

Observing The Milky Way - Activities (Ages 8-11)



Today we are going to investigate:

- How to find the Milky Way in the sky
- When the Milky Way is easiest to see
- Constellations and rifts in the Milky Way
- What is at the center of the Milky Way

Activities

- 1 The Solar System is located in a galaxy called the Milky Way. A galaxy is a huge number of stars and clouds of gas and dust in space. In some places the Milky Way can be hard to see because of light pollution from street lights. You can use Night Sky to find where it is in the sky. It appears as a fuzzy glowing band running from horizon to horizon.

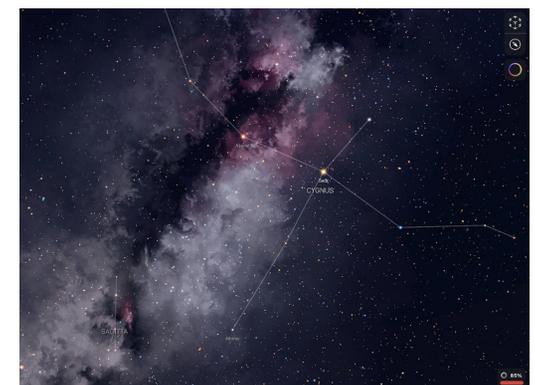
Question: The Milky Way got its name because ancient people thought it looked like a river of milk in the sky, true or false?

- 2 Use the Space travel tab to change the observing date to three months into the future and look to see where the Milky Way is in the sky. Do this again twice so you have observed the Milky Way at four different times of the year.

Question: What seasons will the Milky Way be easiest to see (when it will be highest in the sky)?

- a) Summer and Winter or b) Spring and Fall

- 3 Pick a time when the Milky Way is easy to see. Look along the Milky Way and see how the Milky Way runs through many constellations. In the real sky you can use these constellations to pick out the Milky Way. As you examine the Milky way, see if you can find any dark areas. These are **rifts**, these are really areas of dark dust and gas.



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Question: Which constellations lie at the thickest and densest parts of the Milky Way?

4 Astronomers detected a supermassive black hole near the center of the Milky Way with radio telescopes. It cannot be seen from Earth but is called **Sagittarius A***.

Question: Go to Night Sky's Main menu and create a Sky Tag showing where Sagittarius A* is in the sky. Its coordinates are 17h 45m 40s -29° 0' 28"

5 Looking at Night Sky you can see thousands of stars all across the sky.

Question: All the stars that you can see actually belong to our Milky Way galaxy, true or false?

What we have discovered:

- The Milky Way appears as a band of light in the sky
- Constellations can be used to find the Milky Way
- Rifts are clouds of gas and dust silhouetted against the Milky Way
- There is a supermassive black hole at the center of the Milky Way

