

Activity 2: Mapping the Moon

Hello Lunar Explorer!

Galileo was one of the first people to use a telescope to look closely at the moon. He discovered that it had mountains, craters, and valleys just like Earth! In this activity, you will observe the moon and create your own lunar map.

Get ready to study the moon like a true astronomer!

What You Will Need:

- A pair of binoculars or a small telescope (optional, but helpful)
- A notebook or paper
- Pencil or pen for sketching
- A moon phase calendar or a moon app
- A flashlight with red paper (to keep your night vision safe)

Step-by-Step Instructions:

1. Go outside on a clear night when the moon is visible.
2. Find a good viewing spot and observe the moon carefully.
3. Use your binoculars or telescope (or just your eyes!) to notice dark spots, bright areas, and the shape of the moon.
4. Draw the moon on paper. Try to copy what you see craters, shapes, shadows, and outlines.
5. Come back on a different night and see what changes. Add more details to your moon map!

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What to Look For:

- Are there dark spots or bumpy areas?
- Do the shadows on the moon change shape over time?
- Can you guess where Galileo looked?

Galileo Fun Fact!

Galileo's drawings of the moon showed people it was not smooth and perfect. That was a big deal at the time it helped prove that the universe was full of change and discovery!

Safety Tip:

Only observe the moon at night. Never look at the sun through binoculars or telescopes.

Track Your Lunar Discoveries!

Use your notebook to make a Moon Journal. Include:

Date: _____

Phase of the Moon: _____

Details I Saw: _____

Sketch: [Draw here]

Creative Challenge!

- Make a moon map for each phase of the moon.
- Write a story about landing on one of the craters you drew!
- Give names to the areas of your moon map like Explorer Valley or Galileo Ridge.

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Decorate Your Moon Journal!

Add stickers, silver stars, or moon cut-outs. Give your journal a name like Moon Mappers Log or Galileos Night Notes.

You are now a lunar cartographer just like Galileo!