

PURPOSE: Children will construct a display of the solar system using common objects to compare the relative sizes of the heavenly bodies.

MATERIALS:

Book Topics: solar system, planets, and astronomy

Beach ball (27 in.)

3-4 fresh peas in a pod or fresh snow peas or draw pictures of peas the following size:

Two peas approximately (1/8 inch)

Two peas approximately (1/4 inch)

Orange (2 ¾ inch)

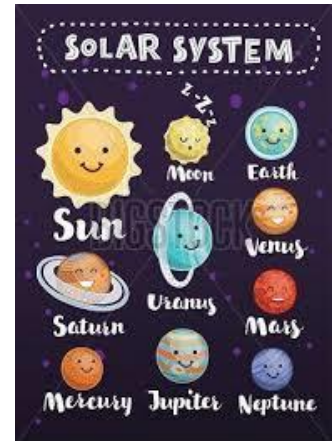
Tangerine (2 ¼ inch)

2 walnuts (one inch)

Paper

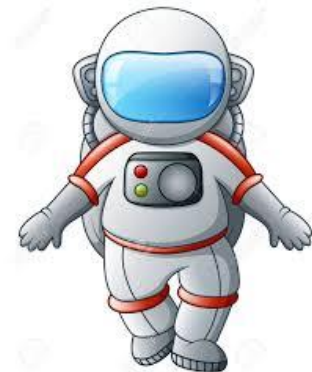
Pencils

Scissors



PROCEDURE:

- Place the following objects on the table in the following order:
 - Place the beach ball on the table. This represents the Sun.
 - Next to the Sun, place one tiny pea. This represents the Mercury.
 - Next to Mercury, place one pea (1/4). This represents Venus.
 - Next to Venus, place another pea (1/4). This represents Earth.
 - Next to Earth, place a small pea (1/8). This represents Mars.
 - Next to Mars, place the orange. This represents Jupiter.
 - Next to Jupiter, place the tangerine. This represents Saturn.
 - Next to Saturn, place a walnut. This represents Uranus.
 - Next to Uranus, place another walnut. This represents Neptune.
- Make a label for each planet. Place them next to the objects.
- Observe the sizes of the planets. Which is the largest? Which is the smallest?
- List all the comparisons that you can make using size. For example, Earth is larger than Mercury.
- List all the comparisons that you can make using locations. For example: Mercury is closer to the sun than Mars.



HOW IT WORKS: Our Earth isn't the only planet that has a special relationship with the sun. There are seven other planets that revolve around the Sun. Some are too close to the Sun's heat to support any life. Some are too far from the Sun's warming rays to support life. An easy way to remember the order of the planets from the Sun is the following sentence: My very educated mother just served us nachos. The first letters stand for the first letters of the planets.



WRITING PROMPT:

You have just learned about the planets and their relationship to the Sun and each other.

Think about a trip from Earth to the planet Neptune. Write about your trip through space and include the planets that you would pass on the way to Neptune.

If the orange, tangerine, and peas are not available, draw pictures of them and follow the procedure.

Parent Signature: _____

**FAMILY SCIENCE PROJECT**

Date: _____

Name: _____

Teacher: _____

Hypothesis (What do you think will happen?)

Date/Observation:

Conclusion: (What you learned or discovered):

*(*You may continue your observation on another sheet. You may want to create a graph to record your data.)*

For the reading portion of Family Science, you may choose to read a book or an article, **OR** you may use the Internet in order to find some background information concerning this Family Science Project. If you read a book or an article, please include the complete title and author. If instead you looked up the information on the Internet, please include the complete website.

We read the following book, **OR** researched the information on the Internet:

Book Title: _____ Author: _____

Complete Website: _____

Writing Prompt (minimum 5 sentences)
