

Nebula Spin Art

A **nebula** is a large **cloud of gas and dust in space**. It can be created by a dying star (such as a supernova) and is also where new stars are born.

The dust and gas in a nebula are very spread out, but gravity can pull clumps together. As the clumps get larger, their gravity becomes stronger. If the clumps get large enough, they will collapse from their own gravity, causing the center to heat up. This is the beginning of a new star.

Nebulae (more than one nebula) exist in **the space between stars**. We call this **interstellar space**. The closest nebula to Earth is called the Helix Nebula and is about 700 light-years away. This means that if you travelled at the speed of light, it would take 700 years to get there.

Pictures of nebulae often include many different colors. Scientists use colors to represent different elements and the characteristics we can't see with our naked eyes.

Materials:

- Salad spinner
- Thick paper or coffee filter
- Liquid paint (we dilute ours with water: 3 parts paint, 1 part water)
- Paint brush or dropper



Try This:

1. Put your paper in the bottom of the salad spinner. You may need to trim your paper to fit inside.
2. Drip a few drops of paint onto the center of the paper. For best results, use several different colors. The more paint used, the longer your creation will take to dry. Start with a few drops of each color - you can always add more later!
3. Put the lid onto the salad spinner and spin it for 5-10 seconds.
4. After the spinner stops spinning, pull your creation out to observe and let dry.

Think About It:

- What happened to the colors you put on your paper?
- How would you describe the pattern or shape of your nebula?
- Why do you think the colors spread out from the center of the paper?
- Many nebulae are named for the shape that they resemble. For example, there is a Butterfly Nebula and a Cat's Eye Nebula. Looking at the shape of your nebula, what would you call it?