

Activity 3: Model the Solar System

Hello Planetary Explorer!

Galileo's discoveries helped us understand that the sun is at the center of the solar system. Today, you will build a model to show where the planets are and how they move around the sun.

Let's explore the solar system one planet at a time!

What You Will Need:

- Balls of different sizes (to represent the planets)
- A large yellow ball (to represent the sun)
- String or yarn
- Labels or sticky notes
- A large space like a driveway, yard, or gym

Step-by-Step Instructions:

1. Choose a ball for each planet. Make sure Jupiter is the biggest and Mercury is the smallest!
2. Use string to measure and lay out the distance from the sun to each planet. You can scale it using inches or feet for fun.
3. Place the planets in the correct order: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.
4. Label each planet and talk about how each one is different.
5. Walk from the sun to Neptune to see how far it really is!

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What to Look For:

- Which planets are closest together? Which are far apart?
- Which ones are small? Which ones are giant?
- How would you feel traveling that far?

Galileo Fun Fact!

Before Galileo, most people believed everything revolved around Earth. Galileo's telescope showed moons going around Jupiter, proving not everything orbits us!

Safety Tip:

Do this activity in a safe, open area. Watch for cars if working outside.

Your Planet Chart!

Create a table in your journal:

Planet | Size (small, medium, large) | Distance from Sun (in your model)

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Mercury | small |

Venus | small |

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Creative Challenge!

- Create a planet passport with facts about each world.
- Add moons or rings using pipe cleaners or paper.
- Write a story about a journey from the sun to Neptune!

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Build Your Own Solar System!

Call it The Intergalactic Explorer or Galileos Orbit Adventure. Decorate your planets and journal your journey across space!

You are now an architect of the universe just like Galileo helped us become!