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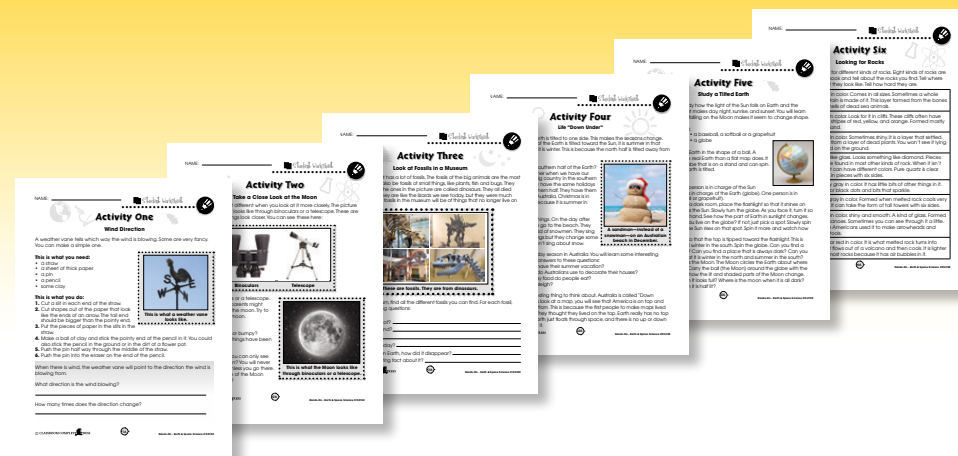
🍎 TEACHER GUIDE

✏️ STUDENT HANDOUTS

EZ✔ EASY-MARKING™ ANSWER KEY

COLOR MINI POSTERS

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Humans and the Environment

1. Put a check mark (✓) next to the answer that is the most right.

a) What do people build to keep towns from flooding?

○ **A** Small hills beside rivers.
○ **B** Solar cells.
○ **C** Water wheels.
○ **D** Storm cellars.

b) What is making Earth warmer?

○ **A** Burning fuels.
○ **B** Animals dying.
○ **C** Using solar cells.
○ **D** Windmills spinning.

c) Why is it better to use windmills than to burn wood?

○ **A** Wood fires are too hot.
○ **B** Burning wood is harmful.
○ **C** Windmills don't change the air.
○ **D** Windmills make a nice breeze.

2. Circle T if the sentence is True or F if it is False.

T F **a)** Cool is a fuel.

T F **b)** Burning fuels changes the air.

T F **c)** Many animals are moving south to get warm.

T F **d)** Burning fuel is the only way to get energy.

PREASSESSMENT

Humans and the Environment

People can be found living almost everywhere except very cold places. It is very cold in the far north and far south. We know how to build houses that stay warm in cold places. We know how to build houses that stay cool in hot places.
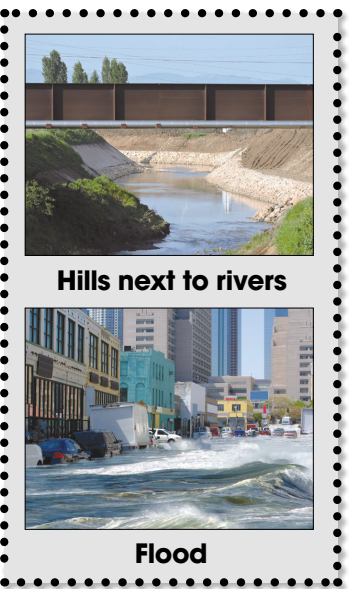
Plants and animals are not so lucky. Each plant and animal is meant for its own special place. All the things in a place put together are called an **environment**. In a cold place, animals have thick fur to keep them warm. Plants can get frozen and still live. In a hot, dry place, plants can save water to use when it doesn't rain. Animals in hot places live under the ground. Some only come out at night when it is cool.

🛑 STOP **People can live almost anywhere in the world. Why?**
_____
_____

Earth's weather is changing. Most places are getting warmer. Some places are getting wetter. Some are getting drier. Some animals can move when the weather changes. Some animals can't move, or they can't find a place they like. Changing weather can kill some plants because they can't move like animals can.

People have many ways to be safe when weather changes. If it rains a lot, there can be floods. This can turn towns into lakes. To keep floodwater away, people build long hills along both sides of the rivers. In some places the wind can be strong enough to blow people away. In these places, people have built rooms under the ground, called **storm cellars**. When there is a big wind storm, people go into their storm cellars until the wind calms down.

Hills next to rivers

Flood

READING PASSAGES

Humans and the Environment

1. Finish each sentence with a word from the list.

environment	fuels	solar	cellars

a) The Earth is getting warmer because people are burning _____.

b) In places with high winds, people have built storm _____.

c) We can get energy from the Sun with _____ cells.

d) All the things where an animal lives is its _____.

2. Put a check mark (✓) next to the answer that is the most right.

a) Which way of getting energy changes the air?

○ **A** burning wood
○ **B** windmills
○ **C** solar cells
○ **D** water wheels

b) Which helps some plants live in a desert?

○ **A** They can save water.
○ **B** They have big leaves.
○ **C** They have small roots.
○ **D** They grow underground.

c) Which helps an animal live where it is cold?

○ **A** big feet
○ **B** thick fur
○ **C** small ears
○ **D** good eyes

COMPREHENSION QUESTIONS

Humans and the Environment

3. Answer the questions in full sentences.

a) The weather can change in some places. Why is this harder for animals than for people?

_____
_____
_____

b) A city can get all the energy it needs without burning fuels. How?

_____
_____
_____

Extension & Application

4. Get into groups of 3 or 4. As a group, decide to make either a solar cell, a windmill, or a water wheel. When you've made your choice, do some research. Find out how it works. From there, make a basic version of your solar cell, windmill or water wheel. What are the basic functions? How does it turn the Sun, the wind, or water into energy?

Test out your device. Does it work? What problems did your group have during this process? What would you have done differently?

Show your device to the rest of the class. What did you do differently?

Based on your experience, what do you now know about solar, wind, or water energy? What are you still not sure about?

SHORT ANSWER QUESTIONS

Energy from the Sun

In this experiment, you will use energy from the Sun to heat water.

This is what you will need:
• a black plastic bag   • a clear plastic bag   • water

This is what you do:
1. Put cold water in both bags.
2. Tie the tops of the bags shut so the water can't get out.
3. Put both bags in bright sunlight.
4. Wait a few hours.
5. Open the clear bag and feel the water inside.
6. Open the black bag and feel the water inside.

1. How has the water in the bags changed after they were left in the sunlight?

_____

_____

2. How was the water in the two bags different?

_____

_____

3. Light energy bounces off light colored things. Light energy goes into dark colored things. How does this prove what you noticed about the differences?

_____

_____

HANDS-ON EXPERIMENTS

Crossword Puzzle!

Across
1. Melted rock underground.
4. The kind of weather a place has over the whole year.
5. Melted rock that comes out of a volcano.
8. The home of plants and animals.
10. Water turning into a gas.
15. Water taking away dirt.
16. Rocks form with one _____ on top of another.
17. Rocks that formed from bones and shells.

Down
1. This climate has rainy winters and dry summers.
2. The oceans are full of it.
3. Energy from flowing water.
4. Fluffy things up in the sky.
6. Energy from the Sun through _____ cells.
7. This place has sand dunes and not much rain.
9. "Partly cloudy with a chance of rain" is an example of a _____ report.
11. A rock that is made of just one kind of thing.
12. This falls from the sky and can hurt if it hits you.
13. What is left of something that died long ago. It has turned to rock.
14. Winter is one of the four _____s.
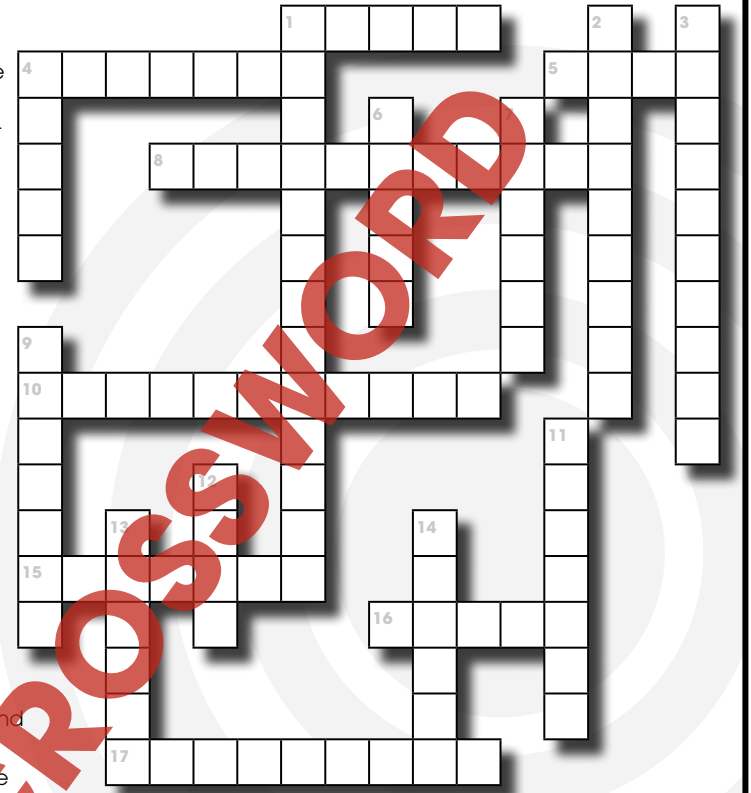
Word List

climate	hail	mineral
cloud	lava	salt water
desert	layer	season
environment	limestone	solar
erosion	magma	water wheel
evaporation	Mediterranean	weather
fossil		

CROSSWORD

Comprehension Quiz

Part A   25

Circle **T** if the sentence is TRUE or **F** if it is FALSE.

T F 1) Clouds are a gas that we can see.
T F 2) Summer comes after spring.
T F 3) A Mediterranean climate has rainy winters.
T F 4) The Moon is a planet.
T F 5) All places on Earth get about the same amount of rain.
T F 6) Erosion is a problem for farmers.
T F 7) A city can get all its energy from the Sun.

7

Part B

Put a check mark (✓) next to the answer that is the most right.

a) Which is precipitation?

○ A evaporation
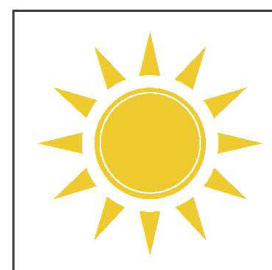○ B lava
○ C shadow
○ D snow

b) Most of Earth's water is _____.

○ A frozen
○ B in rivers
○ C in the oceans
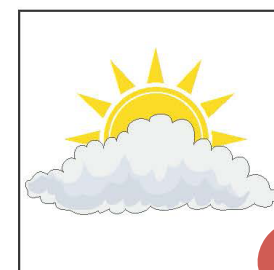○ D under the ground

2

ASSESSMENT

SUBTOTAL: /9

Weather Forecast

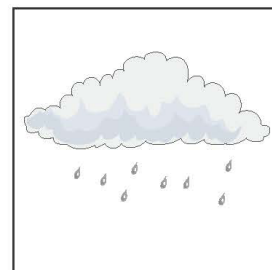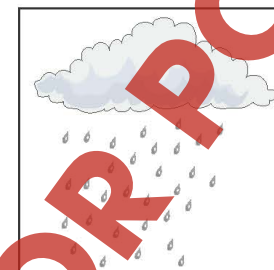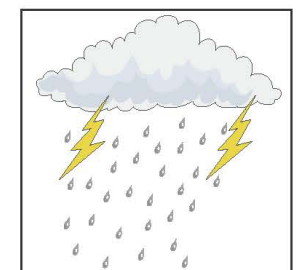You might see these pictures on a map that tells what the weather is going to be like.

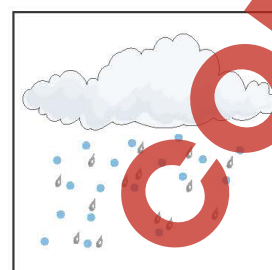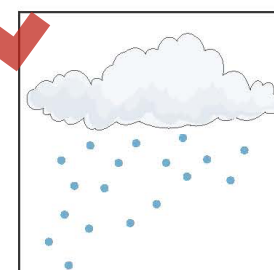Sunny   Partly Cloudy   Cloudy

Light Rain   Heavy Rain   Thunderstorm
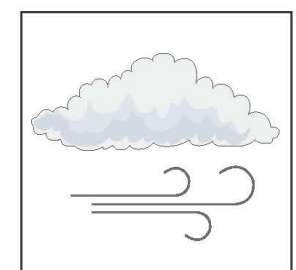
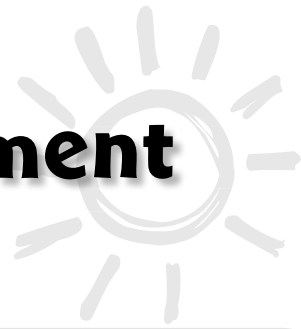Snow & Rain   Snow   Windy

COLOR POSTERS

Humans and the Environment

1. Finish each sentence with a word from the list.

| environment | fuels | solar | cellars |

a) The Earth is getting warmer because people are burning _____.

b) In places with high winds, people have built storm _____.

c) We can get energy from the Sun with _____ cells.

d) All the things where an animal lives is its _____.

2. Put a check mark (✓) next to the answer that is the most right.

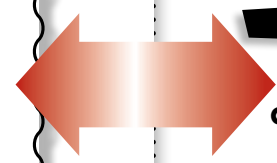**a) Which way of getting energy changes the air?**

○ **A**　burning wood
○ **B**　windmills
○ **C**　solar cells
○ **D**　water wheels

b) Which helps some plants live in a desert?

○ **A**　They can save water.
○ **B**　They have big leaves.
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c) Which helps an animal live where it is cold?

○ **A**　big feet
○ **B**　thick fur
○ **C**　small ears
○ **D**　good eyes

Hands-On - Earth & Space Science CCP4102-5

1.

a) fuels

b) cellars

c) solar

d) environment

2.

a) ⊙ A

b) ⊙ A

c) ⊙ B

3.

a) People can make their homes cooler or warmer if the weather gets hotter or colder. Animals have to move to a different place.

b) Cities can get energy from windmills. They can also get energy from the Sun with solar cells. They can get energy from flowing water with water wheels.

4.

Devices and answers will vary.

10　　11

EASY MARKING ANSWER KEY