



# Fieldwork investigations - Identifying clouds

Fieldwork involves observing, measuring, collecting and recording information in the real world. Have you ever about what the shape and size of a clouds means? Learn how to identify clouds using a cloud chart.

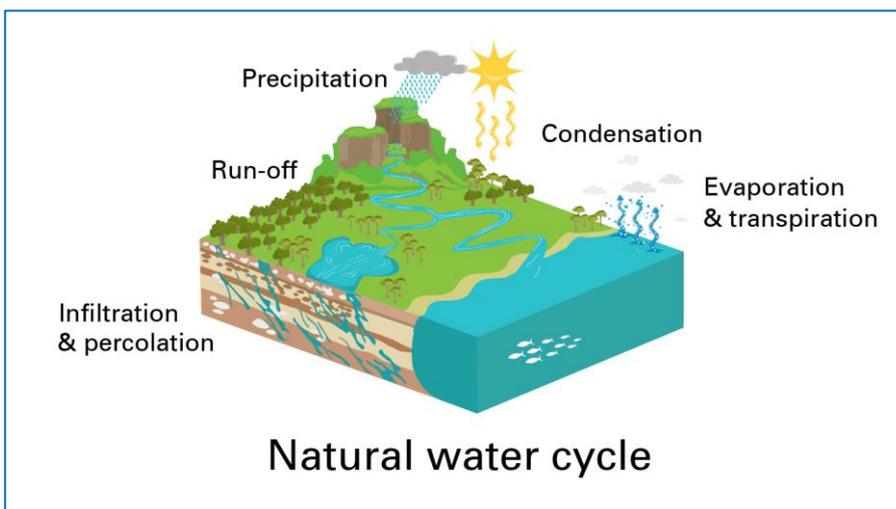
## What are clouds? Why do we need to identify clouds?

When the sun heats the water on Earth, it evaporates turning from liquid to gas also known as water vapour.

As the water vapour rises into the atmosphere it cools turning back into tiny water droplets that form the clouds this is called condensation. This is part of the water cycle.

Clouds are made up of tiny water droplets.

The size and shape of clouds can tell us a lot about the weather. Dark heavy clouds are carrying lots of moisture and usually means it will rain soon. High wispy white clouds often means it's windy.



The natural water cycle moves water from the Earth to the atmosphere - and back again

By using your geographic observations skills, you can work out what cloud you are looking at and what it means.

## What you'll need?

- Cloud ID Chart
- Cloud recording sheet
- Clipboard, pen or pencil
- Camera (optional)

Cloud Name	Cloud Description	Type of Weather	Cloud Illustration or Picture
	Describe what you have seen. E.g. Bright white look like big fluffy cotton balls. Hang low in the sky.	Describe the weather on the day. E.g. Weather is fine, mild temperatures and light wind	Hand drawn or insert image taken

Recording sheet example



## How to identify clouds?

Before you go outside to look at clouds, think about what we know about clouds already? For example

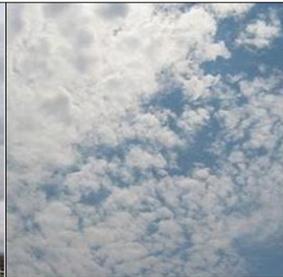
- Have you ever heard someone say “It looks like rain”? Why did they say that?
- Have you ever watched a sunset and thought its prettier with those clouds.

Steps to follow to complete you observation and identify clouds.

1. Go into your school playground/oval, backyard/garden, park or shared rooftop area, find a comfy spot and lie down. Make sure you are safe when you are looking up at the sky and wearing eye protection.
2. Have your cloud identification chart with you showing the different types of clouds.
3. Clouds can be at different heights in the sky, with different shapes and colours.
  - Estimate how high the clouds are
  - What shape are the clouds?
  - What colour are the clouds?

## Cloud Identification Chart

Use this chart when out in the field to make observations about different types of clouds.

				
<p><b>Cirrocumulus (above 18,000 ft)</b> Thin, pure white fields of small grains or ripples at a high level. Each element is smaller than 1 finger (arm outstretched).</p>	<p><b>Cirrostratus (above 18,000 ft)</b> Transparent milky or fibrous veil, casts shadow, produces halo. Sun or moon appears as a bright patch. Uniform, continuous or broken layer.</p>	<p><b>Cirrus (above 18,000 ft)</b> White, wispy fibres or filaments. Hooks, feather, bands or patches with silky shimmer.</p>	<p><b>Altostratus (6,500 – 18,000 ft)</b> Elevated grey or bluish to dark grey sheet-like layer. Smooth, extensive layer; casts no shadow, even if sun/moon is recognizable as a blurred dot.</p>	<p><b>Altostratus (6,500 – 18,000 ft)</b> White/grey patches (lens shaped or balls of cotton), sheets or structured layer with undulations or rolls. Each rounded element is 1-3 fingers in size.</p>

Hints:

- If you're having trouble trying to figure out what cloud it is, why not decide what it's not.
- It is possible that the sky may have more than one cloud type. You may also classify clouds differently depending on where you are standing and viewing a cloud.
- The great thing about clouds is that, unless it's one of those rare perfectly sunny days, they're everywhere. All you have to do is look up.

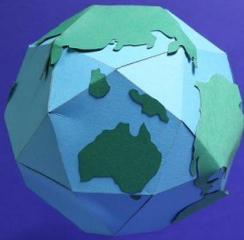
## Results

- What are some of the limitations when trying to identify clouds?
- Explain why the water cycle is referred to as a closed system.
- Why is evaporation and condensation so important in the formation of clouds?

### What cloud will bring rain to our dams?

Cumulonimbus and nimbostratus. These clouds are easier to pick out. A general rule of thumb is if it's stormy, it's cumulonimbus. If it's not, it's nimbostratus.

**Our water comes from many sources, but it's all that we have**



Rain clouds over the ocean

Go to our [water sources](#) page to learn more.

### Extension

1. Why not have a go at making your own cloud with our [Make a cloud](#) experiment. See how clouds are made? How did they get there? What are they made of?
2. Why not make it a long-term study? Record your cloud identifications into your recording sheet over a week, a fortnight or a month. Look at your results and identify any patterns over time.

Ask yourself:

- a. What has influenced this pattern?
- b. What benefits do clouds bring to people, animals and the environment?
- c. Identify factors that may influence the type of clouds and how long they stay?

### Want to know more?

There's lots to learn about water. Go to our [education](#) pages to discover the value of water for [Primary school](#), [High school](#) and beyond.

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