



# The Water Cycle



## The importance of water

- More than **seventy five percent** of the Earth's surface is covered by water. You'll find water in the air, under the ground and in lakes, rivers, seas and oceans.
- All **animals and plants** need water to **survive** and the human body is more than three-quarters water. Life-forms use water to **carry nutrients** around their body and to **take away waste**. Water also helps to break down food and to keep organisms cool.
- We use water in our homes, both **indoors and outdoors**. For example, we use water for drinking, food preparation, washing hands, bathing/showering, brushing teeth, toilet flushing, washing clothes and watering plants.

## MOST COMMON USES OF WATER



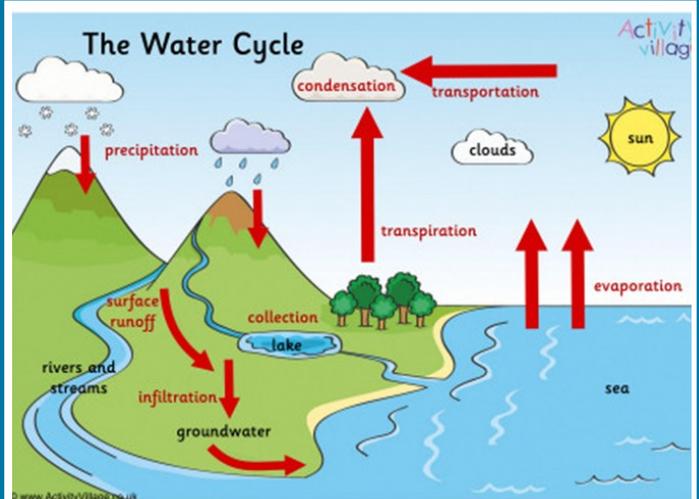
Domestic



Agricultural



Industrial



There are four main stages in the water cycle:

### Stage 1 (Evaporation)

Water evaporates into the air. The sun heats up water on land, in rivers, lakes and seas and turns it into water vapour. The water vapour rises into the air.

### Stage 2 (Condensation)

Water vapour in the air cools down and changes back into tiny drops of liquid water, forming clouds.

### Stage 3 (Precipitation)

The clouds get heavy and water falls to the ground in the form of rain, hail, sleet or snow.

### Stage 4 (Collection)

Some of the rain water seeps into the soil as ground water or is absorbed by rocks. Some of the rain water runs over the land and collects in lakes or rivers, which takes it back to the sea. The water cycle starts all over again.

## Vocabulary

- water cycle** How water travels round the world and moves between the ground and air.
- condensation** The change from a gas to a liquid state. Water vapour in the air gets cold and changes back into liquid, forming clouds.
- evaporation** The change from a liquid to a gas. The sun heats up water in rivers, lakes or the ocean and turns it into a gas called water vapour which rises into the air.
- precipitation** The water that falls to the ground as rain, hail, sleet or snow.
- collection** When water that falls from the clouds as rain or snow collects in the oceans, rivers and lakes.
- transpiration** The process in which plants give off moisture into the atmosphere.
- aquifer** A water-bearing rock such as chalk, limestone and sandstone.
- runoff** When water flows over the land rather than be absorbed into groundwater or evaporated.

## What can I do at home?

- Make a water diary and record all your different uses of water in a week.
- Research the different stages of the water cycle: evaporation, condensation, precipitation and collection.
- Create a 3D model of the water cycle.
- Watch what happens to a puddle on a hot day.
- Browse the following websites:  
<http://bbc.co.uk/bitesize/topics/zkkg87h/articles/z3wpp39>  
<http://natgeokids.com/uk/discover/science/nature/water-cycle>  
<http://pmm.nasa.gov/education/videos/water-cycle-animation>