

# Spinning Around the Sun

Explore how the Sun, Earth, and Moon rotate!

**Warning: This activity can make you dizzy. Use caution.**

## Materials Needed:

2-3 participants. Objects to represent the Earth, Moon, and Sun (balls, round fruit, colorful scarves, printed pictures or paper circles, etc.).



## Instructions:

Decide who will play the roles of Sun, Earth, and Moon, and choose objects to represent each one. The Earth is a good choice for an adult in the group, as it has the most complex movements. For 2-person groups, you can do two separate demonstrations: Earth-Sun and Earth-Moon.



**Step 1: The Sun.** The Sun actor and object goes in the center of a room or outdoor area and stays in one place. The Sun actor can spin their object very slowly. *On average, the sun rotates around itself once every 27 days.*

## Step 2: The Earth orbits the Sun.

- The Earth actor walks with their object in a circle around the Sun. *The Earth orbits around the sun in one year, or 365.24 days (the time between two birthdays!).*
- At the same time, the actor spins the object. *The Earth rotates on its axis (invisible line through the Earth from pole to pole) once every 24 hours, giving us days and nights.*
- Try spinning the object at an angle to show that Earth's axis is tilted. *The side of the earth tilted towards the sun changes through the year, giving us different seasons.*



**Step 3: The Moon.** The Moon actor walks with their object slowly around the Earth as it moves. *The moon orbits the Earth every 27 days.*

**Perform your demonstration in front of your family or take a video for a virtual audience. Next time you see the sun move across the sky, think about the Earth spinning in space, under our feet!**

# Spinning Around the Sun Printables

Print the Sun, Earth, and Moon pictures to use as props, or use the images as inspiration to find or make your own props.

## Sun

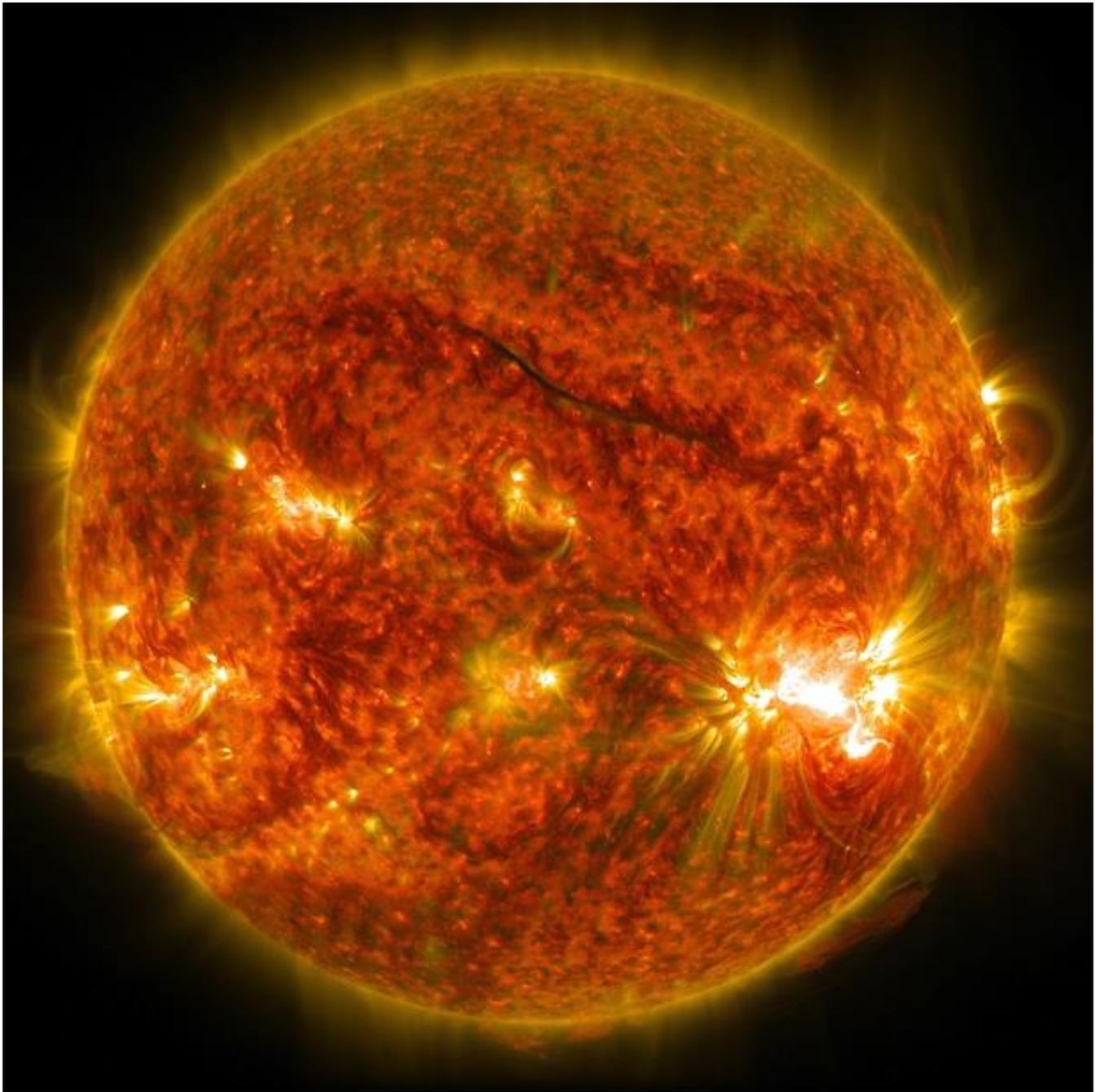


Image from NASA-Goddard: [www.nasa.gov/content/goddard/one-giant-sunspot-6-substantial-flares/](http://www.nasa.gov/content/goddard/one-giant-sunspot-6-substantial-flares/)

# Spinning Around the Sun Printables

## Earth



Image from NASA/NOAA: [www.nasa.gov/multimedia/imagegallery/image\\_feature\\_2159.html](http://www.nasa.gov/multimedia/imagegallery/image_feature_2159.html)



## Moon

Image from NASA:  
[www.nasa.gov/mission\\_pages/apollo/40th/images/apollo\\_image\\_25.html](http://www.nasa.gov/mission_pages/apollo/40th/images/apollo_image_25.html)