

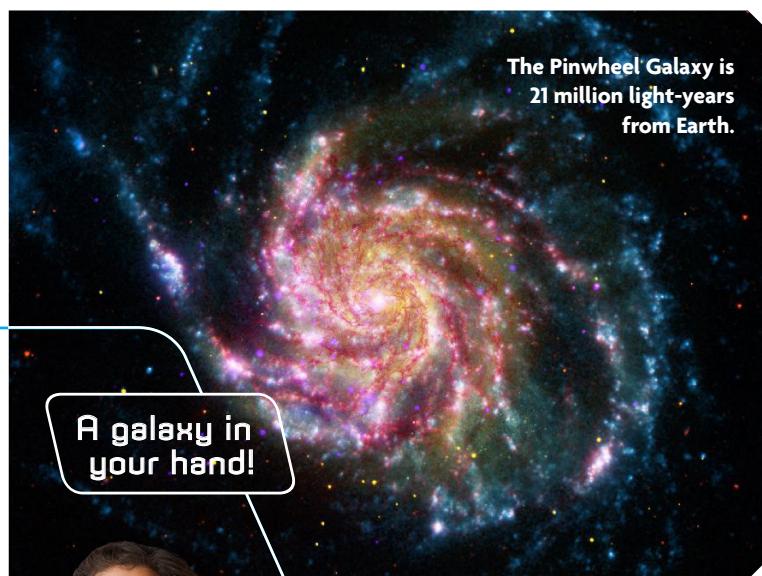
# MAKE A PINWHEEL starring the Pinwheel Galaxy

**Where are you?** If you were to make a map of your location, what would you put on your map?

You're in a **state**, which is in a **country**, which is on a **planet**.

**But keep going!** Your planet (Earth) is in a **solar system**, which is inside a **galaxy** called the Milky Way—just one of the trillions of galaxies in the **universe**. It's amazing to think about how massive the universe is!

Now you can hold a little part of our big universe in your hands by making your own version of a spiral galaxy called the Pinwheel Galaxy.



The Pinwheel Galaxy is 21 million light-years from Earth.

A galaxy in your hand!



## What You'll Need

- ★ Pinwheel Galaxy printout (next two pages)
- ★ Chenille stems
- ★ Chopstick or Popsicle stick
- ★ Scissors
- ★ Single hole puncher

Get even more excited about space with **Luciana** by Erin Teagan at [scholastic.com/american-girl](http://scholastic.com/american-girl).

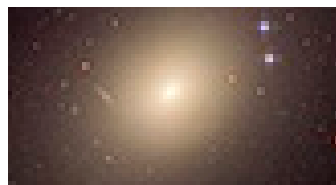


## More About Galaxies

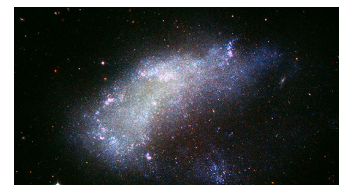
A galaxy is a huge collection of gas, dust, and billions of stars. Galaxies are held together by gravity. Check out the three types of galaxies.



**Spiral galaxies** have curved “arms” that make them look like a pinwheel.



**Elliptical galaxies** are smooth and shaped like ovals (elliptical means oval).



**Irregular galaxies** have—you guessed it—irregular shapes.

# Your Pinwheel Galaxy Pinwheel Blueprint

**1**

Cut out the hexagonal shape for your Galaxy Pinwheel.

**2**

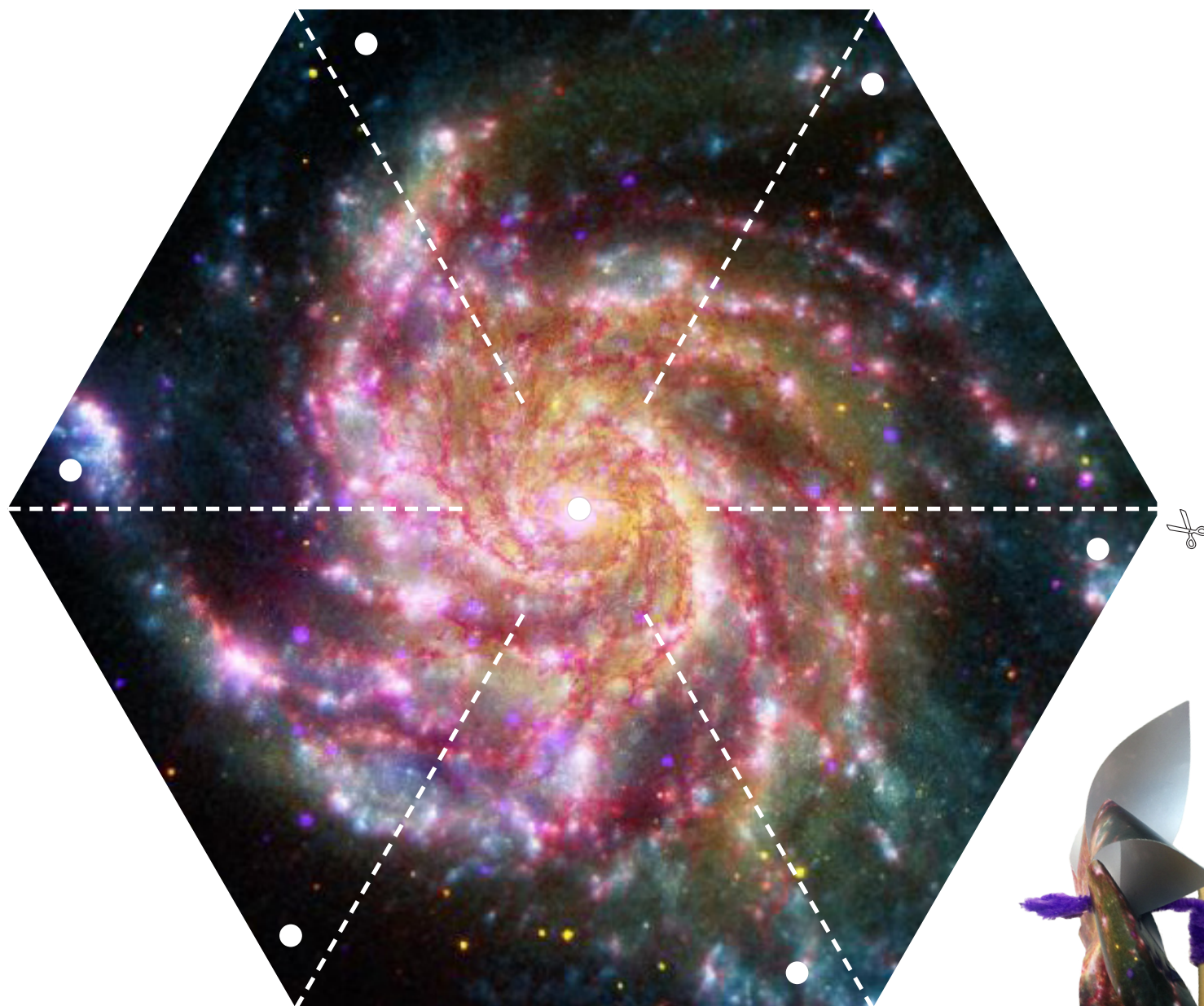
Cut along the dotted white lines.

**3**

Punch holes in the white circles: six around the edges and one in the center.

**4**

Turn the paper so it's facedown.



**5**

Thread a chenille stem through the center hole. Be careful in case there are sharp edges.

**6**

Going around the circle, fold each flap so the chenille stem goes through each hole.

**7**

Tie a knot in the chenille stem at the front of the pinwheel.

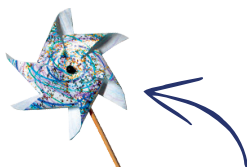
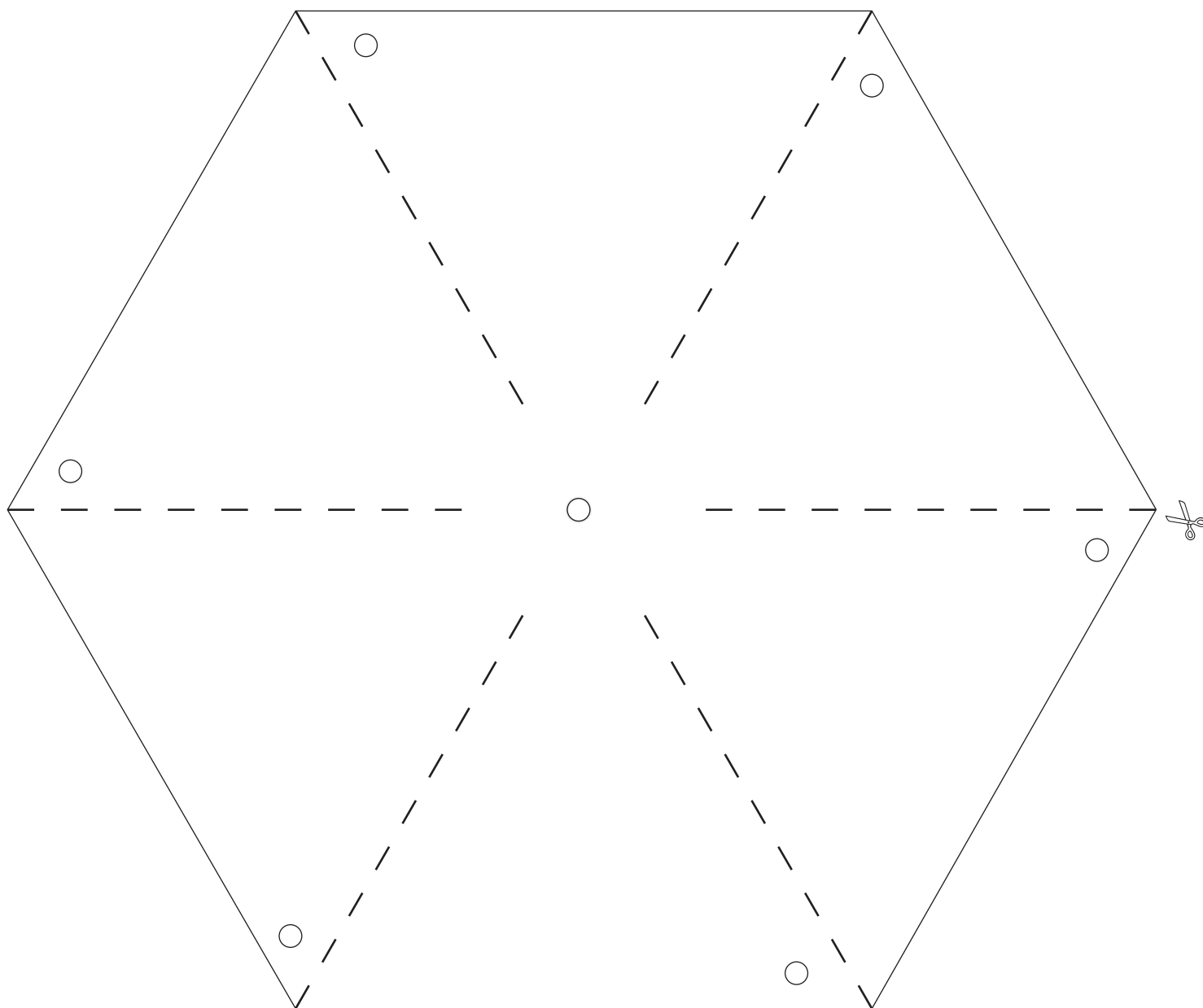
**8**

Wrap the other end of the chenille stem around the stick. Leave space between the pinwheel and the stick.



## Design Your Own Spiral Galaxy!

Use your imagination along with markers, colored pencils, or crayons to draw your own galaxy on the template below. Then follow the directions on the previous page to assemble it.



MAKE YOUR STARS REALLY SHINE BY  
ADDING GLITTER TO YOUR PINWHEEL!

Find out more  
about space  
at [nasa.gov](https://nasa.gov/kidsclub)  
[/kidsclub](https://nasa.gov/kidsclub).