



# ASTRONOMY @ HOME

## ON THE MOVE

The stars, planets, satellites, asteroids, comets, etc., in our universe are moving all the time! Many forces affect the way objects move in space.

The Earth, Sun, and Moon all rotate on an axis. An axis is an invisible line on which something spins. An easy way to demonstrate rotating is to choose a spot to stand and spin your body around. Examples of toys that spin on an axis are tops, fidget spinners, Sit 'n Spins, and pinwheels.

The Earth, Sun, and Moon take different amounts of time to complete one rotation. The Earth takes 24 hours to complete one rotation, the Sun takes just over 24 days, and the Moon, approximately 27 hours.

The Earth also revolves around the Sun while the Moon revolves around the Earth. Try this demonstration to learn about how this happens!

## MATERIALS & STEPS

- A small ball of Playdoh or putty
- A round plate
- A golf, bouncy, or other small ball

Lightly stick the Playdoh or putty to the center of the plate. This Playdoh or putty will symbolize the Sun in this demonstration. Place the ball on the edge of the plate. The ball will represent the Earth. Pick the plate up with a hand gently on the edge of each side. Slowly rock the plate back and forth so that the ball slides around the edges in a circular pattern to make your Earth revolve around the Sun. The Moon moves around the Earth in a very similar way.

## VOCABULARY

**Rotate** means to turn about on an axis or a center.

**Revolve** means to move in an orbit around.

An **orbit** is the path that an object takes in space when it goes around a star, a planet, or a moon.

## FUN FACT

The Earth does not orbit the Sun in a perfect circle. If you have an oval tray, you can try to make your ball orbit in a shape closer to how these objects in our solar system move.



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