

Track Jupiter's Moons Like Galileo

Become a Jupiter skywatcher, one night at a time!

Galileo noticed something extraordinary near Jupiter, tiny “points of light” that changed position from night to night. By recording what he saw carefully, he realized those lights were moons orbiting Jupiter. You can do the same with a simple observation log.

What You Will Need

- Notebook or journal (or printed Jupiter Moon Watch Log)
- Pencil or pen
- A clear view of the sky
- Binoculars (helpful) or a small telescope (optional)
- A phone or star chart app (optional, for locating Jupiter)

Step-by-Step Instructions

- Pick four nights over one to two weeks to observe Jupiter. Try to observe around the same time each night.
- Go outside and find a safe, dark spot with an adult. Let your eyes adjust for a few minutes.
- Locate Jupiter. It is often one of the brightest “stars” in the sky and does not twinkle as much as most stars.
- Look closely near Jupiter. With binoculars or a telescope, you may see small dots nearby, these are the Galilean moons.
- In your log, draw a simple line with Jupiter in the center. Mark the positions of any moons you see to the left or right of Jupiter.
- Repeat on the next observation night. Compare your drawings. Do the dots change position?

What to Look For

- Do the moons appear on different sides of Jupiter on different nights?
- Do you see more moons on some nights than others?
- Does brightness, clouds, or light pollution change what you can see?

Galileo Fun Fact!

Galileo's careful notes showed that the moons of Jupiter changed position each night, strong evidence that they orbited Jupiter and not Earth.

Safety Tip

Always observe at night with an adult. Dress warmly if it is cold, and choose a safe place away from roads.

Track Your Jupiter Moon Watch Log!**In your observation journal, record**

Date: _____

Time of Observation: _____

Weather and Sky Conditions: _____

What I Saw: _____

Sketch: Draw Jupiter and the moons you observed

Optional Challenge: If you have binoculars or a telescope, try to observe four moons over time. The four largest are Io, Europa, Ganymede, and Callisto. You may not see all four every night, and that is part of the investigation.