

The sun heats up the sea. Water **evaporates** from the sea or rivers into the air.





Trees breathe out water vapour through their leaves – this is called **transpiration**.





As the water vapour rises it gets colder and condenses to form clouds.





When water droplets in the clouds get too big and heavy they fall from the sky as rain, snow or hail. This is called precipitation.





Some of this water **feeds** plants, trees and animals. The rest of the water **flows** into lochs, reservoirs and rivers.





Rivers take the water back out into the sea where the Water Cycle starts again.





Scottish Water pipes water from reservoirs to the water treatment works. Here it is cleaned to take out any dirt or harmful bacteria.





The water is now ready to drink and is piped into homes and businesses.





Once the water has been used, the waste water is piped to the **waste water treatment works** to be **filtered** and **cleaned**. It is then piped back into the river or sea and the **Water Cycle** starts again.





# The Water Cycle



**Teacher Notes** 



## The Water Cycle Flash Card Game

### **Suggestions for teachers**

Use one set (10) of Flash Cards. Hold up each one and ask the class what they think it shows – explain the different **stages** of the **Water Cycle** as you go through each card.

Try and make this section interactive. Encourage children to guess even if they are not sure and try to give quieter children a chance to speak. Ask a different child every time.

The different stages of the Water Cycle:

- Stage 1 The sun heats up the sea. Water evaporates from the sea or rivers into the air.
- **Stage 2** Trees breath out water vapour through their leaves this is called **transpiration**.
- Stage 3 As the water vapour rises it gets colder and **condenses** to form clouds.
- **Stage 4** When water droplets in the clouds get too big and heavy they fall from the sky as rain, snow or hail. This is called precipitation.
- Stage 5 Some of this water feeds plants, trees and animals. The rest of the water flows into lochs, reservoirs and rivers.
- Stage 6 Rivers take the water back out into the sea where the Water Cycle starts again.
- Stage 7 Scottish Water pipes water from reservoirs to the water treatment works. Here it is cleaned to take out any dirt or harmful bacteria.
- **Stage 8** The water is now ready to **drink** and is piped into homes and businesses.
- Stage 9 Once the water has been used, the waste water is piped to the waste water treatment works to be filtered and cleaned. It is then piped back into the river or sea and the Water Cycle starts again.

Stage 10 The Water Cycle.

#### **Flash Card Game**

- Split the class into groups of no more than 5.
- Ask them to turn all of the cards so that the pictures are face up.
- Ask them to shuffle them around the table.
- Set a time in which they will have to put the stages in order. (For older children the time should be shorter).
- Once the time is up have the pupils stand back from their desks.
- Pick a group and ask them which stage they put first.
- Have all the groups turn over their cards and see if they were right.
- Repeat for each stage asking a different group each time.

#### **Teacher Notes**



#### Scottish Water and the Water Cycle

Now that you are comfortable the groups are familiar with the **Water Cycle**. Ask them to think about where we use water every day.

They may say - to drink, to wash, to clean etc.

Ask them how they think water gets to their homes. Older children may be able to tell you about pipes etc or even Scottish Water.

#### To finish – revisit the Flash Cards

You should ensure that you explain the role Scottish Water plays in getting water to them. Ask them where on the **Water Cycle** they think Scottish Water fits - from **stage 7** on the flash cards.