



The solar system

Grade Level: 4-6

Overview The magnitude and complexity of our solar system is often difficult for students to understand. As students investigate and understand the forces of gravity and the consequences of the Earth's movement, they can better comprehend Earth's place in the solar system.

Purpose The purpose of this activity is to show that the solar system is made up of nine planets. Our earth is just one of the planets. These planets make up the solar system-Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Pluto and Neptune.

Objectives Students will be able to:

1. Describe the different bodies that make up our solar system.
2. Arrange the planets in the order of their relative distance from the sun.
3. Explain day and night and the Earth's movement.

Resources/Materials

Maps of the community, country, and world.
A globe,
An illustration or model of the solar system.
String, pencils, and paper.

Activities and Procedures

- i. By using a series of maps, you can help the student visualize the enormity of the universe. Start with a map of the community and continue with a state map, then a map of the country, a globe of the world, and finally an illustration of the solar system.
- ii. To help the students learn the positions of the planets, make up a phrase using the first letter of each planet's name in the order of their distances from the sun. For example: "My Very Educated Mother Just Sat Upon Pink Nests" (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Pluto, Neptune). Note that until 1999, the orbit of Pluto will be closer to the sun than that of Neptune.
- iii. Let the students act out the parts of the sun and the Earth. Have them demonstrate the rotation of the Earth and its revolution around the sun.
- iv. The following Poem describes the phenomena of rotation and revolution of the earth around the sun. Let the children learn the Poem. Help the children to see the science in the Poem.

Poem Title: *Rotation and Revolution.*

Spin, spin goes planet earth
As it rotates on its axis.
Facing the sun for part of the time
Our day turns into night.
Round, round goes planet earth,
On its path around the sun.
Three sixty five days it normally takes
To make one complete revolution.

ELSSA, 1997

Tying it all together Students can use colored styrofoam balls to construct a model of the solar system. Have the students choose a planet, research the planet, and then present this information to the other students. At this time, the students can make a model of the solar system.

Assessment Which planet is nearest to the sun? Which planet is farthest from the sun?

Suggestions/Modifications

- If maps are not available students and instructor may make the maps and diagrams using locally available materials.
- Students may work in groups to create reports about any planet.
- Students may write science fiction stories about life on another planet.

Author(s) Lydia Flynn, St. John Nepomuk Catholic School, Yukon, OK
<http://www.col-ed.org/cur/>