Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**States of Water**

* Water can take the form of a **solid** (ice), a **liquid** (water), or a **gas** (water vapor).
* Adding heat or taking away heat changes the state of water.
* Water freezes (turns into ice) at 32 F / O C
* Water boils (turns into water vapor) at 212 F / 100 C

**The Water Cycle**

* The **water cycle** is the movement of the earth’s water from the earth’s surface (evaporation) to the atmosphere (condensation) and back to the earth’s surface again (precipitation).
* The water cycle affects weather on a daily basis.
* The **sun** provides the heat that is needed to warm water during the water cycle.
* **Evaporation** occurs when liquid water changes into **water vapor**. Evaporation is the changing of a liquid into a gas.
  + The amount of water vapor in the air is called **humidity.** A large amount of water vapor in the air is high humidity. A small amount of water vapor in the air is low humidity.
* **Condensation** occurs when water vapor cools or loses its heat. It is the changing of a gas into a liquid.
  + **Clouds** are formed as water vapor in the air cools and condenses on tiny dust particles in the air.
  + **Fog** is a cloud close to the ground which forms when the air is damp and the ground is cold.
* **Precipitation** is water that falls to the earth as rain, snow, sleet, or hail.
* **Runoff** is the flow of water on land towards streams, rivers, lakes and oceans.

**Types of Precipitation**

* **Rain** is liquid water falling from the sky. It forms when condensation causes the tiny water droplets in clouds to grow and become heavier. Eventually, the droplets become too heavy and they fall to the earth as rain.
* **Snow** is very small amounts of water (smaller than raindrops!) that freeze and stick together and fall to earth.
* **Sleet** is raindrops that fall through cold layers of air.
* **Hail** is frozen raindrops which rise and fall many times through warm and cold layers of air, getting bigger each time.

**You should be able to...**

* Use a drawing of the water cycle to identify and explain where and why evaporation, condensation, precipitation and runoff occur