Learning Target: I can use models to analyze and explain the cycling of matter and flow of energy within ecosystems through the processes of photosynthesis and respiration.

Biology EOC Science Review: Water cycle review
Match the following words with their correct description.

Part 1: Match the following words with their description below. Use the diagram for additional assistance.

Evaporation	**Transpiration**	**Condensation**	**Precipitation**	**Accumulation**
Runoff	**Infiltration**	**Percolation**	**Groundwater Flow**	

1. _____ The process by which water moves through soil under the force of gravity.

2. _____ The change of water from its gaseous state (water vapor) to a liquid state as a result of heat being removed.

3. _____ The process by which a liquid turns into a gas, or water vapor.

4. _____ Water that flows over the Earth's surface instead of soaking into the ground or evaporating.

5. _____ Any liquid or frozen water that forms in the atmosphere and falls to Earth.

6. _____ The movement or flow of water underground through soil and rock layers, driven by gravity and pressure gradients.

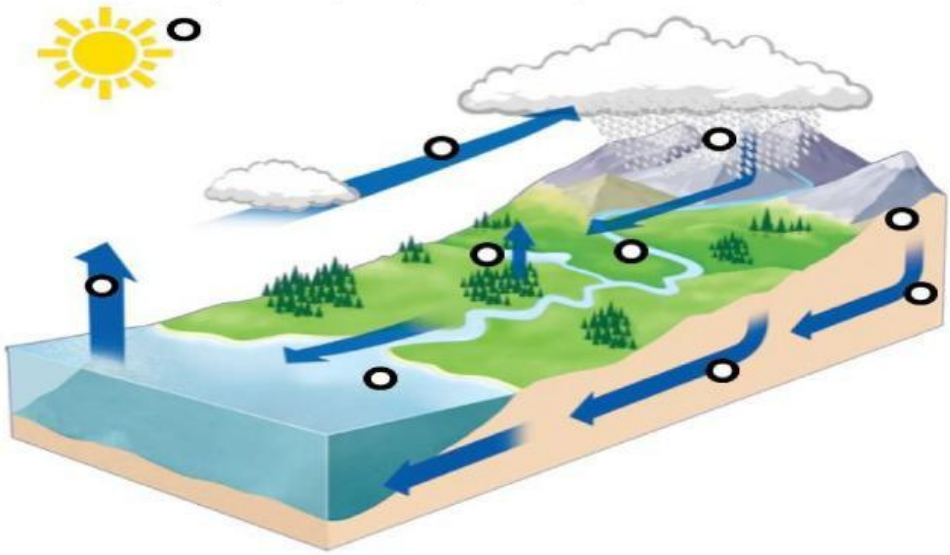
7. _____ The process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers.

8. _____ The process by which water from rain or irrigation soaks into the ground and replenishes aquifers.

9. _____ The process of water collecting in bodies of water on Earth, such as lakes, rivers, oceans, and streams.

Part 2: Labeling the Water Cycle Diagram – Drag & Drop or write the processes at their correct location.

Surface Runoff
Infiltration
Accumulation
Condensation
Percolation
Groundwater
Evaporation
Energy source
Transpiration
Precipitation



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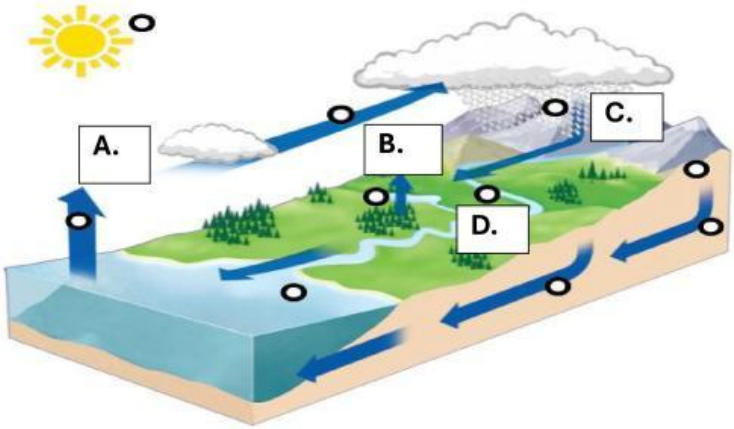
Part 3: Interactive Diagram Analysis
Instructions: Answer the following questions based on the water cycle diagram.

1. **Which process is responsible for water entering the atmosphere from plants?**
   a. Condensation
   b. Transpiration
   c. Precipitation
   d. Runoff
2. **What is the main source of energy driving the water cycle?**
   a. Gravity
   b. Solar energy
   c. Wind energy
   d. Earth's core heat
3. **Identify the reservoir in the water cycle that holds the most freshwater.**
   a. Oceans
   b. Atmosphere
   c. Glaciers and ice caps
   d. Groundwater
4. **In which part of the water cycle does water seep into the soil to recharge aquifers?**
   a. Evaporation
   b. Infiltration
   c. Condensation
   d. Transpiration

Part 4: Water Cycle EOC Questions Prep



5. Which labeled arrow in the diagram represents *transpiration*, the process by which plants release water vapor into the atmosphere?

a. Arrow A
b. Arrow B
c. Arrow C
d. Arrow D

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Learning Target: I can explain the importance of the cycling of water through the living and nonliving parts of the environment.

6. What is the primary energy source that drives the process illustrated in the diagram?

a. Wind energy b. Solar energy c. Geothermal energy d. Chemical energy

7. Which of the following is the largest reservoir of water in the water cycle?

a. Groundwater b. Oceans c. Glaciers d. Atmosphere

8. How does urbanization most directly affect the water cycle?

a. It increases evaporation rates.

b. It decreases runoff and increases groundwater recharge.

c. It increases runoff and decreases infiltration.

d. It reduces precipitation.

9. A graph shows monthly precipitation and evaporation rates for a region in Georgia. During which months would groundwater recharge be the highest?

a. Months with the highest evaporation rates

b. Months with the highest precipitation rates

c. Months with equal precipitation and evaporation

d. Months with low precipitation rates

10. How might prolonged droughts affect the water cycle?

a. Increase infiltration into aquifers

b. Decrease evaporation and transpiration

c. Increase runoff into streams and rivers

d. Decrease groundwater recharge and reduce precipitation

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