

BMA Education

Sky to Tap

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Bathroom Manufacturers Association

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This Education Fact Sheet shows you how water which we use everyday when we turn on a tap makes its journey.

There is an old saying “what goes up, must come down” - which is a very simply way to describe the water cycle.

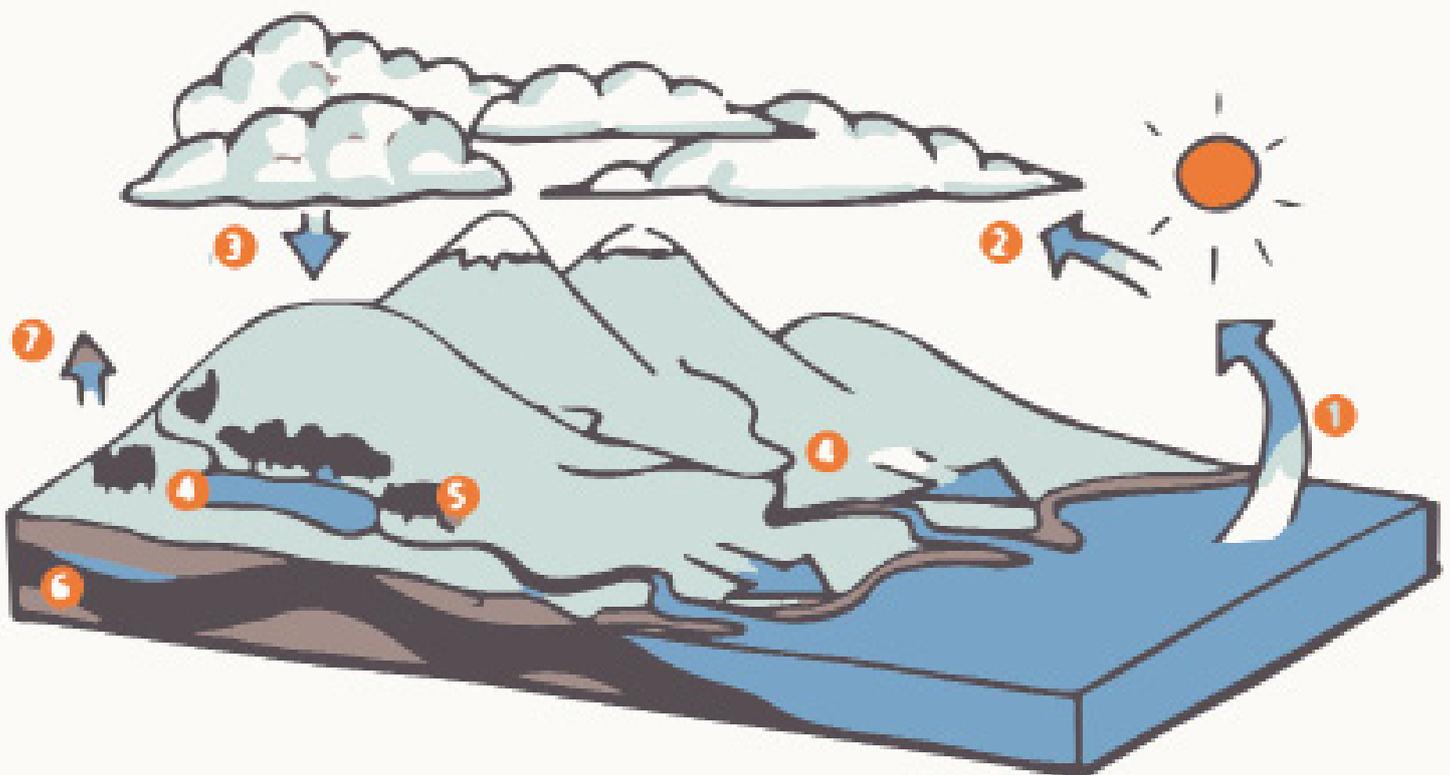
Put it simply the Water Cycle is when water from the sea or land evaporates, rises into the atmosphere, condenses and falls back to earth, where it collects and the whole cycle starts again. It is actually more complicated than that so here are some explanations on how the Water Cycle works and how water goes from ‘Sky to Tap’.

1 When it is heated by the sun, water from the surface will evaporate and rise into the air to become a cloud. Evaporation is the word that describes the change when water is warmed up and chnges from liquid state to a gaseous state.

2 When there is enough water vapour in the atmosphere the water cloud droplets begin to gather together to form clouds. When clouds become bigger, cool and the water droplets grow they become heavier and begin to fall becuae of their weight.

3 We call this ‘precipitation’ - this is a word which is used for rain, snow or hail. If the atmosphere is cold enough the water vapour will freeze and grow into snow crystals and fall as snow flakes or the rain droplets themselves freeze to become hail.

4 When the rain falls back to earth, it gathers into streams and rivers which flow into lakes or flow straight back into the sea. If it falls as snow on mountains in fairly mild climates, it will stay during the winter months, but wil melt in summer and run into the river system. In very cold climates the snow and ive never melts because it is too cold (e.g. polar regions), and the water stays locked in this area for very long periods. Water always flows to the lowest point possible which is ‘sea level’. That is the simple way in which water starts in the sea and ends up back there when it has fallen from the sky.





Once we have finished using the water in our homes it has to be removed.

- 1 All the water from washbasins, sinks, showers, baths, bidets and toilets, flows from the various waste pipes in the house into the household drains which are just below the surface (usually beneath the path or driveway to your house).
- 2 These link up with the bigger pipes of the underground drainage system (sewer pipes), normally beneath roadways, which take the dirty water away from the buildings and the land etc.
- 3 This dirty water (known as sewage) is sent to a water treatment plant where the solid and semi-solid waste is separated in large settlement tanks.
- 4 These are normally located away from houses because they take up lots of space and they used to be smelly. Nowadays modern technology has made them less smelly.
- 5 The water is then cleaned and purified and released back into the river systems. It eventually flows back into the seas and rejoins the water cycle to start its journey all over again.

Keywords

Water Cycle

The whole cycle where water starts in the sea and is returned.

Evaporation

When water is warmed up and changes from its liquid state to a gaseous state.

Transpiration

Plants suck up water from the ground and some evaporates from their leaves back up and some into the atmosphere.

Condensation

This is the opposite of evaporation. Condensation occurs when a gas is changed into a liquid by cooling.

Precipitation

This is the 'posh' name for rain, snow or hail (or sometimes mixtures of all three). When the temperature and atmospheric conditions are right, the small droplets of water in clouds form into larger droplets and rain falls, or if it is colder snow or hail.

Infiltration

Rain will either soak into the ground or it passes through the soil and into the underlying rock layers and either becomes stored in them or underground lakes.

Runoff

Rain water that runs off the surface of the land, and flows downhill into streams, river, ponds and lakes.

Drains

Pipes usually made of clay or plastic which take sewage or rainwater from properties. These join together (usually under the road) into bigger drains which serve a whole village or town.

Sewage

The name for used dirty water from houses and factories which goes into water treatments plants.

Purification

Fresh water from reservoirs is purified using chemicals so that it is safe to drink and use before it is piped to your house.

Atmosphere

The Earth's atmosphere is a mixture of gasses that forms a gravitational field strong enough to prevent the gasses escaping.

The main ingredients of our atmosphere are nitrogen 78%, oxygen 21%. The remaining 1% includes water vapour and trace amounts of other gases necessary for life.

Sea Level

Is the level of the surface of the sea with respect to the land taken to be the land taken to be the mean level between high and low tide.

Water Table

The highest level of water contained in underground rocks and natural lakes (note: the water table can be different in an area depending on the local geography).

Reservoir

A place where water is stored - this can be a natural lake or valley which has a dam placed across it to stop the water escaping. It can also be an entirely man-made structure either above or below ground.

Treatment Plant

An industrial building which cleans and purifies fresh water before being pumped out to households.

Chlorinated

Process where chlorine is added to the water in small amounts to kill off any germ but is still safe to drink.

Mains Water

The water which arrives at your house through pipes ready to use for drinking or washing.

Storage Tank

A water tank (usually upstairs to create water pressure) used to store the cold mains water).

Boiler

A heater unit which heats up the water from the storage tank before pumping it into the hot water tank.

Hot Water Tank

A storage tank where the hot water is kept before it gets used around the house for washing and bathing.



The Bathroom Manufacturers Association (BMA) is the trade association that represents the major manufacturers of bathroom products, ranging from sanitaryware, baths, taps, showers, enclosures, accessories and furniture.

Members of the BMA offer products with an outstanding combination of quality, style, design, colour and availability.