

Stellar Solar System

Build your very own galaxy! Learn about the planets while painting and assembling a cosmic mobile.

What You'll Need

• Foam craft balls in assorted sizes	• Washable acrylic or tempera paint
• Paintbrushes	• String, yarn, or clear craft line
• Wooden dowel, hoop, or sturdy hanger	• Cardstock or thin cardboard for Saturn's rings
• Child-safe scissors	• School glue or craft glue
• Optional: star stickers or glitter paper	

Build Your Solar System

- 1. Meet the planets.** Say the planet names in order: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.
- 2. Match the sizes.** Choose smaller craft balls for the rocky planets and larger ones for the gas and ice giants. They do not need to be perfectly to scale.
- 3. Paint each world.** Use pictures of the planets as inspiration. Try gray for Mercury, cloudy yellow-orange for Venus, blue and green for Earth, rusty red for Mars, stripes for Jupiter, pale yellow for Saturn, light blue for Uranus, and deep blue for Neptune.
- 4. Make Saturn's rings.** Cut a ring from cardstock or thin cardboard, decorate it, and carefully fit or glue it around Saturn.
- 5. Let everything dry.** Place the painted planets somewhere safe until the paint is completely dry.
- 6. Add hanging strings.** Have a grown-up help attach string to each planet. Use different lengths so the planets hang at different levels.
- 7. Assemble the mobile.** Tie the planets to a dowel, hoop, or sturdy hanger. Spread them out so the mobile stays balanced.
- 8. Add the finishing stars.** Decorate the hanger with paper stars, planet labels, or a 'Stellar Solar System' sign.

**Super Scholar
Challenge**

Can you put all eight planets in the correct order from the Sun without looking?

Planet Quick Guide

Use these facts while you build, paint, and arrange your cosmic mobile.

Planet	Quick Fact
Mercury	Closest planet to the Sun and the smallest planet.
Venus	Covered in thick clouds and the hottest planet.
Earth	Our home planet and the only world known to support life.
Mars	Known as the Red Planet because of iron-rich minerals on its surface.
Jupiter	The largest planet and home to the giant Great Red Spot storm.
Saturn	Famous for its bright system of icy rings.
Uranus	An ice giant that rotates on its side.
Neptune	The farthest major planet from the Sun and a world with extremely fast winds.

Learning Prompts

- **Order:** Which planet is first, fourth, and eighth from the Sun?
- **Compare:** Which planets are much larger than Earth? Which are smaller?
- **Observe:** What colors and patterns make each planet easy to recognize?
- **Vocabulary:** What do the words orbit, planet, moon, star, and solar system mean?
- **Imagine:** If you could safely visit one planet, which would you choose and why?

Grown-Up Notes

Adult help is recommended for cutting, piercing craft balls, attaching hanging hardware, and balancing the mobile. Use non-toxic craft materials. Keep small foam pieces, beads, and other small parts away from young children. Hang the finished mobile securely and out of reach if it contains small detachable pieces.

Bonus idea: Add a bright paper Sun above the planets, then create name tags for each planet. Older children can add the asteroid belt between Mars and Jupiter.

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