

NATURAL PHENOMENA

REM 453

A TEACHING RESOURCE FROM...



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ILLUSTRATIONS
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INTRODUCTION

Students will be captivated by the factual, high-interest stories in this book about all kinds of extraordinary occurrences in nature. They will read about avalanches, dust storms, tidal waves, earthquakes, floods, and more. Each story is followed by comprehension questions to check understanding. A crossword puzzle relating to each story provides a fun activity that also tests the reader's attention to details, descriptions, and facts in the story. An answer key is included.

Natural Phenomena was designed for use in grades 4-8. Readability is on the 3rd-4th-grade level.

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DUST STORMS: Colorful Swirls

If you had lived during the 1930's, you would have heard people talk about the Dust Bowl. This was not a dish filled with dirt. Neither was it a football game.

The Dust Bowl was a series of harsh dust storms. They lasted for three years. The storms carried heavy, blowing dust across eight states.

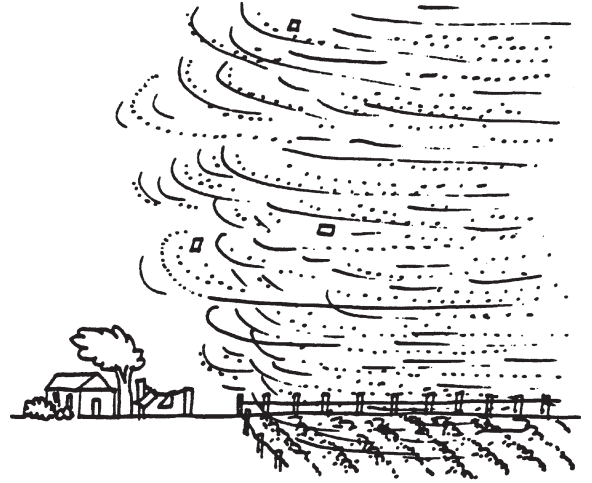
People claimed they could tell where the dust came from by its color. Red was from Oklahoma, and brown was from Kansas. Yellow was from Texas and New Mexico.

These dust storms formed because the ground had been stripped bare. Poor farming and over-grazing by cattle weakened the soil. Then, three years of droughts followed. No crops or plants were left to slow down the force of the wind.

The wind grabbed the dust from flat lands and carried it for hundreds of miles. Thousands of people could no longer farm and had to move.

Dust storms still strike. Thousands of tons of dust may be lifted in the air by winds blowing at 25 miles an hour. The dust reaches heights of 10,000 feet.

In 1883, giant dust storms fell after a huge volcano exploded. That same night, the sky turned copper. It rained dust on a ship 700 miles away. Green and purple sunsets were reported for the next three years!



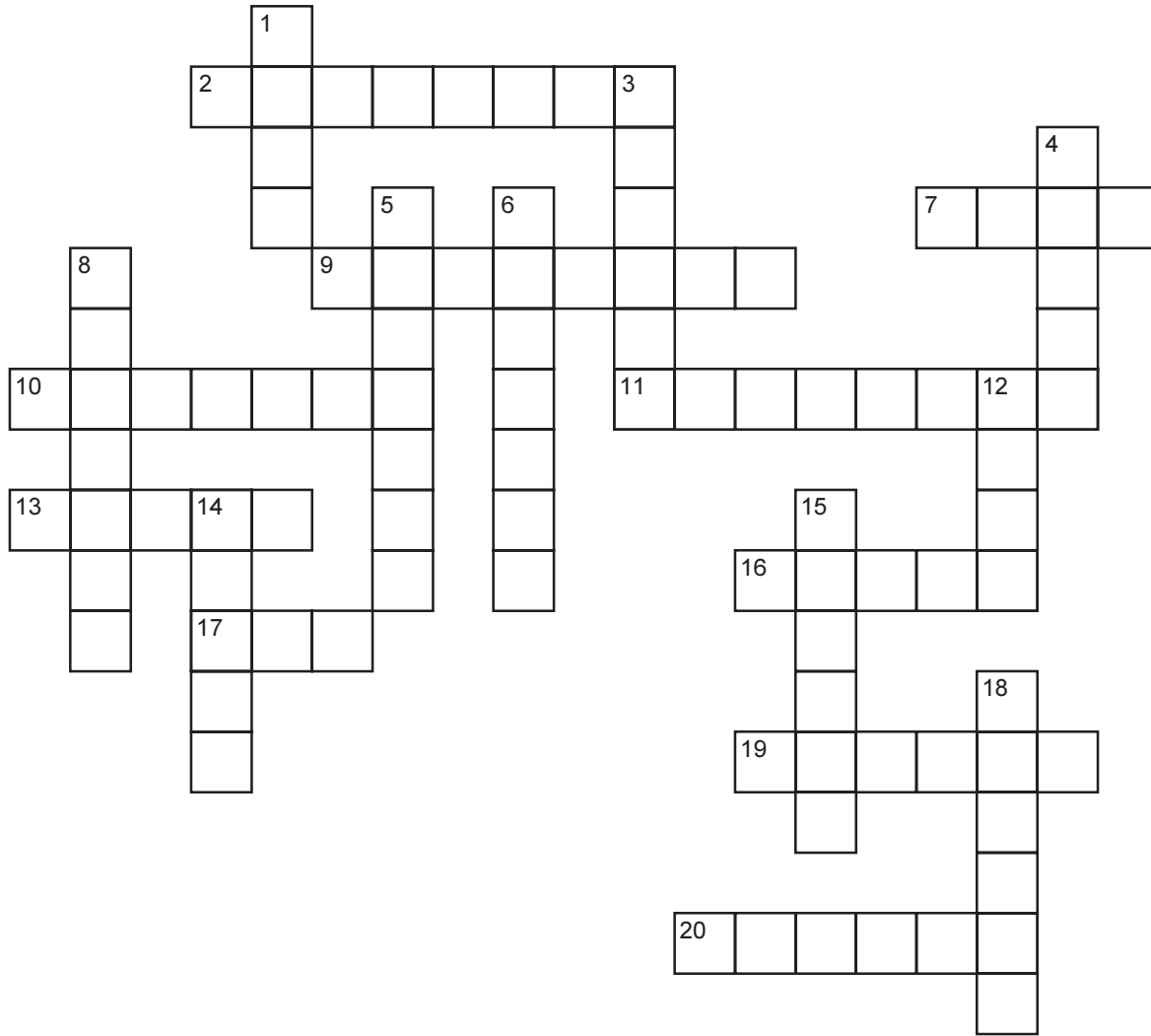
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1. What was the Dust Bowl? _____

 2. How long did the Dust Bowl last? _____
 3. What caused the Dust Bowl? _____

 4. What is a word that means "unpleasant or not gentle"? _____
 5. What is a word that means "reddish-brown or the color of a penny"? _____

Name _____

DUST STORMS: Crossword Puzzle



ACROSS CLUES:

2. The Dust Bowl was not a _____ game.
7. The ground had been stripped _____.
9. The colorful sunsets were _____ for three years.
10. Over- _____ by cattle also hurt the soil.
11. Three years of _____ came before the Dust Bowl.
13. The Dust Bowl carried dust across _____ states.
16. Because of the Dust Bowl, people lost their _____.
17. _____ dust came from Oklahoma.
19. _____ dust was from Texas.
20. The volcano caused green and _____ sunsets.

DOWN CLUES:

1. During the 1930's, people talked about the Dust _____.
3. The Dust Bowl _____ for three years.
4. Poor farming meant that no _____ could stop the wind from lifting the soil.
5. The dust in a storm may reach _____ of 10,000 feet.
6. In 1883, a huge _____ exploded.
8. One reason the soil was weakened was poor _____.
12. In a dust storm, thousands of _____ of dust may be lifted into the air.
14. The Dust Bowl was a series of _____ dust storms.
15. After the volcano, it _____ dust.
18. The volcano turned the sky a _____ color.

POLLUTION: Dirt and Grime in the Air

In the mid-1980's, the Statue of Liberty was closed for more than a year. During that time, she received a "bath." One hundred years' worth of dirt was removed. The dirt was caused by air pollution.

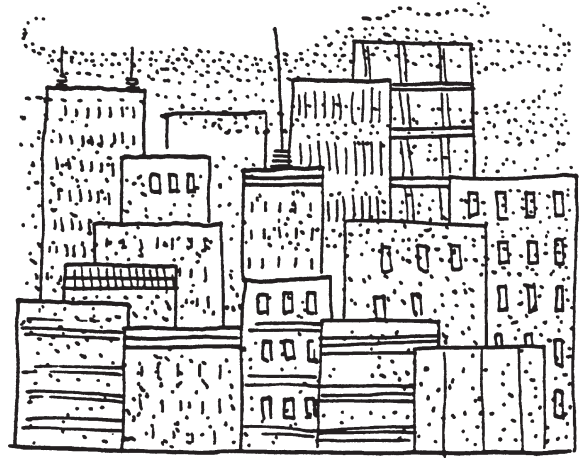
If pollution can make a statue grimy, think what it can do to a person's lungs. Pollution comes from many sources. Some of the common ones are smoke, paper, dust, soot, grime, fumes, paint, even rubber from car tires. These things break into tiny particles that swirl in the air.

Pollution gives you a sore throat and makes your eyes sting. You may also get a headache and feel dizzy. Often you can't breathe quite right.

In big cities like Los Angeles, most pollution comes from car fumes. Mixed with sunlight, these fumes form smog. Smog gets trapped in the air and doesn't blow away easily.

New York City once had a week of horrible smog. Schools were closed. Two boats that could not see each other collided in the harbor. Hospitals admitted patients who couldn't breathe. Finally, a strong wind blew the smog toward the ocean.

During December, 1953, 4,000 residents of London died from air pollution. London's problems were caused by the soft coal they burned for fuel. Since then, they have switched to hard coal. Today, London has 50 percent more sunny days than they had just a few years ago.

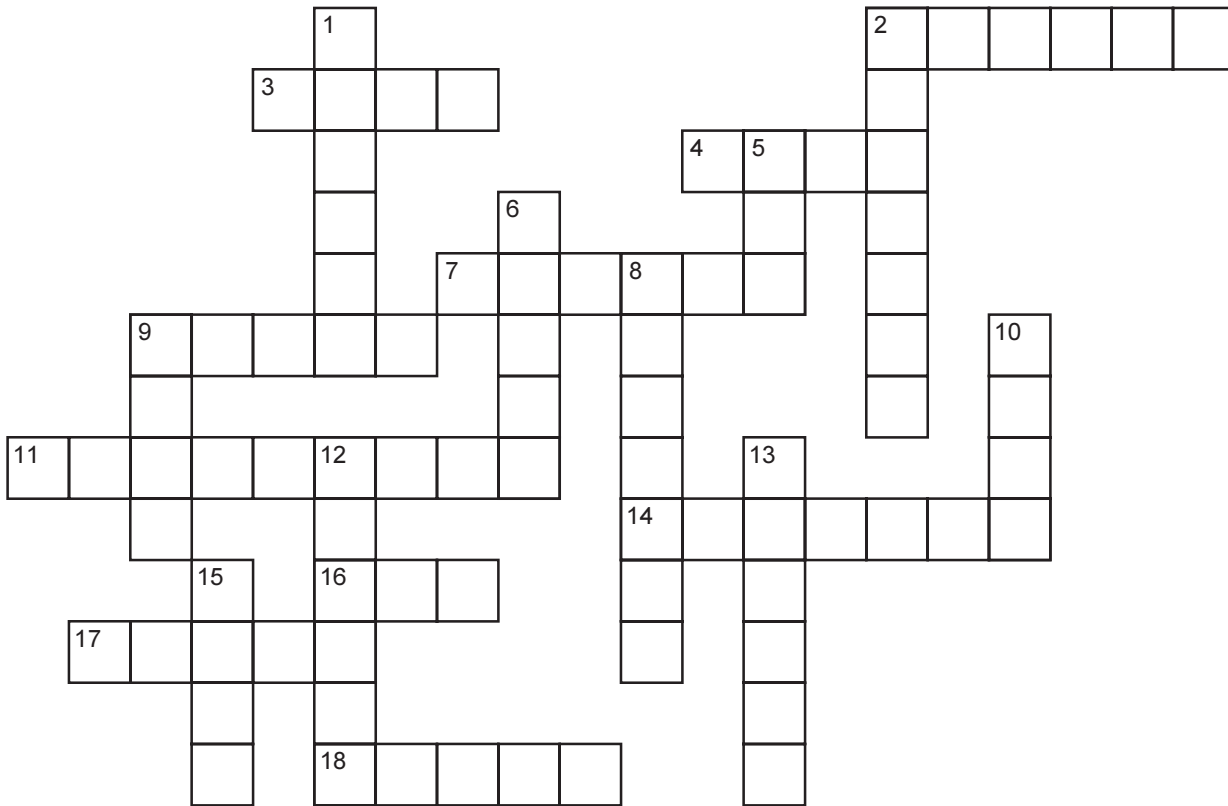


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1. What made the Statue of Liberty so dirty? _____
 2. What bad things does pollution do to you? _____

 3. What causes smog? _____
 4. What caused the pollution in London in 1953? _____
 5. What is a word that means "came into violent contact"? _____
 6. What is a word that means "accepted or allowed to enter"? _____

Name _____

POLLUTION: Crossword Puzzle



ACROSS CLUES:

2. New York's horrible smog was blown away by a _____ wind.
3. London's pollution came from burning _____ coal.
4. The Statue of Liberty received a _____.
7. One source of pollution is _____ from car tires.
9. Air pollution makes your eyes _____.
11. Smoke, paper, dust, and grime break into tiny _____.
14. Smog gets _____ in the air.
16. The dirt on the statue had collected for _____ hundred years.
17. Smog comes from car _____.
18. Pollution can make you _____.

DOWN CLUES:

1. One time, 4,000 people in _____ died from air pollution.
2. When New York City had a smog problem, _____ were closed.
5. The dirt on the statue was caused by _____ pollution.
6. Pollution can bother a person's _____.
8. Because of pollution, you may find it hard to _____.
9. If you are outside in air pollution, you may get a _____ throat.
10. Today, London burns _____ coal.
12. In the mid-1980's, the Statue of Liberty was _____.
13. Two boats collided in the _____.
15. In Los Angeles, pollution is often called _____.

Name _____

FOREST FIRES: Flames That Kill

A long time ago, all forest fires started with lightning. But now, 95 percent of them begin with people. Most are caused by campfires and cigarettes. Each year, 125,000 fires destroy 12 million acres of our precious trees.

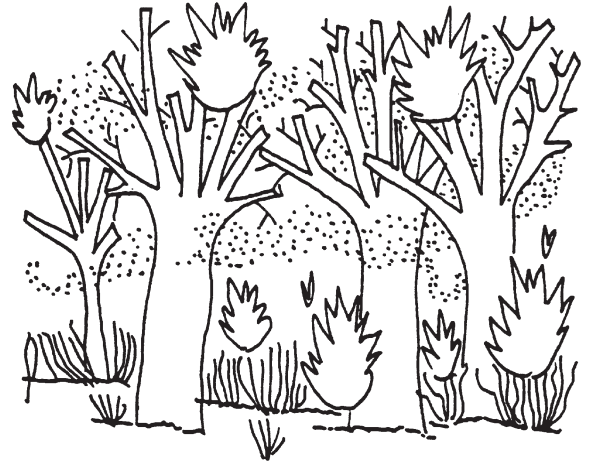
Forest fires take lives. They take away the beauty of the land, too. Fires kill grass and make it easier for floods to happen.

All forest fires begin as surface fires which burn leaves and plants on the ground. When the flames become very hot, everything underground is charred, too. This is called a “ground” fire.

During a crown fire, the flames spread from treetop to treetop. Blown by the wind, hot cinders land on trees several miles away. This causes soot fires to break out.

Forest rangers watch for fires from tall lookout towers. If they spot one, trained ground crews are called. They are joined by smoke jumpers who parachute into hard-to-reach places. The crews dig ditches called firebreaks. These trenches keep the fire from spreading. The crews also use water hoses which may be dropped from helicopters.

During a blaze in the 1950’s, an orphaned bear cub was found. “Smokey Bear” became a symbol. He warns people to be careful in the forest. This has been a successful step in preventing forest fires.



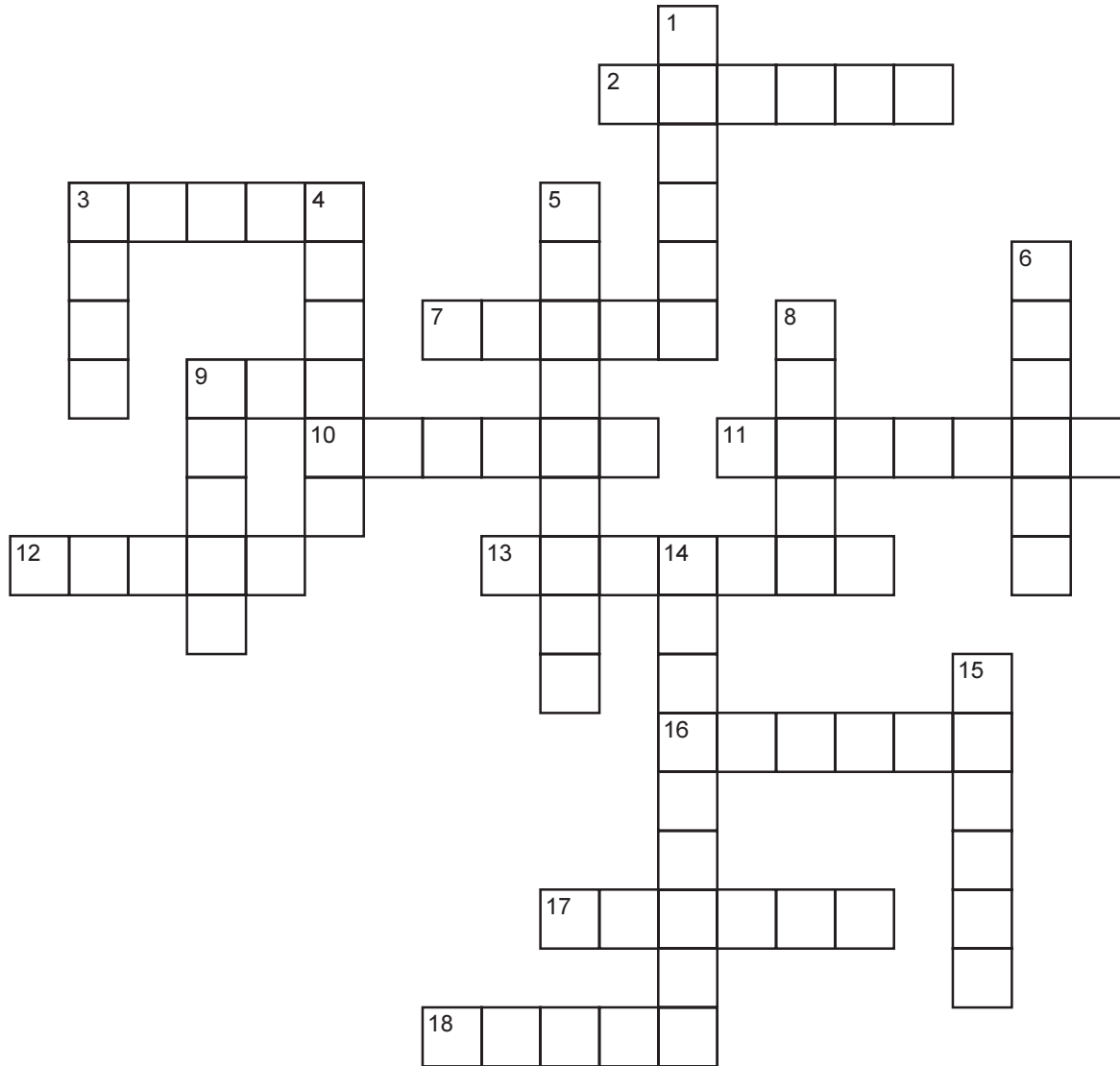
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1. What causes most forest fires today? _____

 2. What do all forest fires start out as? _____
 3. What kind of fire spreads from the treetops? _____
 4. What do we call people who parachute into forest fire areas? _____

 5. What is a word that means “very valuable or important”? _____

Name _____

FOREST FIRES: Crossword Puzzle



ACROSS CLUES:

2. Without grass, _____ can easily happen.
3. Smokey _____ people to be careful.
7. In one year, forest fires will burn 12 million _____.
9. Smokey was a bear _____.
10. Because he had no parents, Smokey was an _____.
11. Rangers do their jobs in _____ towers.
12. Treetop fires that spread are called _____ fires.
13. The fire fighters dig firebreaks, which are _____.
16. Today, _____ cause most fires.
17. At one time, all _____ fires started with lightning.
18. Forest fires take _____.

DOWN CLUES:

1. Surface fires burn leaves and _____.
3. Cinders blown by the _____ cause soot fires.
4. Over the years, Smokey has become a _____.
5. A firebreak may keep the fire from _____.
6. When things underground are charred, the fire is a _____ fire.
8. In the air, _____ jumpers parachute from planes.
9. On the ground, trained _____ fight the fires.
14. One way fires begin is through _____.
15. Forest fires take away the land's _____.