USING ACTIVITY SHEET 2

Duplicate and distribute Activity Sheet 2. Compare the list of food sources for cattle with the recorded list on the chalkboard. Allow students to work in pairs or cooperative groups to process the information on this worksheet. Allow groups to report on their findings at the end of the lesson or the beginning of the next lesson. Encourage students to put into practice their application ideas for conserving and recycling.

Answers for Activity Sheet 2

Processing Information

Answers will vary. Student response should indicate that products inedible to humans are recycled into beef, milk and by-products, with manure used as a natural fertilizer to support growth of future feeds and foods.

Application

Answers will vary. Student response should include those products commonly recycled in your community. Creative conservation suggestions should be encouraged.

Find Out

1–2. Answers will vary. Accept responses that are supported with reasonable explanations.

USING ACTIVITY SHEET 3

Remind students of the opening riddle. Duplicate and distribute Activity Sheet 3. Allow students to read the material silently and highlight or underline new information. Discuss the part microorganisms and macro organisms play in decomposition. Challenge students to describe a world without decomposition. Compare earthworms and cattle as models of conservation. Challenge interested individuals to construct a mini compost bin and report their observations. Encourage students to report on ways they can reduce or use fewer resources.

Answers for Activity Sheet 3

Application

Answers will vary. Student responses may include turning off water while brushing teeth, walking instead of driving short distances, planning errands to cut down on gasoline use, car pooling, using both sides of paper, etc.

Find Out

1. Each worm contains both female and male reproductive systems, but fertilization still takes two!
2. Bacteria and other microorganisms need air and moisture to survive. They multiply in a dark, warm, moist environment. Decomposers work best at temperatures of 50° to 113°F (10° to 45°C). As decomposition progresses, temperatures may increase to 158°F (70°C).
3. Temperatures below 50°F and above 158°F hinder decomposition, as do dryness and bright light.

USING ACTIVITY SHEET 4

Duplicate and distribute Activity Sheet 4. Remind students of the three "R"s: Reduce, Reuse and Recycle. Challenge students to work together in pairs or cooperative groups to add to the list of nature's models for reusing, reducing or recycling. Allow groups to report their findings as you construct a classroom list on chart paper. Encourage students who have listed positive applications for reusing resources.

Answers for Activity Sheet 4

Answers may vary. Accept responses supported by reasonable explanation.

Application

Answers may vary.

USING ACTIVITY SHEET 5

This worksheet allows students to demonstrate their understanding of vocabulary and concepts contained in the worksheets and in the class discussion. Use as both a pre-test and post-test, if desired.

Answers for Activity Sheet 5

1. They consume inedible by-products and produce things humans can use, such as beef, milk and by-products.
2. Cattle, llama, sheep, goats, giraffes, oxen and camels are classified as ruminants.
3. Bacteria or fungi.
4. Earthworms, mites, grubs and insects are macroorganisms.
5. Bacteria and other microorganisms digest garbage that has been shredded by worms and other macroorganisms. Earthworms also eat bacteria and produce fertile castings which enrich the soil.

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