phosphorus.

Calcium and phosphorus make bones hard and strong.

 A horse ration of grass pasture, grass hay, and farm grains is usually deficient in calcium but adequate in phosphorus.

> A horse ration that is one half or more legume hay, such as alfalfa or clover, will be adequate in calcium. Because of differences in types of forages, horses should have access to special mineral supplements.

 A horse's mineral box should have two compartments. One compartment should contain iodized salt. The other compartment should contain bone meal or dicalcium phosphate mixed with salt.

Trace mineralized salt contains iodine as well as small amounts of other minerals. Mix steamed bone meal or dicalcium phosphate with salt in a ratio of two parts mineral to one part salt. Cover the mineral box to keep rain from getting into it.

8. A food that is especially rich in calcium is milk.

Milk is the only food in the typical American diet that provides lots of calcium. It's especially important for teenagers and children because they are growing. Foals also get most of their calcium and phosphorus from milk, but yearlings and horses get most of theirs from hay, grains, and a mineral supplement.

A teenager needs four servings of food from the milk group each day.

> A serving is an 8-ounce cup of milk. You can substitute other dairy products such as cheddar cheese, yogurt, and ice cream for part of the milk.

Iron

10. Iron is important to build hemoglobin in our blood.

Hemoglobin carries oxygen to our body cells. Without enough iron, the hemoglobin gets low, causing iron deficiency anemia. A person with anemia tires easily because not enough oxygen is carried through the blood to the body cells.

11. The age-sex group frequently deficient in iron is teenage girls.

Teenage girls and women have high iron needs because of iron lost through menstruation and also iron used during pregnancy. Frequently teenage girls don't eat enough of the four basic foods. Do you?



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MINE RALley Game Questions

Cut the questions apart. Clip copies of each question together.

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2.	A horse and rider can't get enough of the mineralfrom food alone.
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3.	Where should the horse and rider get the iodine they need for good health?
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4.	The amount of iodized salt a horse needs daily is
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5.	Two minerals important for strong bones and teeth and
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6.	A horse ration of grass pasture, grass hay, and farm grains is usually deficient inbut adequate in
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9.	A teenager needs servings of food from the milk group each day.
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10.	Iron is important to build in our blood.
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	Iron is important to build in our blood.
	Iron is important to build in our blood.
11.	The age-sex group frequently deficient in iron is the
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