Name _____ Class _____ Date _____

Skills Worksheet

Study Guide – Ch 20

MATCHING

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

_____ 1. organism that causes disease

_____ 2. study of the harmful effects of substances on organisms

_____ 3. study of the spread of disease

_____ 4. particles in the air that are small enough to breathe into the lungs

_____ 5. amount of a particular chemical to which a person is exposed

_____ 6. transmitter of a disease to people

_____ 7. organism in which a pathogen lives all or part of its life

_____ 8. estimate of the risk posed by an action or substance

_____ 9. previously unknown cause of disease

_____ 10. shows the relative effect of various doses of a drug or chemical on an organism

a. toxicology
b. dose
c. dose-response curve
d. epidemiology
e. risk assessment
f. particulates
g. pathogen
h. host
i. vector
j. emerging virus

MULTIPLE CHOICE

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

_____ 11. Which of the following pollutants is used in agriculture and landscaping and might cause nerve damage, birth defects, and cancer in humans?

a. particulate matter
b. lead
c. pesticides
d. bacteria

_____ 12. Which of the following pollutants is found in old paint and gasoline and can cause brain damage and learning problems?

a. particulate matter
b. lead
c. coal dust
d. pesticides

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_____13. Toxicology is used to determine
a. the classification of a pathogen.
b. the vectors of a disease.
c. how harmful a substance is.
d. what emerging viruses cause disease.

_____14. After an outbreak of an illness, scientists use epidemiology to try to find
a. the origin of the disease.
b. how the disease spreads.
c. how to prevent the disease from spreading.
d. All of the above

_____15. Radon, a pollutant that causes cancer, comes from
a.cigarette smoke.
b. granite bedrock.
c. processed foods.
d. drinking water

_____16. What percentage of commercial chemicals have been tested for toxicity?
a.10 percent
b. 30 percent
c. 50 percent
d. 90 percent

_____17. Which of the following statements is correct?
a. Landfills solved pollution problems caused by waste disposal.
b. Wastewater from cities no longer carries toxic chemicals into waterways.
c. Laws regulating waste disposal have put an end to pollution problems caused by wastes.
d. Much of the pollution in our environment is a byproduct of inadequate waste disposal.

_____18. The environment is an important factor in the spread of cholera and dysentery because
a. air can carry the pathogens.
b. water provides a habitat in which the pathogens breed.
c. the pathogens reproduce in soil.
d. the disease is transmitted by mosquitoes.

_____19. Which of the following environmental changes is most likely to lead to the spread of parasites such as hookworm?
a.overuse of pesticides
b. global warming
c. overuse of antibiotics
d. soil erosion

_____20. Which of the following is an emerging virus?
a.West Nile
b. measles
c. diphtheria
d. schistosomiasis

CHAPTER 20 Review

Reviewing Key Terms

Use each of the following terms in a separate sentence.

1. *dose*
2. *vector*
3. *risk assessment*
4. *particulates*
5. *epidemiology*

For each pair of terms, explain how the meanings of the terms differ.

6. *pathogen* and *host*
7. *response* and *dose*
8. *toxicology* and *epidemiology*
9. **Concept Map** Use the following terms to create a concept map: *habitat destruction*, *pathogen*, *animal*, *vector*, and *human disease*.

Reviewing Main Ideas

10. Which of the following is not a true statement about the effects of pollution on health?
    a. It is difficult to determine how pollution affects health because many factors often contribute to a disease.
    b. The toxic effects of a pollutant depend upon the dose to which you are exposed.
    c. Many pollutants cause chronic diseases that result from exposure to the pollutant over the course of many years.
    d. Persistent chemicals are less toxic than chemicals that break down rapidly.

11. Which of the following is not a disease?
    a. malaria
    b. dengue fever
    c. human immunodeficiency virus (HIV)
    d. schistosomiasis

12. Cholera is usually transmitted from person to person by water because
    a. it is caused by a snail that breeds in water.
    b. it is usually contracted by someone drinking water polluted with human feces that contain the cholera pathogen.
    c. it is transmitted by mosquitoes.
    d. it is caused by a virus.

13. Tuberculosis (TB), which was once almost eradicated, is becoming more common, even in developed countries, because
    a. new varieties of the tuberculosis pathogen have evolved in rodents.
    b. livestock are given antibiotics.
    c. the pathogen that causes TB breeds in polluted water.
    d. some strains of the pathogen that causes TB are resistant to antibiotics.

14. Which of the following statements about environmental pollutants is true?
    a. Our environment contains fewer toxic chemicals than it did 50 years ago.
    b. Hormone mimics in our water supply pose no danger to humans.
    c. There is no health risk from pollutants in indoor air.
    d. People who live in the United States contain lower levels of some toxic chemicals in their bodies than they did 20 years ago.

15. Which of the following actions is most likely to prevent yellow fever, which is transmitted by mosquitoes, from becoming epidemic?
    a. preventing dehydration in patients by treating them with oral rehydration therapy
    b. taking antibiotics
    c. encouraging people to empty water out of old cans, tires, plant saucers, and other areas that contain standing water
    d. spraying the area repeatedly with pesticides