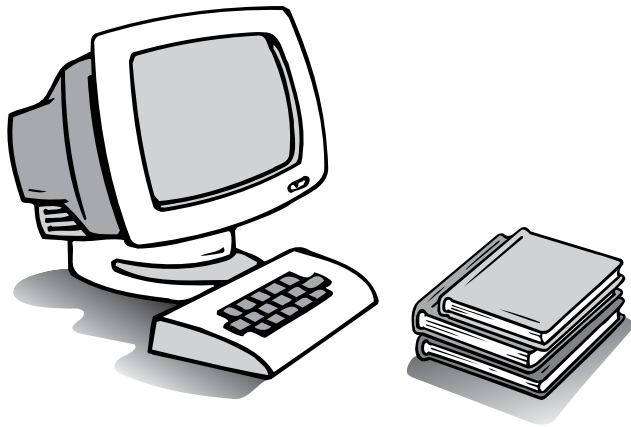
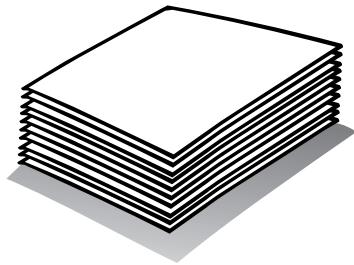


Saving Endangered Plants and Animals

WHAT YOU NEED



Internet or reference books



paper to make a ten-page
Endangered Species Journal

Find Out

Do this activity to identify the greatest threat to the survival of some species of plants and animals, and to see what can be done to prevent their extinction.

Process Skills

Classifying
Interpreting Data
Communicating

Time

- 30 minutes the first day
- 20 minutes a day for two weeks



WHAT TO DO

1. Look below at the list of threats to endangered species of plants and animals.

Threats to Endangered Species

- overhunted for their fur or other valued products
- habitat destruction
- wildlife trade

2. Set up ten pages like the one shown on the next page for an *Endangered Species Journal*.

3. Find an endangered species list on the Internet or in the library and select ten kinds of plants or animals to research. **Write** the names of the species you select at the top of your journal pages.
4. Complete a journal entry every day for two weeks.
5. When you finish, **classify** the kinds of plants and animals in your journal by the greatest threat to their survival.
6. **Interpret the data** and determine the greatest threat to survival among the sample you studied.
7. **Communicate** the results of your study to your classmates and compare results of their studies with yours.



Name of Species:

Description:

Where It Lives:

Greatest Threat to Survival:

Steps to Prevent Extinction:

Conclusions

1. Among the kinds of plants and animals you studied, what was the biggest threat to their survival, and what steps are being taken to save them from becoming extinct?

Answers may vary but may include that the species was overhunted or the species' habitat was destroyed. Students may cite national and international organizations that work to prevent extinction.

2. Was the result of your study the same as your classmates'?

Answers may vary but students' studies should contain similarities.

New Questions

1. How can people become and stay informed about endangered species that live in their state or region?

Students' answers should include that reading newspapers and contacting state and local government offices are two sources of information.

2. Write a new question you have about endangered species.

Questions will vary.





ACTIVITY

Cleaning Up Oil Spills

Try to remove the oil from the water. **Experiment** by using a different material (cotton balls, paper towels, or mesh) to remove the oil from each pan. Use only one material to remove the oil from each of the pans. Set the timer and allow yourself exactly four minutes to remove the oil from each of the pans. **Observe** what happens as you try to remove the oil with each of the materials.

Record your observations.

Results and observations will vary.

Name _____

Conclusions

- 1 Were you able to remove any oil with the different materials? How can you tell?

Answers will vary. Students may mention that they could see oil on the materials they used.

- 2 Were you able to remove all of the oil with any of the materials? How can you tell?

Answers will vary. Students may mention that it was difficult or impossible to remove all of the oil from the water. Students may mention that they could see oil on the materials they used.

- 3 How is this activity like cleaning up an oil spill in the ocean? How is it different?

Accept all reasonable answers.

Asking New Questions

- 1 What might cause oil to spill in the ocean?

Answers may include leaks from oil wells and oil-cargo ships.

- 2 How might the spill affect fish, birds, and plants that live in or near the ocean?

Oil might get into the food chain, soak bird feathers so birds cannot fly, get into fish gills, and get into animals' fur.

- 3 Why is oil harder to clean up than water?

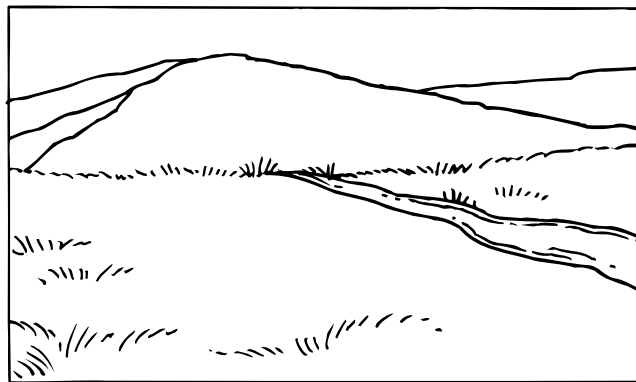
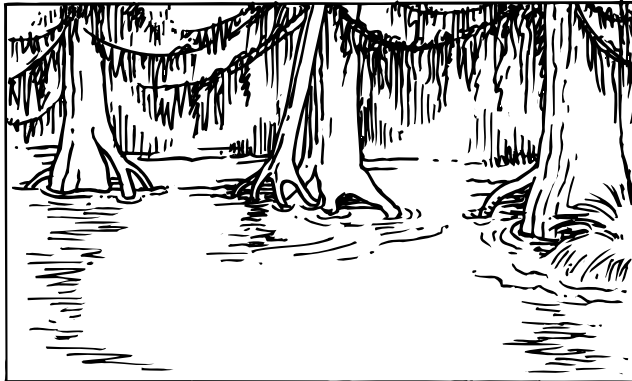
Oil is more difficult to absorb than water, oil moves easily over the surface of water, and oil does not evaporate into the air as water does.



ACTIVITY

Drawing Animal Adaptations

Draw your swamp creature in the first box. Use the other boxes to show how the creature might change.



Explain how the creature's changes helped it to be adapted to its environment. What kind of habitat would the creature need to survive?

Answers will vary. Students should explain each of the changes they made to their drawings in terms of adaptations for survival. Habitats will vary based on students' drawings.

Name _____

Conclusions

1 Share the pictures you drew with a classmate.
Drawings will vary.

2 Ask your classmate to list the changes in each picture.
Answers will vary based on students' drawings.

3 Ask your classmate to name other changes that might have helped your creature adapt over millions of years.
Answers will vary based on students' drawings.

Asking New Questions

1 What might cause your creature to make further changes?
further changes in the creature's environment

2 What would life on Earth be like today if dinosaurs *had* been able to adapt to change?
Answers will vary but should reflect the idea that dinosaurs would be a formidable species for humans to contend with.



ACTIVITY

Investigating What Happens in a Greenhouse

Read the thermometer and **record** the temperature in the box.

Put the box where it will receive direct sunlight. Wait 10 minutes. **Read** the thermometer and **record** the temperature.

Remove the box from the direct sunlight. Wait for the box to return to the original room temperature. Then, place the lid on the box and return the box to the sunlight. Wait 10 minutes. **Read** the thermometer and **record** the temperature.

Repeat the activity and **record** each temperature reading under the heading “Second Measurements.”

| First Measurements | Second Measurements |
|--------------------|---------------------|
| | |

Conclusions

- 1** Compare the air temperatures in the plastic boxes.
The covered box has a higher air temperature than the open box.

- 2** Based on your measurements, which plastic box is like a greenhouse?
The covered plastic box is like a greenhouse.

- 3** How is your model like the greenhouse effect on Earth? How is it different?
Like the box with the plastic lid, gases in Earth's atmosphere absorb energy from the sun. They also block the escape of energy given off by Earth's surface, causing our planet's temperature to rise. Earth is larger than the model and has bodies of water and different landforms which affect temperature.

- 4** Were your measurements the same the second time you made them?
Student responses may vary. Results of similar scientific investigations seldom turn out exactly the same because of differences in the things being investigated, methods being used, or uncertainty in the observation. Students may wish to repeat their measurements several times to improve the accuracy of their data.

Asking New Questions

- 1** What would happen if you used water in the plastic boxes instead of soil? Develop a plan to answer this question. Test your answer.
Student plans may vary. Students should find that the covered container of water would have a higher temperature than the open container.