Name Ch.5 Class _____ Date _____

Skills Worksheet

Concept Review

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

_____ **1.** two types of consumers

_____ **2.** a diagram showing the many feeding relationships that are in an ecosystem

_____ **3.** the process in which energy from the sun is used by plants to make sugar molecules

_____ **4.** illustrates the loss of energy from one trophic level to the next

_____ **5.** organisms that get their energy by eating other organisms

_____ **6.** stored carbon from the remains of plants and animals that died millions of years ago

_____ **7.** organisms that make their own food

_____ **8.** change that occurs on an abandoned farm

_____ **9.** a part of the carbon cycle

_____ **10.** results from excessive use of fertilizers

_____ **11.** organisms that transform atmospheric nitrogen into usable nitrogen compounds

_____ **12.** part of the nitrogen cycle

_____ **13.** transfer of energy from one organism to another

a. photosynthesis
b. rabbit and coyote
c. fossil fuels
d. producers
e. food web
f. consumers
g. atmospheric CO_2
h. energy pyramid
i. algal bloom
j. atmospheric N_2
k. food chain
l. old-field succession
m. nitrogen-fixing bacteria

Name _____ Class _____ Date _____

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ **14.** What are the first organisms to colonize any newly available area called?
- **a.** climax species
- **b.** ferns
- **c.** pioneer species
- **d.** mosses

_____ **15.** Which of the following is a producer that breaks down rock?
- **a.** pioneer producer
- **b.** fungal species
- **c.** algae
- **d.** lichen

_____ **16.** Humans are affecting the balance of the carbon cycle by
- **a.** burning fossil fuels.
- **b.** using carbonates at an alarming rate.
- **c.** using fertilizers.
- **d.** replanting the rain forests.

_____ **17.** What is a pattern of change that occurs on a surface where an ecosystem has previously existed?
- **a.** primary succession
- **b.** secondary succession
- **c.** tertiary succession
- **d.** climax community

_____ **18.** What do deep-ocean bacteria use to make their food?
- **a.** the sun
- **b.** hydrogen sulfide
- **c.** carbon dioxide
- **d.** sugar molecules

_____ **19.** Which of the following is an herbivore?
- **a.** cow
- **b.** lion
- **c.** bear
- **d.** grass

_____ **20.** Which of the following is a producer?
- **a.** oak tree
- **b.** raccoon
- **c.** cockroach
- **d.** human

_____ **21.** Which of the following is a process in the cell whereby glucose and oxygen produce carbon dioxide, water, and energy?
- **a.** photosynthesis
- **b.** cellular respiration
- **c.** synthesis
- **d.** decomposition

_____ **22.** Which of the following organisms would be found at the top of an energy pyramid?
- **a.** alga
- **b.** krill
- **c.** leopard seal
- **d.** killer whale

_____ **23.** Humans usually get the phosphorus that their bodies need from
- **a.** eating plants and animals that contain phosphorus.
- **b.** mining.
- **c.** food additives.
- **d.** drinking water.

Name 5-1 Class _____ Date _____

Assessment

Quiz

Section: Energy Flow in Ecosystems

MATCHING

Write the letter of the term or phrase that best matches the description.

_____ **1.** an organism that makes its own food

_____ **2.** the process of breaking down food to yield energy

_____ **3.** organisms that get their energy by eating other organisms

_____ **4.** the process in which plants make sugar molecules from sunlight

_____ **5.** consumers that get their food by breaking down dead organisms

_____ **6.** the many feeding relationships possible in an ecosystem

a. cellular respiration
b. decomposer
c. producer
d. consumer
e. photosynthesis
f. food web

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ **7.** What term is used to describe a linear sequence in which energy is transferred from one organism to the next?
a. food web
b. food chain
c. trophic level
d. energy pyramid

_____ **8.** Which organism is likely to be in the bottom trophic level in a food chain?
a. leopard seal
b. alga
c. krill
d. killer whale

_____ **9.** What is the ultimate source of energy for almost all organisms except those living deep in the ocean near a thermal vent?
a. producers
b. consumers
c. the sun
d. bacteria

_____ **10.** What are organisms that eat both plants and animals called?
a. herbivores
b. carnivores
c. omnivores
d. autotrophs

Name 5-2 Class _____ Date _____

Assessment

Quiz

Section: The Cycling of Materials

MATCHING

Write the letter of the term or phrase that best matches the description.

_____ **1.** the process in which nitrogen is cycled between the atmosphere, bacteria, and other organisms

_____ **2.** the movement of phosphorus from the environment to organisms and then back to the environment

_____ **3.** the process by which carbon is cycled between the atmosphere, land, water, and organisms

_____ **4.** organisms that can transform unusable nitrogen in the atmosphere into chemical compounds containing nitrogen that can be used by other organisms

_____ **5.** breaks down decaying organisms

_____ **6.** part of the nitrogen cycle

_____ **7.** evidence of excessive use of fertilizer

_____ **8.** the result of burning fossil fuels

a. carbon cycle
b. increased atmospheric CO_2
c. phosphorus cycle
d. algal bloom
e. atmospheric nitrogen
f. decomposers
g. nitrogen-fixing bacteria
h. nitrogen cycle

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ **9.** Which of the following is one of the largest carbon reservoirs on Earth?
a. limestone
b. fossil fuels
c. Amazon rain forest
d. Atlantic Ocean

_____ **10.** Which of the following is not part of the nitrogen cycle?
a. nitrogen gas in space
b. nitrogen in the atmosphere
c. nitrogen compounds in animal waste
d. nitrogen compounds in the soil

Name 5-3 Class _____ Date _____

Assessment

Quiz

Section: How Ecosystems Change

MATCHING

Write the letter of the term or phrase that best matches the description.

_____ **1.** a common type of succession that occurs on a surface where an ecosystem has previously existed

_____ **2.** the first organisms to colonize any newly available area and begin the process of ecological succession

_____ **3.** a final and stable community

_____ **4.** a type of succession that occurs on a surface where no ecosystem existed before

_____ **5.** a type of succession that occurs on abandoned farmland

_____ **6.** a gradual process of change and replacement of the types of species in a community

a. ecological succession
b. primary succession
c. secondary succession
d. pioneer species
e. climax community
f. old-field succession

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ **7.** What type of vegetation would you expect to find on an abandoned farm that has remained undisturbed for 150 years?
a. short grasses
b. shrubs
c. young pine trees
d. tall, mature oak trees

_____ **8.** What type of vegetation would you expect to find on newly formed volcanic islands?
a. lichens
b. short grasses
c. shrubs
d. young trees

_____ **9.** What type of succession occurs after a natural process such as a volcanic eruption or flood?
a. primary succession
b. secondary succession
c. old-field succession
d. climax community

_____ **10.** The eruption of Mount St. Helens was followed by
a. primary succession.
b. secondary succession.
c. old-field succession.
d. forest succession.