**Skills Worksheet**

**Directed Reading**

**Section: The Water Cycle**

1. What question has puzzled people for centuries?

2. Once people were able to measure the amount of water that falls to Earth, what did they discover?

3. Once people had learned how much water falls to Earth, what more puzzling question remained?

**MOVEMENT OF WATER ON EARTH**

4. What is essential for humans and all other organisms?
   a. water vapor
   b. rivers
   c. water
   d. icecaps

5. How much of Earth’s surface is covered with water?
   a. about a third
   b. about half
   c. more than two-thirds
   d. more than three-quarters

6. Where is Earth’s surface water NOT found?
   a. in the lakes and oceans
   b. in groundwater
   c. in rivers and streams
   d. in the atmosphere

7. Groundwater is water that
   a. flows through the rock below Earth’s surface.
   b. flows in streams and rivers on Earth’s surface.
   c. falls to Earth as rain.
   d. has melted from snow and the polar icecaps.

8. In addition to streams and rivers, lakes, oceans, polar icecaps, and groundwater, where else is water found on Earth?
   a. trapped in volcanoes
   b. sealed inside fossils
   c. in the tissues of living organisms
   d. in mineral crystals

9. Water occurring as an invisible gas is called
   a. water vapor
   b. water particulate
   c. water distillate
   d. water transpiration

10. Where is water vapor found?
    a. in underground streams
    b. deep in the oceans
    c. in the polar icecaps
    d. in the atmosphere

11. Where can you find small particles of liquid water in the atmosphere?
    a. in clouds and fog
    b. in rivers and streams
    c. in groundwater
    d. in water vapor

12. What is always happening to Earth’s water?
    a. It is all rapidly changing from a liquid to a gas.
    b. It is all slowly changing from a gas to a solid.
    c. It is all rapidly changing from a liquid to a solid.
    d. It is constantly changing from one form to another.

13. An example of water changing from a solid to a liquid is
    a. water vapor escaping from oceans into the atmosphere.
    b. water vapor falling from the sky as rain.
    c. glaciers melting to form streams.
    d. puddles freezing into ice.

14. What is the continuous movement of water from the atmosphere to the land and oceans and back to the atmosphere?
    a. the hydrogen cycle
    b. the water cycle
    c. evaporation
    d. condensation
15. By what process does liquid water change into water vapor?
   a. evaporation
   b. condensation
   c. precipitation
   d. respiration

16. About how much water evaporates into the atmosphere each year?
   a. 5,000 km³
   b. 50,000 km³
   c. 500,000 km³
   d. 5,000,000 km³

17. About 86% of the atmosphere’s water vapor comes from
   a. living organisms.
   b. rivers, lakes, and streams.
   c. clouds and fog.
   d. the oceans.

18. What is the process by which plants release water into
   the atmosphere?
   a. precipitation
   b. transpiration
   c. evaporation
   d. condensation

19. Total loss of water from an area is equal to all of the water
   a. that runs off in rivers and streams and is absorbed by the ground.
   b. lost by precipitation and transpiration.
   c. lost by evaporation and transpiration.
   d. that evaporates from the soil and from streams and lakes.

20. In what part of the water cycle does water change from a gas to a liquid?
   a. evaporation
   b. transpiration
   c. precipitation
   d. condensation

21. When water vapor rises in the atmosphere, it
   a. expands, cools, and condenses.
   b. freezes into ice.
   c. expands, warms up, and condenses.
   d. compresses and heats up.

22. When water vapor cools and condenses into tiny droplets in the
    atmosphere, what do they form?
    a. snow
    b. ice
    c. clouds
    d. sleet

23. What is any form of water that falls to Earth’s surface from the clouds?
    a. condensation
    b. transpiration
    c. evaporation
    d. precipitation

24. Which is not a form of precipitation?
    a. rain
    b. fog
    c. sleet
    d. snow

25. What percentage of all precipitation falls on Earth’s oceans?

26. What happens to rain, snow, sleet, or hail that falls on land?

27. Describe what happens to all water that falls as precipitation.

28. What is the continuous cycle of evapotranspiration, condensation,
    and precipitation?
    a. runoff
    b. Earth’s water budget
    c. the water cycle
    d. the hydrogen cycle

29. Using the language of a financial statement, the “income” of Earth’s
    water budget is
    a. precipitation.
    b. evaporation.
    c. condensation.
    d. runoff.
30. Using the language of a financial statement, the "expenses" of Earth's water budget are
   a. precipitation and condensation.
   b. clouds and fog.
   c. condensation and freezing.
   d. evapotranspiration and runoff.

31. In what way is the water budget of the whole Earth balanced?
   a. The amount of evapotranspiration and runoff is less than the amount of precipitation.
   b. The amount of precipitation is greater than the amount of condensation and freezing.
   c. The amount of precipitation is equal to the amount of runoff and condensation.
   d. The amount of precipitation is equal to the amount of evapotranspiration and runoff.

32. Which of the following factors affect the local water budget?
   a. just the temperature and the amount of rainfall
   b. temperature, vegetation, wind, and rainfall
   c. temperature, human habitation, season of the year, and sunlight
   d. vegetation, season of the year, sunlight, and day of the week

33. What occurs when precipitation exceeds evapotranspiration and runoff in an area?
   a. dry soil
   b. irrigation
   c. moist soil and possible flooding
   d. vegetation

34. What is a possible local result when evapotranspiration and runoff are greater than precipitation in an area?
   a. Soil will become moist, and flooding is possible.
   b. Soil will stabilize, making irrigation unnecessary.
   c. Soil can become moist and wash away.
   d. Soil can become dry, and irrigation may be necessary.

35. How does vegetation affect the water budget in an area?
   a. Vegetation reduces runoff but increases evapotranspiration.
   b. Vegetation reduces runoff and decreases evapotranspiration.
   c. Vegetation increases runoff and decreases evapotranspiration.
   d. Vegetation increases runoff and evapotranspiration.

36. Which of the following factors increases the rate of evapotranspiration?
   a. precipitation
   b. steep slopes
   c. wind
   d. clouds

37. The factors that affect the local water budgets worldwide vary
   a. randomly.
   b. geographically.
   c. artificially.
   d. geologically

38. How does precipitation in a desert compare with precipitation in a tropical rain forest?
   a. It is much greater.
   b. It is much less.
   c. It is about the same.
   d. It is slightly less.

39. In most places on Earth, the local water budget also changes with
   a. the phase of the moon.
   b. the time of the day.
   c. the days of the week.
   d. the seasons.

40. How do cooler temperatures affect the rate of evapotranspiration?
   a. They speed it up.
   b. They slow it down.
   c. They have no effect.
   d. They first slow it down and then later speed it up.

41. What happens to the rate of evapotranspiration in warmer months?
   a. It increases.
   b. It decreases.
   c. It does not change.
   d. It first decreases and then increases.

42. When do streams transport more water?
   a. in cooler months
   b. in warmer months
   c. in months with long days
   d. in months with little rain
43. On average, how much water does each person in the United States use each year?
   a. 25,000 gal
   b. 25,000 L
   c. 95,000 gal
   d. 95,000 L

44. Which of the following is NOT a common use of water by people in the United States?
   a. bathing
   b. cooling food
   c. watering lawns
   d. drinking

45. In addition to personal use by people, large amounts of water are also used by
   a. agriculture and industry.
   b. colleges and universities.
   c. mining and manufacturing.
   d. agriculture and water parks.

46. As the population of the United States increases, the demand for water
   a. is unaffected.
   b. also increases.
   c. remains the same.
   d. decreases.

47. What happens to about 90% of the water used by cities and industry in the United States?
   a. It evaporates into the atmosphere.
   b. It is completely consumed by human uses.
   c. It is treated in water treatment plants and reused.
   d. It is returned to rivers or to the oceans as wastewater.

48. What is a problem with some of the wastewater that people dispose of?
   a. Some of it has been changed into ice.
   b. Too much of it evaporates.
   c. Some of it contains harmful materials.
   d. Too much of it is allowed to flow away.

49. What can pollute rivers and harm plants and animals in the water?
   a. toxic materials
   b. ice
   c. discolored materials
   d. materials downstream

50. Why is water conservation important to people?

51. What is water conservation?

52. How can individuals help save water resources?

53. What can governments do to help conserve water?

54. What are antipollution laws designed to prevent?

55. In addition to conservation, what is another way of protecting the water supply?

56. What is desalination?

57. What are the drawbacks of desalination?

58. Explain today’s best way of ensuring our supplies of fresh water.