



Make a Hexagonal Prism

Hexagons are the building blocks of snowflakes. They can be long and thin, short and stubby, or wide and flat, but they are always six-sided. This project will show you a three-dimensional view of how a snowflake starts.

1 Start with four marshmallows and four toothpicks. Attach them to make a square. Attach two toothpicks to the marshmallows on the top and bottom of the square. It will look a little bit like a ladder.

2 Attach marshmallows on the four ends of the toothpicks at the top and bottom of the ladder.

Supplies

toothpicks

tiny marshmallows

3 Take four more toothpicks and four more marshmallows. Attach them to make a square. Attach two toothpicks to the marshmallows on the top and bottom. This will make another ladder.

4 Now turn the first ladder on its side. Turn the second ladder on its side. Attach the toothpicks at the top and bottom of the second ladder to the marshmallows at the top and bottom of the first ladder. You will have to bend the ladders to make them fit. When you are done, you will have a six-sided shape—a hexagon! This is what an ice crystal looks like.

5 If you want to keep going and add branches to your ice crystal, you can add toothpicks and marshmallows to each of the six sides. You can use however many toothpicks and marshmallows you want. You can make the snowflakes **symmetrical**, which means that every side will look the same, but you don't have to. Most snowflakes aren't symmetrical—their six branches can look very different.



WOW!

Every snowflake's branches are different from every other snowflake's branches. You could look at every snowflake that has ever fallen and still not find two that are exactly alike.