



Social Studies Virtual Learning

Geography

April 14, 2020



Geography

Lesson 17: April 14, 2020

Objective/Learning Target: What is Pollution?

Warm Up

How long do you think it takes the following items to decompose? Write down your guesses on a piece of paper. Answers on the next page.

Paper

Orange Peel

Plastic Bag

Glass Bottle

Styrofoam

Decompose: To break down. In this case, if a plastic bag was littered, how long would it take to break down?

Warm Up

Answers

Paper **2-4 weeks**

Orange Peel **6 months**

Plastic Bag **15 years**

Glass Bottle **500 years**

Styrofoam **Never**

Lesson Activity

Pollution is the introduction of harmful materials into the environment. There are six main types of pollution. By looking at the pictures and text on the next couple of slides, see if you can identify the type and causes of pollution.

Types of Pollution



1. Type of pollution?
2. What do you think causes this type of pollution?

Sometimes, air pollution is visible. A person can see dark smoke pour from the exhaust pipes of large trucks or factories, for example. More often, however, air pollution is invisible.

Polluted air can be dangerous, even if the pollutants are invisible. It can make people's eyes burn and make them have difficulty breathing. It can also increase the risk of lung cancer.

Most air pollution is not natural. It comes from burning fossil fuels—coal, oil, and natural gas. When gasoline is burned to power cars and trucks, it produces carbon monoxide, a colorless, odorless gas. The gas is harmful in high concentrations, or amounts. City traffic produces highly concentrated carbon monoxide.

Types of Pollution



3. Type of pollution?

4. What causes this type of pollution?

Some polluted water looks muddy, smells bad, and has garbage floating in it. Some polluted water looks clean, but is filled with harmful chemicals you can't see or smell.

Polluted water is unsafe for drinking and swimming. Some people who drink polluted water are exposed to hazardous chemicals that may make them sick years later. Others consume bacteria and other tiny aquatic organisms that cause disease. The United Nations estimates that 4,000 children die every day from drinking dirty water.

Sometimes, polluted water harms people indirectly. They get sick because the fish that live in polluted water are unsafe to eat. They have too many pollutants in their flesh

Types of Pollution



Many of the same pollutants that foul the water also harm the land. Mining sometimes leaves the soil contaminated with dangerous chemicals.

Pesticides and fertilizers from agricultural fields are blown by the wind. They can harm plants, animals, and sometimes people. Some fruits and vegetables absorb the pesticides that help them grow. When people consume the fruits and vegetables, the pesticides enter their bodies. Some pesticides can cause cancer and other diseases.

5. Type of pollution?
6. What causes this type of pollution?



Light pollution is the excess amount of light in the night sky. Light pollution, also called photopollution, is almost always found in urban areas. Light pollution can disrupt ecosystems by confusing the distinction between night and day. Nocturnal animals, those that are active at night, may venture out during the day, while diurnal animals, which are active during daylight hours, may remain active well into the night. Feeding and sleep patterns may be confused. Light pollution also indicates an excess use of energy.

7. Type of pollution?
8. What causes this type of pollution?



Noise pollution is the constant presence of loud, disruptive noises in an area. Usually, noise pollution is caused by construction or nearby transportation facilities, such as airports.

Noise pollution is unpleasant, and can be dangerous. Some songbirds, such as robins, are unable to communicate or find food in the presence of heavy noise pollution. The sound waves produced by some noise pollutants can disrupt the sonar used by marine animals to communicate or locate food

9. Type of pollution?

10. What causes this type of pollution?



The air inside your house can be polluted. Air and carpet cleaners, insect sprays, and cigarettes are all sources of indoor air pollution.

11. What type of pollution?
12. Sources of this type of pollution?

Answers

1. Air Pollution
2. Natural disasters and the burning of fossil fuels are the two most common ways,
3. Water Pollution
4. Natural sources, chemicals and oils from factories, mining and drilling, oil spills, buried chemical waste, fertilizer used in agriculture, garbage.
5. Land Pollution
6. Mining, use of pesticides and fertilizers, trash
7. Light Pollution
8. Usually located in urban areas...lighting from street lights, signs, etc.
9. Noise Pollution
10. Construction, transportation facilities (airports), cars and trucks
11. Indoor Air Pollution
12. Air and carpet cleaners, insect sprays, cigarettes

Practice

1. What causes pollution?
 - a. Cars
 - b. Animals
 - c. Factories
 - d. A and C only
2. How many people die of air pollution around the world each year?
 - a. 50,000
 - b. 1 million
 - c. 3 million
 - d. 500,000
3. This type of pollutant causes acidification of rivers, lakes, and also damages tree foliage and degrades soil quickly.
 - a. Ozone layer
 - b. Acid rain
 - c. Oil
 - d. None of the above
4. What cause of land pollution uses chemicals such as pesticides and herbicides?
 - a. Garbage
 - b. Landfills
 - c. Mining
 - d. Farming

Practice

5. Around how much trash does the average person in the United States produce each day?

- a. 2 ounces
- b. 1 pound
- c. 2 pounds
- d. 4.5 pounds
- e. 6 pounds

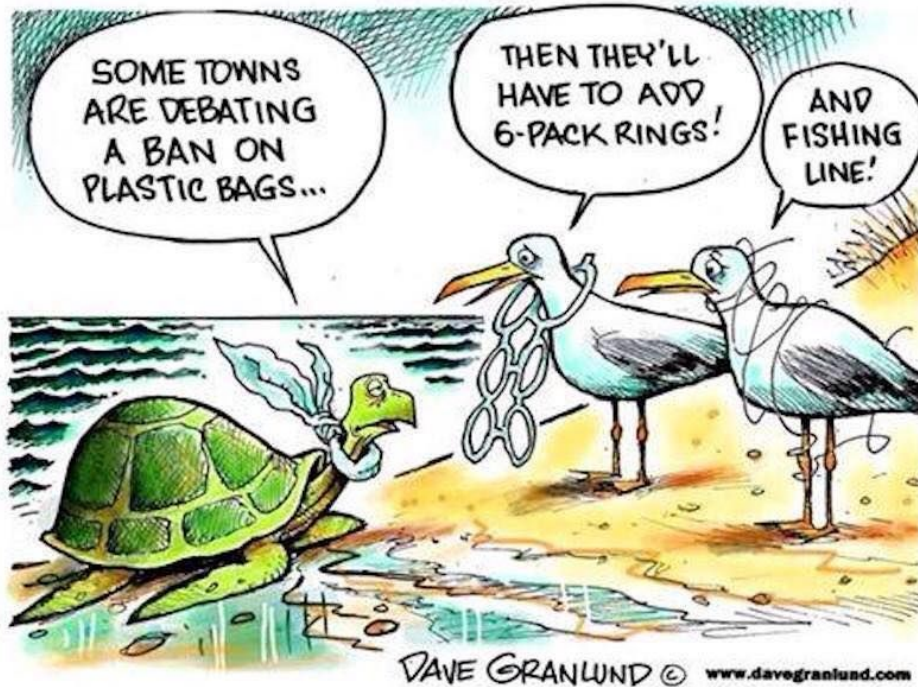
6. What disease could be caused by noise pollution?

- a. Asthma
- b. High blood pressure
- c. Brain tumor
- d. blindness

Practice Answers:

1. D 2. C 3. B 4. D 5. E 6. B

Reflection



1. What would be some other areas of concern of pollution for sea animals?

Possible Answers:

Chemical waste, air pollution (global warming), light and noise pollution from coastal cities.