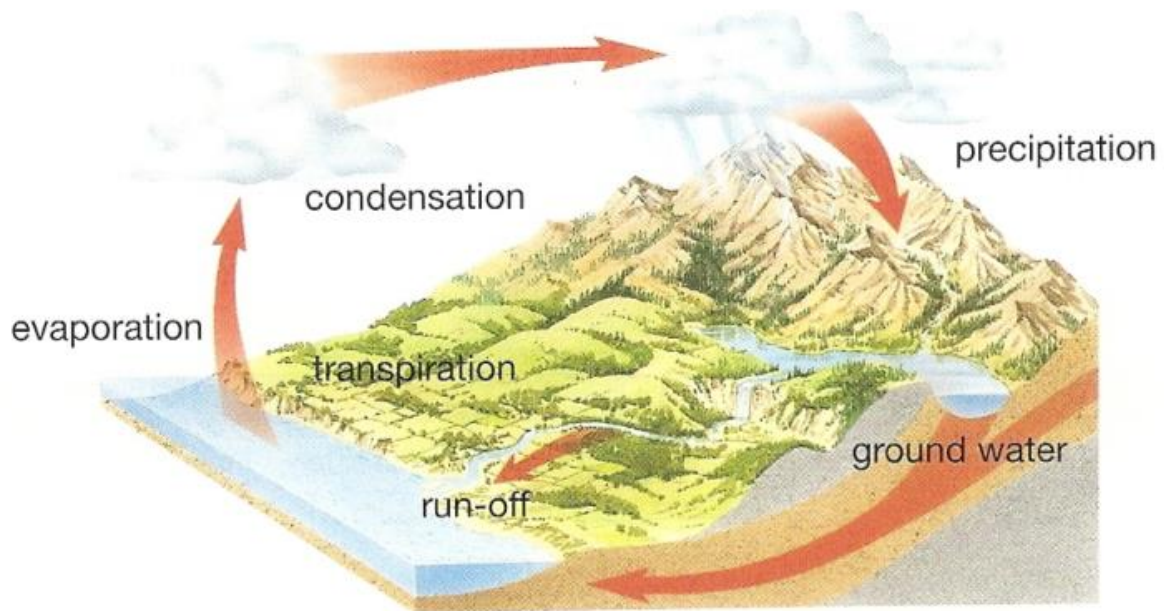
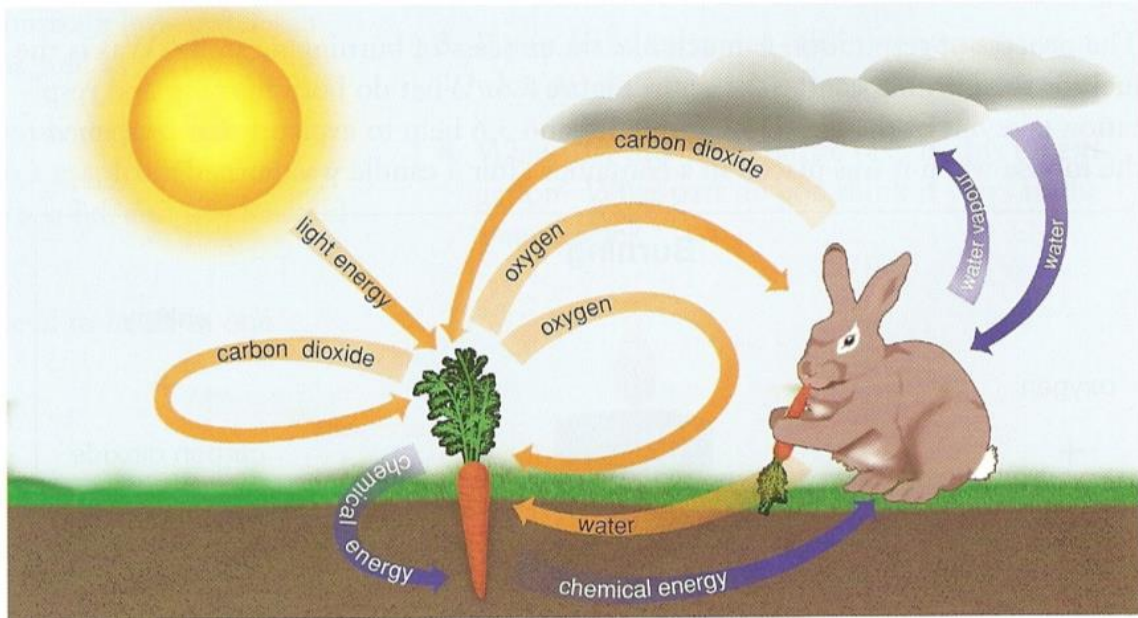


The Water Cycle



- The water cycle collects and purifies the Earth's water
- All living things require water to complete necessary life processes
- Living things contain a significant amount of water (human is 60-70% water)
- Water evaporates from bodies of water, as well as from animals and plants
 - This leaves behind any dissolved chemicals, purifying the water
 - When water evaporates through plants it is called transpiration
- The water vapour collects in the clouds, where it condenses
- Precipitation is the act of water returning to the Earth in liquid form
- As water leaches down into the ground it takes chemicals, which plants need, with it (this is a negative)
- Plants send roots deep into the soil to bring chemicals back from the ground water

The Carbon Dioxide and Oxygen Cycle



- The Carbon Dioxide and Oxygen Cycle (or simply the Carbon cycle) provides necessary resources to all living things
- Photosynthesis is the act of a plant turning sunlight into chemical energy (food)
 - Sunlight is used to break apart water molecules and combine them with carbon dioxide to form glucose, a type of sugar
 - Oxygen is left over and is released by the plant

Carbon Dioxide + Water + Sunlight → Oxygen + Glucose

- Respiration is the act of an organism breaking down food to obtain the energy
 - BOTH animals and plants use respiration
 - Oxygen is used to break apart the glucose to be used by the organism
 - Water and Carbon Dioxide are left over and released

Glucose + Oxygen → Carbon Dioxide + Water + Energy

- For an ecosystem to function there needs to be a balance of Carbon Dioxide and Oxygen
- Other nutrients also cycle in the ecosystem
 - When an organism dies it returns chemicals and energy to the soil
 - When an animal releases waste there are trapped nutrients in it, which become available to other animals or plants