

Set Up a Solar System of Kids

Abstract science concepts, such as vast distances, are often difficult for children to grasp. Use this kinesthetic learning activity to help your fourth grader envision the solar system and its immense size by creating a small scale map of the solar system—using human planets! Your child—and seven of his closest friends—will be one step ahead of the game when they are expected to understand the solar system in school.

What You Need:

- Field or large open space
- 8 children

What You Do:

1. Stand at one side of the field (home base will work well if it is a softball field). Explain to the children that you are going to make a map of the solar system. You will represent the Sun and each of them will represent a planet. The scale you will be using is one step = 36 million miles.
2. Pick a child to mark the place of Neptune. Neptune is 2.8 billion miles away from the sun, or 78 steps. Have this child walk 78 steps in a straight line away from the Sun.
3. The next child represents Uranus, 1.8 billion miles, or 50 steps, from the Sun. This child should follow the same path as Neptune.
4. Next comes Saturn, 885 million miles, or 25 steps from the Sun.
5. Jupiter should stop 483 million miles, or 13 steps from the Sun.
6. Mars is only 142 million miles, or four steps, from the sun.
7. Earth is 93 million miles, or three steps, from the sun.
8. The child representing Venus only needs to take two steps to reach 67 million miles away from the sun.
9. Closest in is Mercury, at only 36 million miles (one step) from the sun.

When they are done with the activity, call the kids back in for a discussion. Given these distances, how long would it take to travel between planets? It took Mariner 4 about 6 months to reach our closest neighbor—Mars. Ulysses reached Jupiter in about 14 months. Voyager II took 12 years to reach Neptune. What will be necessary before space travel, even just within our own solar system, is possible?

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