

Around the Sun

Around and around we go! Explore how the earth orbits the sun and the moon orbits the earth. Students will create a model to visualize the earth, moon and sun's placement throughout the day.

TEKS:

3.8C Earth and space. The student knows there are recognizable patterns in the natural world and among objects in the sky. The student is expected to construct models that demonstrate the relationship of the Sun, Earth, and Moon, including orbits and positions.

How To

Materials:

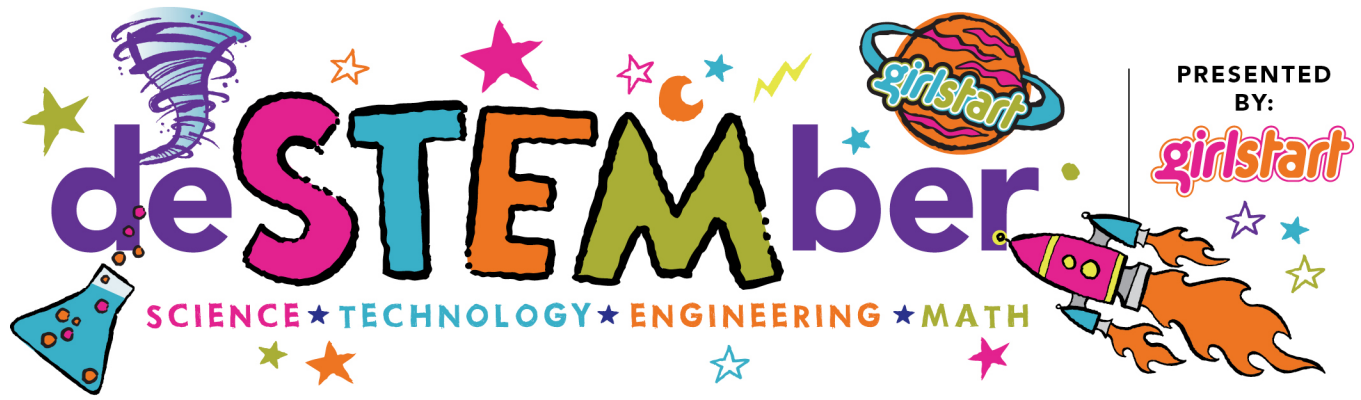
- Brads
- Glue
- Markers
- Scissors
- Template (on page 3)

1. Color and cut out the Earth, Sun, Moon and both rectangles.
2. Glue Moon to labeled end of the short rectangle, then attach Earth on the opposite side with a brad.
3. Attach one end of the long rectangle to Earth using the same brad from the short rectangle and close the brad.
4. Push a brad through the center of the sun. With the same brad, attach the long rectangle piece to the back of the sun.
5. Attach Sun on the opposite side of the long rectangle with a brad and close the brad.
6. While holding the sun in place, rotate the earth around the sun and the moon around the earth to explore the orbital patterns of each object!

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Why Does it Work?

When you look into the sky, it's hard to see how the earth, the sun, and the moon are all moving in reference to each other. This activity demonstrates how the earth revolves around the sun while at the same time the moon is revolving around the earth. Keep in mind that the sun's radius is 109 times larger than the earth's, and the earth's radius is about 3.6 times larger than the moon's! Also, the distance from the earth to the sun is about 93 million miles while distance from the moon to the earth is about 240,000 miles.

Career Connection:

Aerospace engineers develop new technologies for use in aviation, defense systems, and space exploration. They also help develop machines such as satellites and space stations which need special materials to insure that they can withstand the harsh space environment.

Resources: <http://moretime2teach.blogspot.com/2013/02/earths-orbit-misconception.html>
http://www.nasa.gov/vision/universe/solarsystem/sun_for_kids_main.html
http://www.nasa.gov/audience/foreducators/k-4/features/A_Earth_Moon_Mars_Balloons.html

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Earth, Sun & Moon

Color and cut out the Earth, Sun, Moon and both rectangles. Glue Moon to labeled end of the short rectangle, then attach Earth on the opposite side with a brad. Attach one end of the long rectangle to Earth using the same brad from the short rectangle and close the brad. Attach Sun on the opposite side of the long rectangle with a brad and close the brad.

