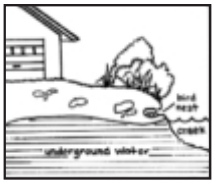
Name _____

27. Paul helps his father change the oil in the family truck. His father tells him to pour the used oil at the edge of the yard "where it's just weeds and scrub brush." The picture below shows Paul's yard.



Part A What kinds of pollution can result if Paul pours the used oil at the edge of the yard?

Possible answer: If Paul pours the used oil in the corner of the yard, the oil will cause land pollution as it seeps into the soil. It will pollute the underground water. Rain will wash the oil into the nearby creek and cause water pollution.

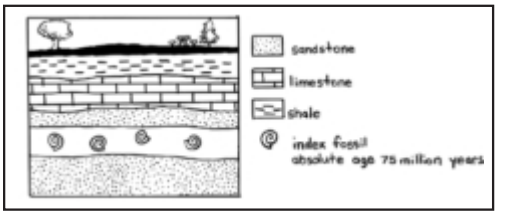
Part B Will any organisms by harmed by Paul's action?

Possible answer: There is a bird nest dug into the bank of the creek. The birds might be harmed if the water in the creek becomes polluted.

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28. Observe the diagram of rock layers and the key, and answer the questions that follow.



Part A What method would scientists have used to determine the absolute age of the index fossil?

Possible answer: Scientists would have used radioactive dating to find out the absolute age.

Part B Is the limestone layer older than 75 million years or younger than 75 million years? Tell how you could use the law of superposition to answer this question.

Possible answer: The limestone layer is younger than 75 million years. The law of superposition says that the oldest rock layers were laid down first. The limestone layer is on top of the layer with the index fossil. The index fossil has an absolute age of 75 million years, so the limestone layer has to be younger.

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Chapter Assessment

Weather and the Water Cycle

Vocabulary 4 points each

Match each term in Column B with its meaning in Column A.

	Column A	Column B
G	1. The layer of air closest to Earth's surface	A. air mass
B	2. The weight of the atmosphere pressing down on Earth	B. air pressure
E	3. The process by which water in a fish tank disappears over time	C. atmosphere
D	4. The process by which water changes from a gas to a liquid	D. condensation
A	5. A large body of air that has the same temperature and humidity throughout	E. evaporation
H	6. The movement of water from Earth, to the atmosphere, and back to Earth	F. front
C	7. The blanket of air surrounding Earth	G. troposphere
F	8. The border between two air masses	H. water cycle

Science Concepts 4 points each

Write the letter of the best choice.

D **9.** What is the name of a wind that blows constantly from the same direction?
A. fog **C.** ozone
B. local wind **D.** prevailing wind

F **10.** You know that winter weather where you live is about the same every year. What is this type of weather pattern called?
F. climate **H.** pressure
G. condensation **J.** weather

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Name _____

D **11.** You are on an island in the Caribbean Sea. Which air mass forms over you?
A. continental polar
B. continental tropical
C. maritime polar
D. maritime tropical

G **12.** Which instrument would you use to measure the pressure of the surrounding air?
F. anenometer
G. barometer
H. hygrometer
J. thermometer

D **13.** Where does most of Earth's weather happen?
A. outer space
B. stratosphere
C. thermosphere
D. troposphere

G **14.** Based on your knowledge of cold and warm air masses, which of the following is true?
F. Warm air is denser than cold air; cold air exerts more pressure.
G. Cold air is denser than warm air; cold air exerts more pressure.
H. Warm air is denser than cold air; warm air exerts more pressure.
J. Cold air is denser than warm air; warm air exerts more pressure.

A **15.** Which has the greatest effect on humidity?
A. air temperature
B. local climate
C. local winds
D. prevailing winds

H **16.** What causes prevailing winds to move in curved paths?
F. Earth's two poles
G. Earth's mountains
H. Earth's rotation on its axis
J. Earth's revolution around the sun

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Inquiry Skills 8 points each

17. It is a cold, rainy day. The weather forecast is for the next day to be warm and sunny. What would you **predict** about the amount of evaporation that will take place on the warm, sunny day? Explain.

Possible answer: The amount of evaporation will be greater on the warm, sunny day than on the cold, rainy day. Sunlight provides the energy that causes water to evaporate.

18. You are planning a vacation to a resort. Before leaving, you **gather data** about weather forecasts for the region. You learn that a continental polar air mass will be over the region when you arrive, but that it will quickly be replaced by a maritime tropical air mass. What kind of weather can you expect when you arrive? How will the weather change after your arrival?

Because of the continental polar air mass, the weather will be cool and dry when you arrive at the resort. When the maritime tropical air mass arrives, the weather will change to hot and humid with the possibility of thunderstorms and perhaps even hurricanes.

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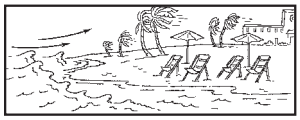
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Critical Thinking 10 points each

19. Ann is writing a report to explain the effect of mountain ranges on weather. What should her report say about the air masses and precipitation on both sides of the mountain?

As air moves up and over mountain ranges, the air cools. Much of the water vapor condenses, resulting in precipitation. At higher elevations, with colder temperatures, snow will be the main form of precipitation. When the air passes to the other side of the mountains, most of the water vapor will no longer be present. The air will warm as it comes down the mountain. There will be little or no precipitation.

20. The diagram shows the wind blowing.



Part A In which direction does the wind blow? Explain why this happens.

The wind is blowing from the sea toward the land because the air over the land is warmer than the air over the sea. The air over land rises, and the air over the sea moves inland.

Part B Why is the seashore a comfortable place to be on hot summer days? Explain.

The seashore is comfortable on hot summer days because a cool breeze blows inland from the sea, as shown in the diagram.

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Chapter Assessment

Earth's Oceans

Vocabulary 4 points each

Match each term in Column B with its meaning in Column A.

	Column A	Column B
B	1. The part of the ocean floor that drops steeply	A. salinity
F	2. A point of land formed when soft rock wears away	B. continental slope
A	3. A measure of the amount of salt in water	C. abyssal plain
H	4. A wall-like structure that sticks out into the ocean	D. current
G	5. A temporary pool of ocean water	E. shore
C	6. The large, flat area on the bottom of the ocean	F. headland
E	7. The area where the ocean and the land interact	G. tide pool
D	8. A stream of water that flows like a river through the ocean	H. jetty

Science Concepts 4 points each

Write the letter of the best choice.

C **9.** What causes waves to form?
- **A.** Earth rotates on its axis.
- **B.** Currents flow through the ocean.
- **C.** Wind blows over the surface of the water.
- **D.** Earth's gravity pulls the water up and down.

F **10.** How does water in a wave move?
- **F.** in a circle
- **G.** back and forth
- **H.** down to the ocean floor
- **J.** up from the ocean floor

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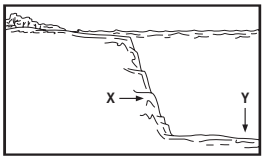
D **11.** What happens as you descend deeper into the ocean?
- **A.** Temperature increases and pressure decreases.
- **B.** Temperature increases and pressure increases.
- **C.** Temperature decreases and pressure decreases.
- **D.** Temperature decreases and pressure increases.

G **12.** Look at the two pictures below. What caused the beach ball to move?



- **F.** gravity
- **G.** a longshore current
- **H.** the phases of the moon
- **J.** an undersea earthquake

Use the diagram below to answer Questions 13–14.



C **13.** Which part of the ocean is labeled **X**?
- **A.** abyssal plain
- **B.** continental shelf
- **C.** continental slope
- **D.** mid-ocean ridge

H **14.** Which of the following would **not** be found on the part of the ocean that is labeled **Y**?
- **F.** active volcanoes
- **G.** deep trenches
- **H.** deep canyons formed by rivers
- **J.** mountains formed by plate movement

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