



Snowflake Diary

Put your hat and boots on, grab a magnifying glass and head outside to look at snowflakes up close. You can catch a snowflake on your sleeve, in your mitt, or on a piece of construction paper and discover the science of snowflakes.

Science tip:

For best results, use dark coloured materials to catch snowflakes. You will be able to see them better!

Observations:

Draw pictures of the snowflakes you catch. Look for patterns using your magnifying glass. Take detailed notes. Are the snowflakes large or small? Track the temperature on each day to discover if the cold weather affects the size of the snowflakes. Are the snowflakes symmetrical? How many sides do you see? Can you find two snowflakes that are identical?

How snowflakes form:

Snowflakes are not frozen raindrops (that is called sleet). Snow crystals form when water vapour freezes. This happens in the clouds. A snowflake begins to form when extremely cold water droplets freeze on dust particles in the sky. This creates an ice crystal. As the ice crystal falls to the ground, water vapour freezes onto the primary crystal, building new crystals, the six arms of the snowflake. All snowflakes on earth have this six-sided symmetry. The smallest snowflakes are referred to as diamond dust crystals. These snowflakes appear more often on bitterly cold days.

The colour of a snowflake:

Snow doesn't always appear white. Deep snow can look blue. Some snow can even appear pink, especially in high alpine areas near the Polar Regions. These areas contain algae with a red pigment (astaxanthin) that tints the surrounding snow. This pink snow is often referred to as watermelon snow.

Science is all around us! Happy experimenting!



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<https://scientistsinschool.ca/resources/>