Handout 1 (pink) The Water Cycle

The Water Cycle

Standard 4 Objective 1 Indicators a, b, and c

1. What question has puzzled people for centuries?

• The origin of Earth's water supply



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

• Up to five times as much water falls to Earth as the rivers carry off.





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

 Instead of wondering where all the water comes from, the more puzzling question became, where does all the water go.



4. What is essential for humans and all other organisms?

• c. water



5. How much of Earth's surface is covered with water?

• c. more than two-thirds







Earth's Fresh Water

6. Where is Earth's surface water NOT found?

• d. in the atmosphere





Earth's Fresh Water

7. Groundwater is water that

a. flows through the rock below Earth's surface.



8. Water occurring as an invisible gas is called

• a. water vapor.



Earth's Fresh Water

9. Where is water vapor found?

• d. in the atmosphere



Distribution of Water on Earth Salt water in oceans and salt lakes is 97% **Total Water on Earth** Ice 76% Water Vapor 0.037% Lakes and rivers 0.34% Deep groundwater 11% Shallow groundwater 12%

Earth's Fresh Water

10. What is always happening to Earth's water?

 d. It is constantly changing from one form to another.



11. What is the continuous movement of water from the atmosphere to the land and oceans and back

• b. the water cycle



12. By what process does liquid water change into water vapor?

• a. evaporation



13. What is the process by which plants and animals release water into the atmosphere?

• b. transpiration



14. In what part of the water cycle does water change from a gas to a liquid?

• d. condensation



15. When water vapor rises in the atmosphere, it

• a. expands, cools, and condenses.



16. When water vapor cools and condenses into tiny droplets in the atmosphere, what do they form?

• c. clouds



17. What is any form of water that falls to Earth's surface from the clouds?

• d. precipitation



18. What is the continuous cycle of evapotranspiration, condensation, and precipitation?

• b. Earth's water budget



19. Which of the following factors affect the local water budget?

• b. temperature, vegetation, wind, and rainfall



20. What occurs when precipitation exceeds evapotranspiration and runoff in an area? c. moist soil and possible flooding



21. How does vegetation affect the water budget in an area?

 a. Vegetation reduces runoff but increases evapotranspiration.



22. How does precipitation in a desert compare with precipitation in a tropical rain forest?

• b. It is much less.



23. What happens to the rate of evapotranspiration in warmer months?

• a. It increases.



24. On average, how much water does each person in the United States use each year?

• d. 95,000 L





25. In addition to personal use by people, large amounts of water are also used by

• a. agriculture and industry.





26. As the population of the United States increases, the demand for water

• b. also increases.



Figure 13. Trends in population and freshwater withdrawals by source, 1950–2005.

27. What happens to about 90% of the water used by cities and industry in the United States?

 d. It is returned to rivers or to the oceans as wastewater.



28. What is a problem with some of the wastewater that people dispose of?

• c. Some of it contains harmful materials.



The End!!!

