

The water cycle

Name: _____

Let's recap:

What happens to ice if you heat it up?

What happens to water when you heat / boil it?

What happens to liquid water when you freeze it?

What happens to water vapour when it is cooled?



Listen to the water cycle song:

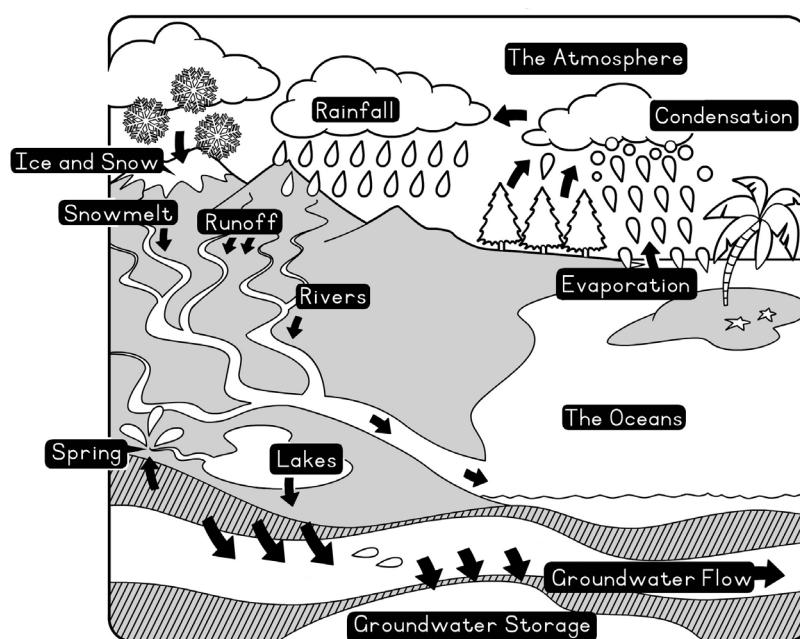


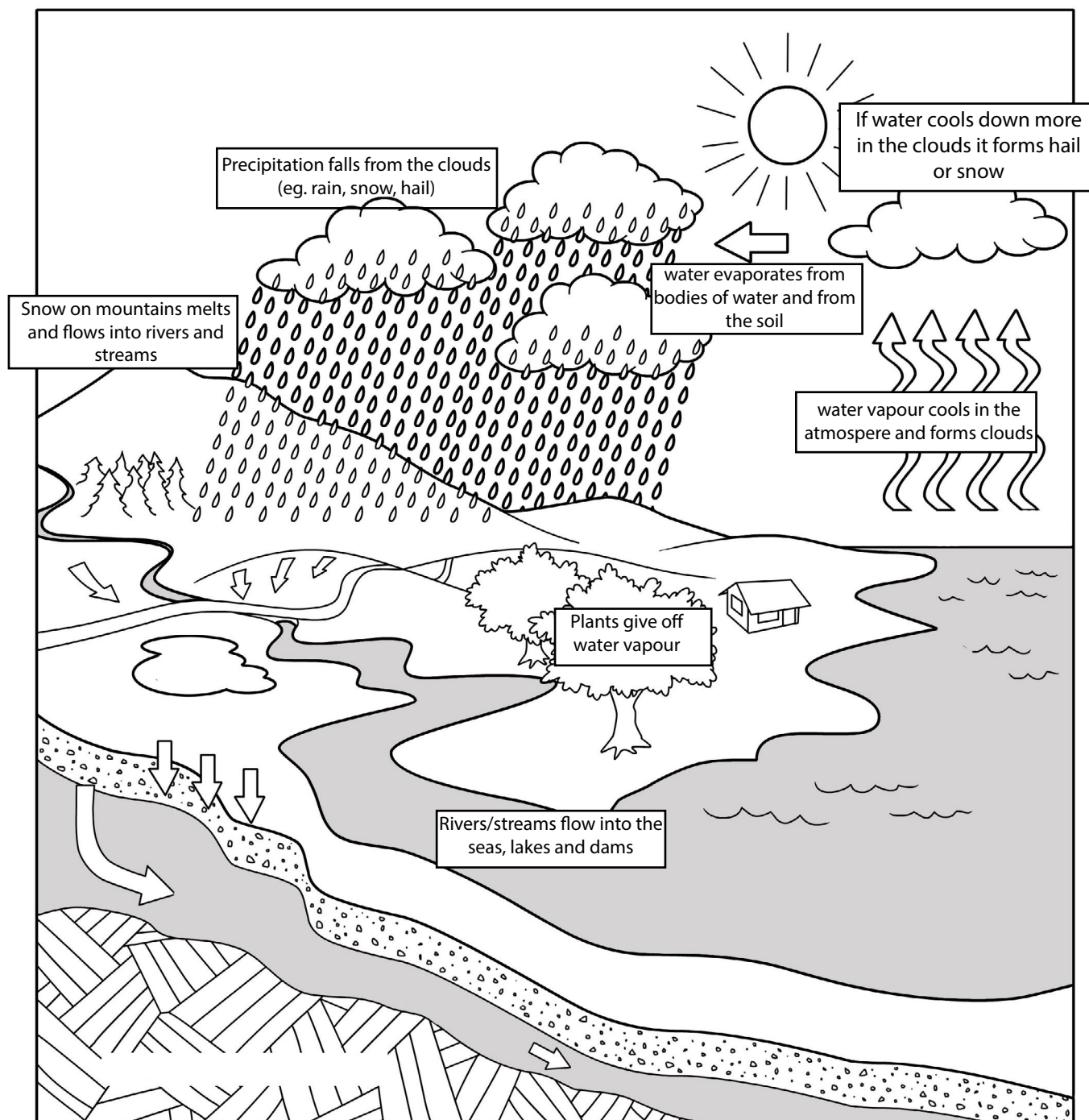
<http://goo.gl/kr6451>

The changes in the states of water happen naturally in our environment as well.

This is known as **the water cycle**. It is called a water cycle because water changes from one state to another constantly as it is heated and cooled.

The diagram on the right shows a basic water cycle. Look at the more detailed diagram on the next page and colour in the blocks **red** that talk about water being **heated** and colour in the blocks **blue** that talk about water **cooling**.





Here's a summary of the water cycle and the changes in state that happen at each step.

- Snow (**SOLID**) on the mountains is heated by the Sun and melts to become **LIQUID** water.
- This water flows into streams and rivers and travels to the seas, lakes and dams. It also flows into the soil and is used by plants.
- Plants use the **LIQUID** water and release water vapour (**GAS**) which evaporates into the air.
- Heat from the sun causes water (**LIQUID**), in the bodies of water (seas, rivers, etc), to evaporate as well and become water vapour (**GAS**).

- All of this water vapour (**GAS**) in the atmosphere cools down and condenses into water droplets (**LIQUID**) which join together and make clouds.
- The water droplets in the clouds may fall as rain. They may cool down even further up in the atmosphere and make hail or snow (**SOLID**).
- The precipitation (like rain, snow or hail) falls to the ground and the whole process starts again.

Revision Activity

Answer the following questions:

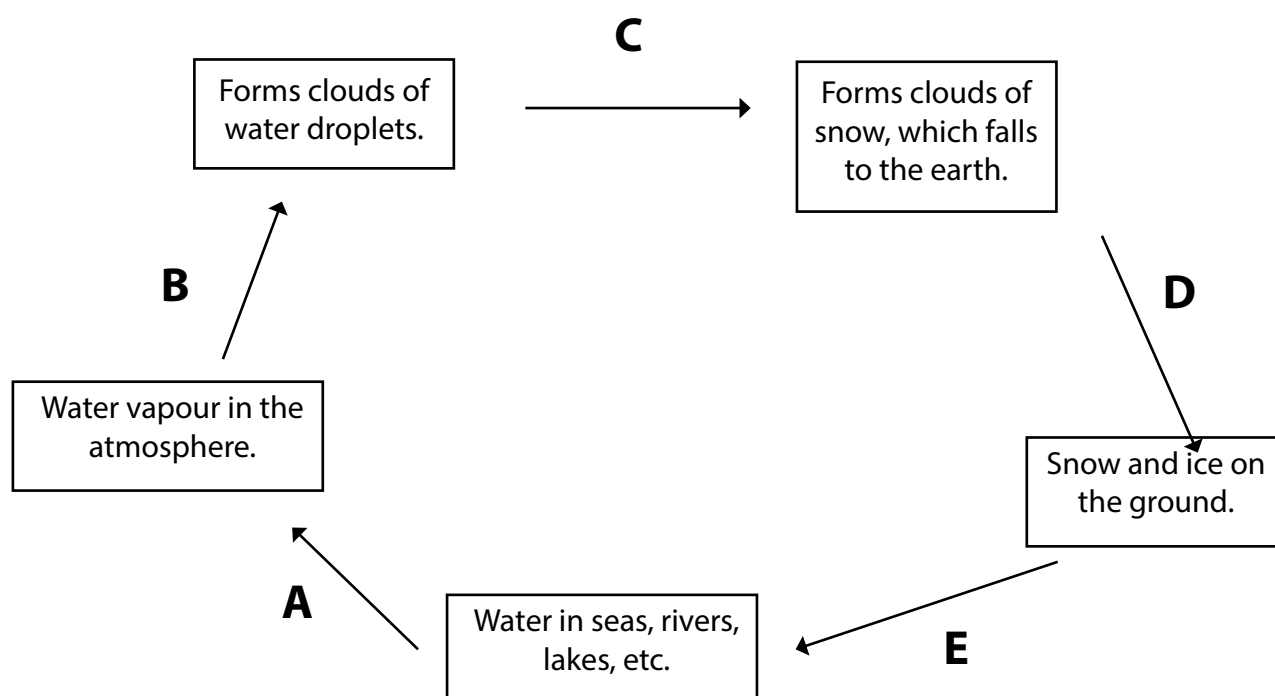
1. Where does the heat come from that causes evaporation to happen?

2. Name four places where water can evaporate from.

3. What happens to the water vapour when it cools down in the atmosphere?

4. Name two ways that water can get back to the Earth from the clouds.

5. Look at the diagram below. The task is to write the term for the label (A, B, C, D).



Memorandum

Let's recap:

What happens to ice if you heat it up?

It melts and becomes liquid water.

What happens to water when you heat / boil it?

It evaporates and becomes liquid water vapour (gas).

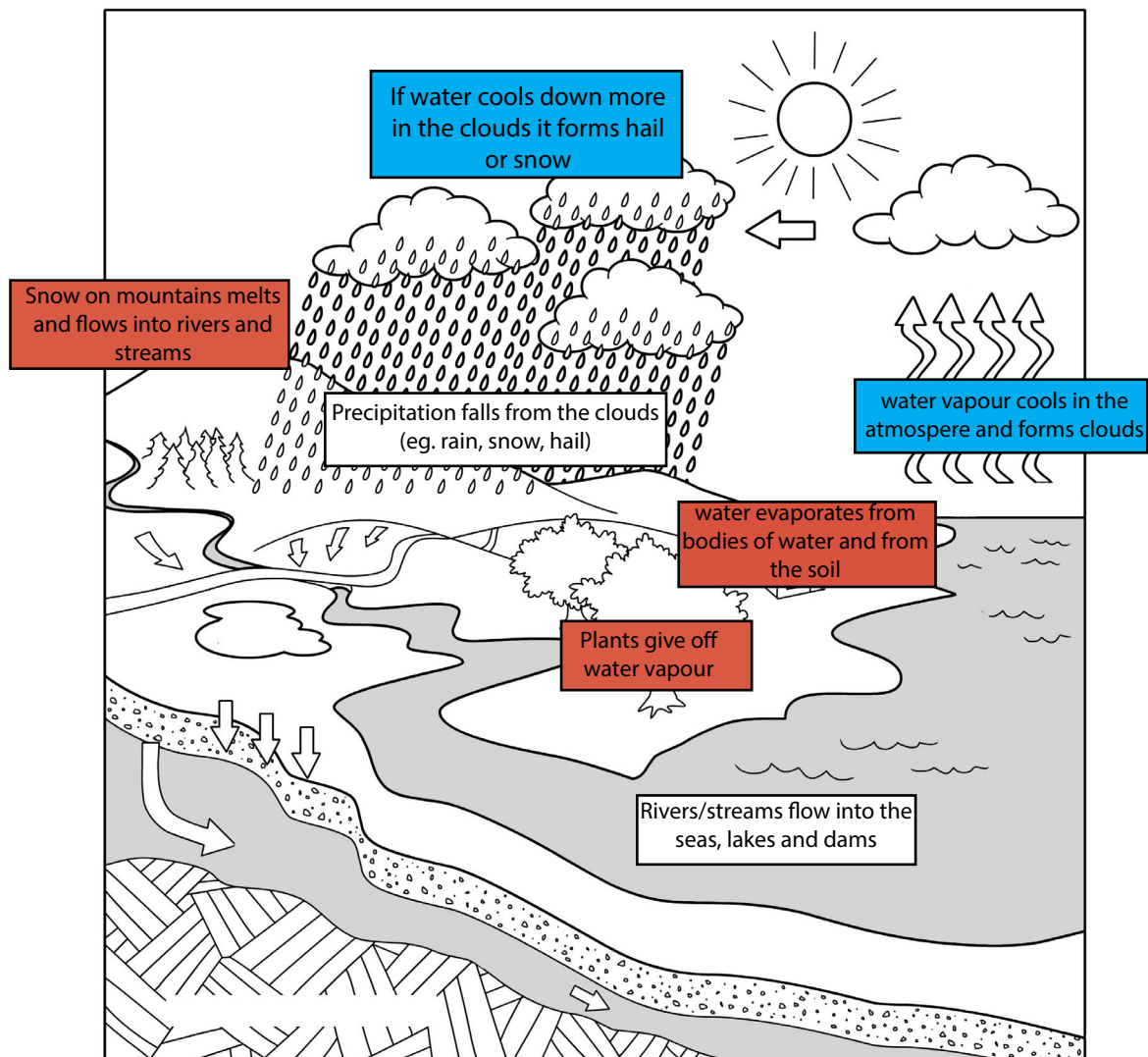
What happens to liquid water when you freeze it?

It solidifies into ice.

What happens to water vapour when it is cooled?

It condenses into liquid water.

Look at the more detailed diagram on the next page and colour in the blocks **red** that talk about water being **heated** and colour in the blocks **blue** that talk about water **cooling**.



Revision Activity

Answer the following questions in your book:

Where does the heat come from that causes evaporation to happen?

The heat comes from the Sun.

Name four places water can evaporate from.

Rivers, Seas, Lakes, Dams, Soil, Plants.

What happens to the water vapour when it cools down in the atmosphere?

It condenses into water droplets that make clouds.

Name two ways that water can get back to the Earth from the clouds.

Any precipitation: rain, hail, snow, dew, etc.

Look at the diagram below. Label the processes that make the water change state at each point (A, B, C, D).

- **A - Evaporation**
- **B - Condensation**
- **C - Solidifying**
- **D - Precipitation**
- **E - Melting**