

3D DESIGN

CREATE A SNOWFLAKE ORNAMENT

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Learn the basics of Tinkercad:

youtube.com/watch?v=cMk3PtAcKrE

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RESEARCH

Go online and search for images of snowflakes to get inspired! Then follow the guidelines below to design your own.

3

SHAPES TO USE

The shapes you use will vary depending on the design you choose. Here are some basic shapes to get started, find these under the **Basics Shapes** tab on the right side of the screen: **Box**, **Cylinder**, **Tube** and **Polygon**.

4

GUIDELINES

Make a shape for the center of the snowflake. Create unique **arm(s)** for the snowflake by changing the proportions of the box shape. Then **copy**, **paste** and **rotate** the arms around the center shape. No arm of the snowflake should be thinner than **3mm** at any point. Make the snowflake **3mm** tall and focus on using shapes with a flat top. Avoid rounded shapes such as the sphere or cone.

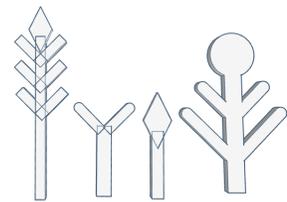
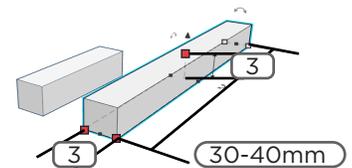
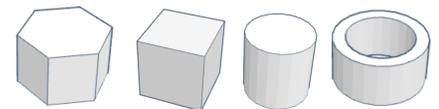
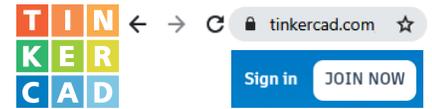
Your final snowflake should be between **80-100mm** in length total. So each arm should be about **30-40mm** long. Make the arms unique!

Make it hangable: on one of the arms, create a hole to hang your ornament from or use the tube shape as a hole.

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CHECK FOR ACCURACY

Make sure your snowflake is flat, view it from all sides to ensure every arm is at the same height. Your snowflake should have a height of **3mm**. Make sure all shapes are touching to ensure they will print together & group all the shapes together.



Arms: make unique arms for your snowflake with the basic shapes.

