



Reading the Weather

As mountain leaders we need to learn how to read the weather. This is important in predicting what might happen and helps us keep safe in the mountains. A good starting point to reading the weather is recognising cloud formations and what they might mean.

Cloud Formations

Below are some of the most common cloud formations and how you can read them to understand what the weather might do.

Cloud type	Description	What does it mean?
High (4,500 – 12,000m)		
 <p style="text-align: center;">Cirrocumulus</p>	<p>Cirrocumulus clouds are usually neatly aligned groupings of small clouds high in the sky.</p>	<p>In the UK, cirrocumulus clouds usually mean a spell of fair weather. However, in some tropical areas, these clouds can mean a hurricane is coming!</p>
 <p style="text-align: center;">Cirrostratus</p>	<p>Cirrostratus clouds look like long thin sheets high in the sky. They are translucent and usually the sun or moon can be seen through them. Sometimes this makes the sun or moon have a 'halo'.</p>	<p>If you see cirrostratus clouds, you can usually expect rain or snow in 12 to 24 hours. A good saying is, "<i>Circle around the moon, rain or snow soon.</i>"</p>



Cirrus

Cirrus clouds are very wispy clouds and occur very high in the sky (up to 12km!) They are always made of ice particles, even in the summer.

A few cirrus clouds are generally a sign of fair weather, with more clouds indicating an approaching warm front.

Mid
(2,000 – 6,000m)



Altocumulus

Altocumulus clouds look like a striped blanket that covers much of the sky, alternating between white and grey cover. The term 'mackerel sky' refers to these clouds as they look like the skin of a mackerel fish!

If you see a mackerel sky and the weather is feeling warm and humid, you can expect thunderstorms. Remember: "*Mackerel sky, storm is nigh.*"



Altostratus

Altostratus clouds are the kind of clouds that cover the entire sky and make the sunlight hazy. They are usually bluey-grey and don't let much light through.

These clouds usually produce rain and drizzle. They are pretty common in the UK and are iconic to our 'grey days'.

Low
(Below 2,000m)



Stratocumulus

Stratocumulus clouds are low and puffy. Usually there are a number of them close together, with not much space between them.

A sky full of these clouds usually signals dry weather.



Nimbostratus

Nimbostratus clouds are dark clouds that block out the sun. They are usually low in the sky but can tower upwards.

These are your typical rain clouds, Their dark colour indicates lots of precipitation – either rain or snow.



Stratus

Stratus clouds are the lower version of altostratus clouds. They form a low, grey and unbroken blanket.

These clouds often produce a mist or a drizzle.

Vertical



Cumulonimbus

Cumulonimbus clouds develop upwards from small fluffy clouds to large towering pillars. A clear way of identifying a cumulonimbus cloud is its flat anvil-like top.

These clouds usually forecast severe weather including heavy rain and lightning.

Activity Ideas / Prompts

- 1) Keep a record of the clouds you can see from your house over a few days. Can you forecast the weather?
- 2) How many different types of clouds can you see at once?
- 3) Research online about more unusual cloud types. Try searching for “mammatus clouds” or “lenticular clouds”.
- 4) Walk a kilometre to get an idea of distance and how high some clouds are (remember some clouds can be 12,000m, or 12 kilometres high in the sky!)
- 5) Craft your own cloud chart – use paint and textured materials like cotton wool to create the different types of clouds.
- 6) Get an adult to download the App, *A Cloud a Day* – this is a great resource for helping you identify the clouds you can see.