## 3.7 WATER CYCLE

## VA Standards of Learning:

- 3.7 The student will investigate and understand that there is a water cycle and water is important to life on Earth. Key ideas include:

  - a) there are many reservoirs of water on Earth; b) the energy from the sun drives the water cycle;
  - c) the water cycle involves specific processes.

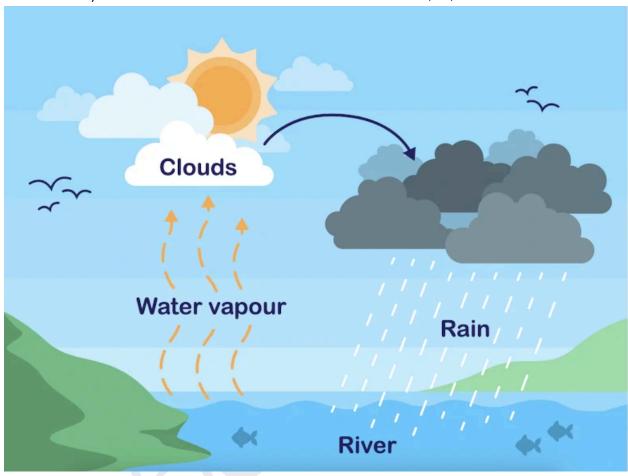
Vocabulary:	Definition:	Example(s):
Water Cycle	How water is formed and moves on earth	Clouds Water vapour Rain
Condensation	The changing of a gas to a liquid	CONDENSATION
		COLD GLASS WARM MOIST AIR CONDENSATION
Evaporation	The changing of a liquid into a gas	Evaporation

Precipitation	Moisture that falls to the ground: rain, snow, sleet, or hail	
Clouds	Water droplets in the air that group together	Types of Clouds  High-level Cirrus (CI)  Cirrostratus Cirrocumulus  (Ca)  Mid-level Mid-level Altosurutus Altostratus (As) (Re)  Cumulus (Cu) Stratocumulus (Sc)  Cumulus (Cu) Stratus (St)
Reservoir	An artificial or natural lake where water is collected as a water supply	
Watershed	An area of land that catches rain and snow. Then it drains it into a stream, river, lake, or other body of water.	A Watershed  watershed divide  watershed divide  percolation  groundwater (aquifer)

## **Examples and Explanations**:

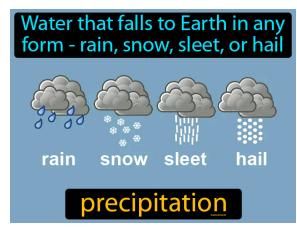
The water cycle is important because its process provides Earth with the natural, continual water supply all living things need <u>to survive</u>.

The water cycle is the continuous movement of water on, in, and above the Earth.



As with all cycles, it does not have a specific beginning or end point. The energy that drives this cycle <u>comes from the Sun</u>.

During the water cycle, liquid water is heated and changed to a gas (evaporation). The gas is cooled and changed back to a liquid (condensation). A liquid or a solid falls to the ground as precipitation.









## Test-Like Questions:

- 1. <u>Vocabulary Identification</u>: The model that shows how water is formed and moves on earth.
  - a. The Rock Cycle
  - b. A Food Chain
  - c. A Food Web
  - d. The Water Cycle
- 2. What source of energy drives the water cycle?
  - a. Electricity
  - b. Sun
  - c. Water
  - d. Gas
- 3. Select the three processes that are involved in the water cycle?
  - a. Evaporation
  - b. Pollution
  - c. Condensation
  - d. Precipitation

4.	During the water cycle, water can change
	a. It provides energy for the sun
	b. All living things on Earth need water to survive
	c. It creates land for humans to live on
5.	What causes water to evaporate?
	a. Heat from the sun
	b. Cold temperatures in the atmosphere
	c. The roots of the plants
	d. Precipitation from the clouds
6.	When water evaporates, it changes from
	a. A solid to a liquid
	b. A liquid to a gas
	c. A gas to a liquid
7.	When condensation happens —-?
	a. Water vapor is cooled and changed into a liquid
	b. Water falls from the clouds
	c. A never ending cycle
8.	When water vapor condenses in the atmosphere, it forms?
	a. Rain
	b. Clouds
	c. Rivers
	d. Oceans
9.	What are the major water resources in Virginia?
	a. Icebergs
	b. James River
	c. Rocks and Grass
	d. Sun and Rain
	e. Rain or Snow
	f. Newport News Reservoir
10.	Which force causes water droplets to fall to the ground as precipitation?
	a. Heat
	b. Density
	c. Gravity
	d. The Sun
11.	Why is the water cycle important?
	a. It provides energy for the Sun
	b. All living things on Earth need water to survive
	c. It creates land for humans to live on
	d. It is not important

12. Label the model using the following vocabulary words: evaporation, condensation, precipitation, and run-off

