How are snowflakes formed?

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- 7th Grade -

My prediction:

I predict that snowflakes are formed from ice. They could be formed from many particles of ice that join together to create a snowflake.

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Another prediction is that snowflakes are formed by pieces of snow which are in different shapes- and look like snowflakes

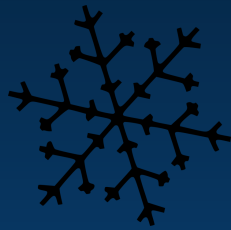
How are they formed?

A snowflake starts from an extremely cold water droplet. It freezes onto a pollen or dust particle in the sky which creates an ice crystal. As the ice crystal falls, water vapor freezes onto it, creating the arms of the snowflake. (earthsky.org)

How do snowflakes get their shapes?

The shape of a snowflake depends on the temperature and the humidity of the air. Snowflakes in colder areas look much different than snowflakes in warmer areas.

Noaa.gov states that snowflakes in more warmer areas look like thin hexagonal plates and stars. In colder areas, they look more like columns.



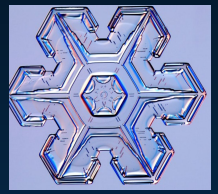
Temperature:	Snowflake Shape:
32 to 25 F	Thin Hexagonal plates and stars
25 to 21 F	Needle-like
21 to 14 F	Hollow Columns
14 to 10 F	Sector Plates
10 to 3 F	Star-shaped
-10 to -30 F	Plates, columns

⬆️ Stated from Noaa.gov

The 5 main Snowflake shapes

Simple Prisms

Stellar Plates



Needles

Stellared Dendrites

Fernlike Stellar Dendrites

Facts about Snowflakes

- There are 35 basic shapes of snowflakes
- A snowflake has about 200 sides
- Snowflakes always have 6 sides
- Snowflakes are actually clear, they look white because of the way the light reflects off the snowflake
- Caltech.gov states that it is a myth that 2 snowflakes can’t look alike, scientists just haven’t found two that look identical yet. Metoffice.gov also states, “There is no scientific proof that no two snowflakes aren’t exactly alike.”

Conclusion

To conclude, in this project, I learned how snowflakes are formed and how they get their shape.

My prediction was incorrect because I originally thought that snowflakes were pieces of snow in different shapes. I now know, after doing my research, that snowflakes are created from frozen dust particles and pollen which freeze onto water drops. The water vapor freezes onto the droplet to make the arms of the snowflake.

During my research, I also learned about the different types of snowflakes. I learned about what causes a snowflake to get its shape and also many other facts about snowflakes.

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