

Physical
Earth and Space
Life

LESSON 50 EARTH DAY—APRIL 22

Identifying sources of water and air pollution Identifying ways to avoid polluting the environment

Lesson Preparation

Program Materials

- Lesson Activity 50
- Optional: Photographs of water and air pollution available at www.nancylarson.com under Teacher and Student Links, *Science 3*, Lesson 50, or on the Teacher Resource CD
- Science Word List D

Collected Materials

- Copy paper or board
 - White construction paper or copy paper
 - Crayons or markers
 - Optional: Obtain information and/or brochures about hazardous waste disposal sites in your area.
- **Note:** If lesson is taught immediately after Lesson 49, assist your child as he/she fills in today's weather information on page 15 in his/her booklet.

The Lesson

"April 22 is Earth Day."

"Earth Day is a special day when people think about how they can help protect the Earth's natural resources."

"Water and air are two of the Earth's natural resources."

"Water and air are things that all plants and animals, including human beings, need to live."

"To stay healthy, we need to drink clean water and breathe clean air."

"When water and air are not clean, we say they are polluted."

"Let's read about what causes water and air pollution."

- Hand Lesson Activity 50 to your child.

"Follow along as I read paragraphs 1 and 2."

- Read the following to your child as he/she follows along.

Human beings need clean water to drink and clean air to breathe. Polluted water and air can cause illnesses. Polluted air can also cause breathing problems.

Water pollution is often caused by things people throw or dump into water. When people throw garbage and trash into water, the garbage can pollute the water and make it difficult for the animals and the plants living in the water to survive. Garbage and trash can also contaminate the water and make it unsafe to drink. It is important to keep garbage and trash away from streams, rivers, and lakes to avoid polluting the water.

“Have you ever seen garbage or trash dumped in water?”

“Where did you see this polluted water?”

- Allow time for your child to share experiences.

“Many things people use every day can cause water pollution.”

“Let’s read about other ways water can become polluted.”

“Follow along as I read paragraphs 3–5.”

- Read the following to your child as he/she follows along.

Oil and gasoline spilled on the ground or in water can pollute water. It is important to handle oil and gasoline carefully to avoid spilling them on the ground or in water.

Chemicals people put on the ground, such as weed killers and insecticides, can be washed into streams, rivers, and other water supplies when it rains. Poisonous chemicals can pollute the water. To avoid polluting the water, it is important to follow directions carefully when using chemicals.

Some everyday materials, such as paint, also contain chemicals that can pollute water. Materials containing dangerous chemicals should not be thrown in the trash or dumped down storm drains. Hazardous materials, such as oil and paint, should be taken to a hazardous waste recycling center to be disposed of safely.

“We should never dump oil or any chemical down storm drains.”

“Storm drains carry water to rivers and oceans.”

- **Teacher Note:** Storm drains are also referred to as storm-water catch basins.

“Oil and chemicals dumped in storm drains cause water pollution.”

- **Optional:** If your community has a hazardous waste collection site, provide information about the site to your child.

“Let’s read about air pollution.”

“Follow along as I read paragraphs 6 and 7.”

- Read the following to your child as he/she follows along.

In addition to drinking clean water, it is important to breathe clean air. Smoke can pollute the air and make it difficult for people to breathe. Many towns do not allow people to burn leaves, garbage, or trash. When leaves, garbage, or trash are burned, they produce molecules of carbon. These molecules of carbon enter the air and cause air pollution.

Exhaust fumes from cars, trucks, and factories contain chemicals that pollute the air. Some of these chemicals react with other chemicals in the atmosphere to form ozone. Small amounts of ozone in the air around us can irritate our eyes and lungs, and can damage plants and trees.

“Where have you seen polluted air?”

- Allow time for your child to share experiences.

“What are some things human beings can do to protect our air and water?”

- Write your child’s suggestions on copy paper or the board.

“At the bottom of your paper, write about a time when you have seen pollution.”

“Then explain what you think people should do about this problem.”

- If necessary, remind your child to use complete sentences.

“When you finish writing, you will make a poster showing something people can do to help prevent water or air pollution.”

- Hand construction paper/copy paper and crayons or markers to your child.
- Allow time for your child to create his/her poster.
- **Optional:** Show your child photographs of water and air pollution from the Teacher Resource CD or our website.
- Write the words natural resources and pollution on Science Word List D.

“What is something you learned in today’s science lesson?”

Name _____

Date _____

Lesson Activity 50
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Water and Air Pollution

¹ Human beings need clean water to drink and clean air to breathe. Polluted water and air can cause illnesses. Polluted air can also cause breathing problems.

² Water pollution is often caused by things people throw or dump into water. When people throw garbage and trash into water, the garbage can pollute the water and make it difficult for the animals and the plants living in the water to survive. Garbage and trash can also contaminate the water and make it unsafe to drink. It is important to keep garbage and trash away from streams, rivers, and lakes to avoid polluting the water.

³ Oil and gasoline spilled on the ground or in water can pollute water. It is important to handle oil and gasoline carefully to avoid spilling them on the ground or in water.

⁴ Chemicals people put on the ground, such as weed killers and insecticides, can be washed into streams, rivers, and other water supplies when it rains. Poisonous chemicals can pollute the water. To avoid polluting the water, it is important to follow directions carefully when using chemicals.

⁵ Some everyday materials, such as paint, also contain chemicals that can pollute water. Materials containing dangerous chemicals should not be thrown in the trash or dumped down storm drains. Hazardous materials, such as oil and paint, should be taken to a hazardous waste recycling center to be disposed of safely.

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Lesson Activity 50
Science 3 Lesson 50

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⁷ Exhaust fumes from cars, trucks, and factories contain chemicals that pollute the air. Some of these chemicals react with other chemicals in the atmosphere to form ozone. Small amounts of ozone in the air around us can irritate our eyes and lungs, and can damage plants and trees.

Describe a time when you have seen pollution.

Explain what you think people should do about this problem.

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Name _____

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Describe a time when you have seen pollution.

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Science Word List D

Investigating Changes in Our Environment