

UNIT STUDY GUIDE – WATER SCIENCE

Word	√	Definition
Water Cycle		The cycle in which water circulates between the earth's oceans, atmosphere, and land.
Evaporation		The process by which water changes from a liquid to a gas.
Condensation		The process by which water vapor in the air is changed into liquid water and is responsible for the formation of clouds.
Precipitation		Clouds releasing water in the form of rain, sleet, snow or hail.
Infiltration		The process by which water on the ground surface seeps or soaks into the soil or rocks below ground and can recharge groundwater aquifers.
Groundwater		Water held underground in the soil or pores and crevices of rock.
Watershed		The area of land that drains to a common body of water like a river
Some factors that affect watershed		<u>Gravity</u> causes water to travel to the lowest elevation available. <u>Topography</u> affects the direction and speed of water flow. <u>Surface cover</u> determines how water infiltrates, accumulates, or flows.
Drainage basin		An area of land where all surface water from rain, melting snow, or ice converges (comes together) to a single point at a lower elevation.
Aquifer		Water stored underground in permeable rock.
Water table		The highest level of water in an aquifer underground.
Permeable		Allows water or other liquids to move through a solid.
Impermeable		Does not allow water or other liquids to move through a solid.
Runoff		The draining away of water (and the substances carried by it) from the surface of an area of land, from a higher point to a lower point.
Water filtration		The process of purifying water by removing impurities and particles using a barrier and/or chemical reactions.
Transpiration		The process of water evaporating from the stomata.
Effluent		Wastewater that flows out of a water treatment plant, sewer or industrial facility. It may be treated (partly cleaned) or untreated.
Dams		A structure that holds back and controls the flow of water in a river or other bodies of water.
Reservoir		A large natural or artificial lake used as a source of water supply, often created by the construction of a dam.
Canal		An artificial waterway constructed to allow the passage of boats or ships inland or to convey water for irrigation.
Well		Device for pumping water from an aquifer or underground storage.

Answer the following questions.

1. Describe how water moves through the water cycle.
2. What is a watershed? Describe Phoenix's watershed.
3. Explain how our watershed supplies us with water in our community.
4. What are various ways that water is used in our community?
5. Explain different ways water gets polluted.
6. How does a water filter help purify the water?
7. How do we test for water quality?
8. How does people's use of water impact the environment?
9. Why is it difficult to gain access to clean water?
10. How do we provide access to clean water worldwide?
11. Draw a diagram of the water cycle including the following words:
Evaporation, condensation, precipitation, infiltration, permeable, impermeable, aquifer, runoff, well, and the sun.