



MAKING A MODEL OF THE SOLAR SYSTEM

Create a scaled model of the solar system using craft materials to learn about the order and relative sizes of the planets.

QUESTION

How can we use a model to represent the planets in our solar system?

HYPOTHESIS

If we make a model of the solar system, then we can see the order of the planets and compare their relative sizes.

MATERIALS

- Foam balls or clay (assorted sizes)
- Paint and paintbrushes
- Wooden skewers or toothpicks
- Black poster board or cardboard
- White paint pen or small star stickers
- Hot glue or tape
- Ruler or measuring tape
- Reference chart of the planets (provided or from a book/website)

SAFETY

- Ask an adult for help when using hot glue.

VARIABLES

- **What you change:** the scale of your model, sizes of planets
- **What you keep the same:** order of planets, materials for planets
- **What you measure/observe:** relative sizes, order, distances in the model

OBSERVATIONS

What did you notice while making your model?

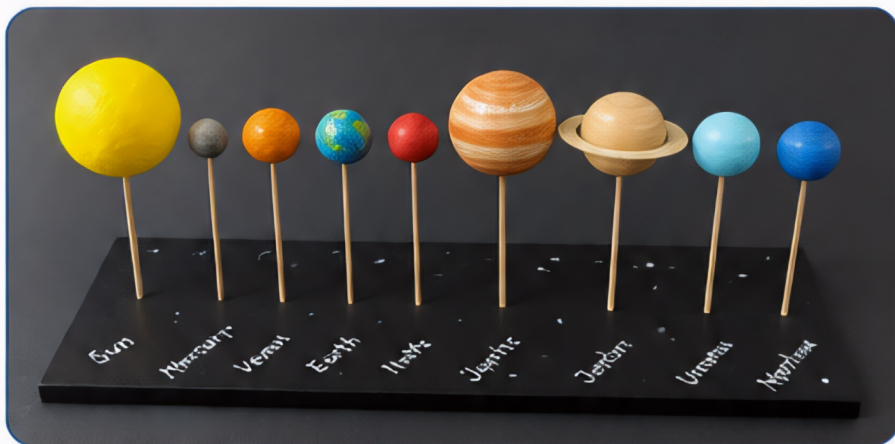
Which planet was the largest in your model? _____

Which was the smallest? _____

How did your model help you understand the solar system? _____

PROCEDURE

1. Research the planets in order from the Sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.
2. Use the reference chart to compare the relative sizes of the planets.
3. Choose a scale for your model. Example: 1 cm ball = about 1,000 km diameter (or any scale you prefer).
4. Create the Sun using the largest ball and paint it yellow.
5. Create the planets using appropriately sized balls or clay according to your scale. Paint each planet.
6. Let all pieces dry completely.
7. Glue or tape a skewer or toothpick to each planet.
8. Arrange the planets in order from the Sun on your black poster board.
9. Use a white paint pen or star stickers to decorate the background.
10. Label each planet.
11. Measure and record the distance between the planets in your model (optional).



CONCLUSION

My hypothesis was (circle one):

Correct / Partly Correct / Not Correct

What did you learn from this experiment?

