Name _____   Class _____   Date _____

3-1 LAND BIOMES P 50   120 POINTS TOTAL

Section: Land Biomes
THE EARTH'S LAND BIOMES   36pts

1. Features of an environment that are not alive, such as soil, water, and climate,

are _____ factors.

2. The living parts of an environment, plants and animals, are

_____ factors.

3. A large area characterized by its climate and the plants and animals that live

there is a(n) _____.

FORESTS

4. Name the three main types of forest biomes.

3pts

_____

_____

_____

5. Why do deciduous trees shed their leaves?

_____

_____

6. Forests made up of trees that keep their needle-shaped leaves year-round are

called _____ forests.

7. What are two traits of conifers?

2pts

_____

_____

_____

8. What are the three functions of the waxy coating on conifer leaves?

3pts

_____

_____

_____

_____

9. What are two reasons that few large plants grow beneath the trees of a
2pts coniferous forest?

_____

_____

_____

10. Why do tropical rain forests have more biological diversity than other places
on Earth?

_____

11. Where do most animals live in the rain forest?

_____

12. Where are most of the nutrients in a tropical rain forest?

_____

GRASSLANDS

_____**13.** Which is NOT a name for a grassland?
  a. steppe   **c.** canopy
  b. prairie   **d.** pampas

_____**14.** What prevents temperate grasslands from having trees?
  a. too much rain   **c.** deep roots
  b. grazing animals   **d.** rolling hills

_____**15.** A biome with clumps of trees and seasonal rains is a
  a. temperate grassland.   **c.** desert.
  b. savanna.   **d.** tropical rain forest.

_____**16.** Which animal is NOT an example of a large herbivore that lives on the
African savanna?
  a. zebra   **c.** horse
  b. wildebeest   **d.** elephant

DESERTS

_____**17.** A region with few plants, little rain, and extreme temperatures is
called a
  a. prairie.   **c.** desert.
  b. grassland.   **d.** savanna.

18. Name four adaptations of desert plants.

4pts

_____

_____

_____

_____

Match the correct description with the correct term. Write the letter in the space provided.

_____**19.** stores water from flowers under its shell

_____**20.** recycles water from foods it eats

_____**21.** huge ears get rid of body heat

_____**22.** buries self in ground during dry season

a. jack rabbit

b. spadefoot toad

c. desert tortoise

d. kangaroo rat

TUNDRA

23. A biome with very cold temperatures and little rainfall is called a(n)

_____.

24. The layer of soil in the polar tundra that is always frozen is called

_____.

25. Why are shallow-rooted plants, such as grasses and small shrubs, common in polar tundra?

_____

_____

26. What is the main way alpine tundra differs from arctic tundra?

_____

_____

27. Define the term *tree line.*

_____

_____

Skills Worksheet

D3-2 MARINE ECOSYSTEMS PAGE 58

26pts

Section: Marine Ecosystems

1. Ecosystems in the ocean are called _____.

LIFE IN THE OCEAN

2. What are the largest animals on Earth?

_____

3. Tiny organisms that float near the surface of freshwater and marine

environments are called _____.

4. How do plankton get their food?

_____

_____

TEMPERATURE

_____ **5.** How does the temperature of ocean water change as it gets deeper?
   a. It decreases.
   b. It increases.
   c. It does not change.
   d. It varies from day to day.

_____ **6.** Which ocean temperature zone has the warmest water?
   a. deep zone
   b. thermocline
   c. surface zone
   d. middle layer

_____ **7.** How does ocean temperature affect whales?
   a. They can only live in cold water.
   b. They can only live in warm water.
   c. They cannot stand sudden temperature changes.
   d. They migrate from cold to warm areas to reproduce.

DEPTH AND SUNLIGHT

Match the correct description with the correct term. Write the letter in the space provided.

_____ **8.** warm water and a lot of sunlight; ocean floor starts to slope downward

_____ **9.** sea floor drops sharply; contains deep water of the open ocean

_____ **10.** ocean floor; deepest parts get no sunlight

_____ **11.** where the ocean meets the land; exposed to air part of the day

a. intertidal zone

b. neritic zone

c. oceanic zone

d. benthic zone

A CLOSER LOOK

12. Name three ways life on Earth depends on the ocean.

3pts

_____

_____

_____

13. Name three kinds of intertidal areas.

3pts

_____

_____

_____

14. Name two ways certain organisms have adapted to living on rocky shores.

2pts

_____

_____

15. Name three marine organisms that live on coral reefs.

3pts

_____

_____

_____

16. A place where fresh water from rivers mixes with salty ocean water is

a(n) _____.

17. Estuaries are rich in nutrients, so large numbers of _____

live there.

18. How do animals in the Sargasso Sea hide from predators?

_____

_____

19. Does the polar ice ecosystem support much life? Explain why or why not.

_____

_____

_____

_____

Name _____ Class _____ Date _____

FRESHWATER ECOSYSTEMS P 64

25pts

Section: Freshwater Ecosystems
STREAM AND RIVER ECOSYSTEMS

1. Name two places that water in rivers may come from.

2pts

_____

_____

2. A strong, wide stream is a(n) _____.

3. A stream of water joining a larger stream is a(n) _____.

4. What is one important abiotic factor in freshwater ecosystems?

_____

_____

Match the correct description with the correct term. Write the letter in the space provided.

_____ **5.** attach to rocks

_____ **6.** live under rocks

_____ **7.** use suction disks

a. insects

b. tadpoles

c. algae and moss

POND AND LAKE ECOSYSTEMS

Match the correct description with the correct term. Write the letter in the space provided.

_____ **8.** zone that goes as deep as sunlight can reach; home to many photosynthetic plankton

_____ **9.** zone where no sunlight reaches; organisms feed on dead organisms from above

_____ **10.** zone closest to the edge of a lake or pond; sunlight reaches the bottom

a. deep-water zone

b. open-water zone

c. littoral zone

11. What enables algae and plants to grow in the littoral zone?

_____

_____

_____

12. Name three organisms that live in the deep-water zone.

3pts _____

_____

_____

WETLAND ECOSYSTEMS

Match the correct description with the correct term. Write the letter in the space provided.

_____**13.** a wetland ecosystem with trees and vines

_____**14.** an area of land sometimes underwater or
with very moist soil

_____**15.** a wetland ecosystem that has no trees but
has other plants

a. wetland

b. marsh

c. swamp

16. Name three reasons wetlands are valuable.

3pts _____

_____

_____

17. Where are freshwater marshes often found?

_____

_____

_____

_____

18. Where are swamps found?

_____

_____

_____

_____

| Directed Reading A *continued*

FROM A LAKE TO A FOREST

_____**19.** What happens when plants and animals at the bottom of a lake
decompose?
  a. Animal life in the lake increases.
  b. The lake has more water.
  c. Oxygen is lost, affecting the animals that live in the lake.
  d. Living conditions for fish improve.

_____**20.** How does a lake start to become a forest?
  a. Plants grow closer to the center of the lake.
  b. Sediment and leaves settle at the bottom of the lake.
  c. The lake becomes a swamp.
  d. Fishes die off due to lack of oxygen.

Reinforcement

21pts

Know Your Biomes

Complete this worksheet after you finish reading the section "Land Biomes."

1. Using the "Temperature & Rainfall" column as a guide, label the biomes using the following terms: *desert*, *tropical rain forest*, *tundra*, *coniferous forest*, *temperate grassland*, *savanna*, and *temperate deciduous forest*.

2. Use the examples and characteristics given in the box on the next page to fill in the appropriate blanks.

Type of Biome	Temperature & Rainfall	Examples & Characteristics
_____	summer: 38°C winter: 7°C rain: less than 25 cm per year	jack rabbit _____ _____
_____	dry season: 34°C wet season: 16° C rain: 150 cm per year	has scattered clumps of trees _____ _____
_____	daytime: 34°C nighttime: 20°C rain: up to 400 cm per year	the most biologically diverse biome _____ _____
_____	summer: 28°C winter: 6°C rain: 75-125 cm per year	woody shrubs _____ _____
_____	summer: 12°C winter: -26°C rain: 30-50 cm per year	has no trees _____ _____

Type of Biome	Temperature & Rainfall	Examples & Characteristics
_____	summer: 14°C winter: −10°C rain: 35–75 cm per year	waxy coating on needles _____ _____
_____	summer: 30°C winter: 0°C rain: 25–75 cm per year	supports small seed-eating animals _____ _____

	Examples and Characteristics
A	caribou
B	bison
C	giraffe
D	woodpecker
E	porcupine
F	most animals live in the canopy
G	animals are active at night
H	trees produce seeds in cones
I	very few trees
J	plants spaced far apart
K	permafrost
L	trees lose leaves in fall
M	home to many large herbivores
N	most nutrients in the plants

Activity

Vocabulary Activity

Eco-Puzzle

After you finish reading the chapter, complete this puzzle. In the space provided, write the term described. Then find those words in the puzzle on the next page. Terms can be hidden in the puzzle vertically, horizontally, diagonally, or backward.

1. a treeless plain found in polar regions and at the tops of mountains:

_____

2. a hot, dry biome that receives less than 25 cm of rain a year:

_____

3. the zone of a lake or pond closest to the edge of the land:

_____

4. a treeless wetland ecosystem:

_____

5. microscopic organisms in waters of freshwater and marine environments:

_____

6. large region characterized by climate and certain types of plants and animals:

_____

7. a wetland ecosystem with trees:

_____

8. zone of a lake or pond where no light reaches:

_____

9. an area where fresh and salt waters constantly mix:

_____

10. land that is sometimes under water or has soil with a great deal of moisture:

_____

11. a tropical grassland with scattered clumps of trees:

_____

12. zone of lake or pond that extends across the top of the water:

_____

Vocabulary Activity *continued*

3 pts bonus

Find the terms in this puzzle. Terms can be hidden vertically, horizontally, diagonally, or backward.

T	S	N	O	D	E	S	E	R	T	A	R	I	N	R	X	T
U	V	N	W	S	T	R	O	B	Y	Z	I	O	T	T	U	G
N	E	D	E	E	P	W	A	T	E	R	P	N	S	O	V	L
D	B	A	T	E	A	H	R	E	L	I	T	T	O	R	A	L
R	O	P	L	R	M	O	C	H	A	N	R	N	U	A	L	C
A	N	Y	A	T	Y	K	E	O	N	C	O	L	T	O	I	F
P	Y	A	N	F	A	L	D	P	D	T	E	B	B	R	E	D
H	R	E	D	A	L	B	J	E	K	O	T	O	M	M	E	S
O	A	G	R	P	R	I	N	N	E	L	I	T	O	N	C	A
T	U	S	E	I	G	N	A	W	I	N	M	I	L	O	R	N
O	T	P	I	R	A	L	D	A	F	A	B	R	E	L	I	N
M	S	I	Z	W	P	R	U	T	A	V	A	E	N	Q	L	A
O	E	W	A	L	E	A	X	E	P	I	G	H	O	U	E	V
L	V	R	E	Y	N	U	E	R	I	S	W	A	M	P	R	A
A	O	L	I	R	O	Q	S	A	R	K	I	P	R	P	I	S
T	L	P	S	A	M	A	R	S	H	A	S	A	N	A	V	E
H	E	N	T	O	E	W	E	H	T	I	H	N	A	B	O	V