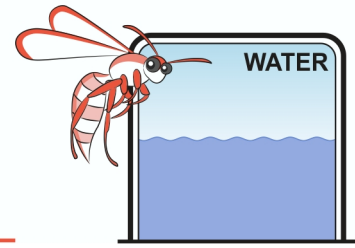
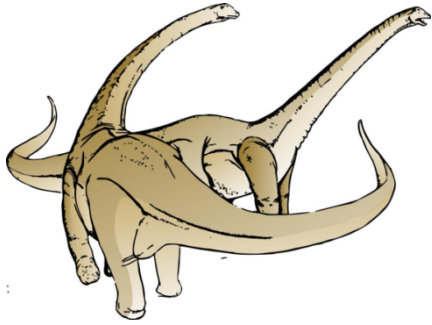


The Water Cycle – Teacher Notes



Watch the WASP animation 'The Water Cycle' – available at <https://www.youtube.com/watch?v=b6YrP47CbGk> or by Googling ESWA and following the links. Then read the questions below before watching the animation again, to answer them.



Which limited resource could you and dinosaurs both have shared?

Drinking water.

Do you think that it is possible that some of the water molecules in your body may have been breathed out by a dinosaur? Perfectly possible but statistically unlikely.

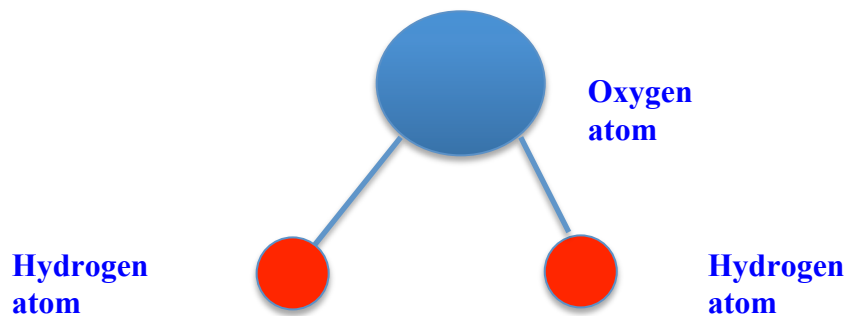
Why do plants and animals need water?

They use nutrients dissolved in water to build their bodies.

What atoms are needed to make one molecule of water?

Two atoms of hydrogen and one of oxygen or H_2O . (The word hydrogen means "water maker").

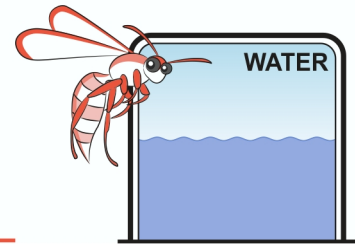
Draw a diagram of a water molecule (don't forget to label!) showing its atoms and bonds:



How many molecules of water would it take to make one drop of water?

Billions upon billions

The Water Cycle – Teacher Notes



Fill in the blanks below to finish the facts about the water cycle:

The water cycle describes how water moves through the **Earth's crust, atmosphere and oceans**.

Heat from the Sun causes **liquid** water to **evaporate** from rivers, lakes and oceans and it becomes a gas called **water vapour**.

As the gas rises, it **cools** and **condenses** to create **clouds**.

Water returns to the ground as solid **hail** and **snow** or liquid **rain** and sinks into the earth.

Below the ground it forms **aquifers** where water is held between grains in rock layers, **sands and gravels**.

Where aquifers intersect or cut the surface of the ground the liquid water flows out to form **lakes, rivers** and **oceans**.

Differences in elements, such as oxygen, can be used to estimate the **age** and **possible source** of water.

A process is an event or series of events that cause a change to occur. Some processes that occur in the water cycle are listed below:

Condensation Transpiration Absorption Penetration Evaporation

Please place the correct process in the correct place in the paragraph below:

Evaporation of liquid water turns it to water vapour. On rising into the atmosphere and cooling, **condensation** returns it to a liquid to create clouds. The water falls back towards the ground as rain, hail or snow. It **penetrates** the soil and is **absorbed** by plant roots. **Transpiration** by the plants returns it to the atmosphere.

Draw a simple flow chart of the complete water cycle using these same words:

