

4.1 Forecasting the Weather

Try This Activity

How I Am Being Assessed _____

Forecast Sayings

Consider this weather saying: Halo 'round the Sun or Moon, rain or snow coming soon.

The weather explanation for this saying comes from the idea that the first clouds to appear when a warm front meets a cold air mass are wispy cirrus clouds. The ice crystals in these clouds bend the light from the Sun or Moon, forming a circular halo that warns that unsettled weather is approaching.

Try to match these weather sayings with their correct weather explanations. Write the letter corresponding to each of the sayings under the correct weather explanation in the chart on the next page.

Weather Sayings

- A. Red sky at night, sailors delight;
Red sky in morning, sailors take warning.
- B. Mare's tails and mackerel scales make tall ships take in their sails.
- C. Early thunder, early spring.
- D. After frost—warm; after snow—cold.
- E. When high clouds and low clouds do not march together
Prepare for a blow and a change in the weather.
- F. When teeth and bones and bunions ache
Expect the clouds to fill the lake.
- G. In like a lion, out like a lamb.
- H. Rain long foretold, long last
Short notice, soon past.
- I. Rainbow in the morning gives you fair warning.

Weather Explanations

Early March in Canada is still winter and therefore tends to have harsh, cold winds. By the end of the month, it is spring and the weather is less harsh.

Wispy cirrus clouds can be followed by a thicker layer that forms bright, clumpy patterns and sometimes looks like scales on a fish. These formations often appear before thicker, lower clouds, winds, and eventually rain.

The passage of a warm front usually brings rainstorms. These storms bring big clouds that sit overhead for hours before it rains. Cold fronts generally move more quickly. If rainfall comes quickly and rains heavily, it usually doesn't last long.

Your blood is under pressure from the pumping of your heart. Outside air pressure presses against you and equalizes the pressure. When the air pressure becomes weaker, the pressure outside and inside your body are not as equal and the body can swell a bit. This swelling can cause sensitive spots to ache. Some people insist they can feel these changes in pressure.

Sunlight at sunset passes through dust particles in a clear sky. This scatters the other colours in the spectrum so all we see is red. The dust is a sign of dry weather to the west because the sun sets in the west. Morning light from the east that strikes wispy cirrus clouds also spreads the light and causes the sky to appear red. These clouds usually come before a warm front carrying rain.

In Canada, we usually have thunderstorms after a hot, humid day. Thunderstorms need a certain amount of heat to develop. It usually takes warm, moist air to generate the kinds of clouds that produce lightning and thunder. The earlier in winter we hear thunder, the warmer it must be, indicating an early spring.

Rainbows appear when the sunlight reflects off falling raindrops and bounces back to your eyes. To see a rainbow, the sun must be behind you. If this happens in the morning when the sun is in the east, the rain must be falling in the west. In Canada in the mid-latitudes, weather generally travels from west to east and therefore is coming your way.

Clouds are blown in the direction of the wind. An incoming front is usually indicated by winds that shift and change direction. The upper winds move in a different direction from the lower winds. Incoming fronts usually bring with them a change in the weather.

Frost usually appears when the skies are clear and high pressure brings in warmer air. It only snows when there is some cloud cover. That cloud cover usually indicates a cold air mass that doesn't move away quickly.

When you have matched your weather sayings to their correct weather explanations, choose your favourite and illustrate it on a large piece of poster paper. Include the weather saying at the bottom.