

Moon

Lunar Characteristics

- The moon is a quarter the size of Earth, and it is Earth's only satellite in space.
- The moon rotates around Earth every 27.3 days, and rotates around itself every 27.3 days as well.
- It reflects light from the Sun.

Study Tip

Since the moon's orbit around itself and around the Earth is the same, we always see the same side of the moon when we look up at the night sky.

Lunar Surface

- The moon has no atmosphere, making it extremely hot during the day, and extremely cold during the night.
- The lunar surface has no plate tectonics, so its surface features stay mostly the same. It has plenty of **craters**, caused by meteorite collisions.
- **Maria** are flat, dark areas that are made of basaltic lava. These were caused when meteorites hit the moon, releasing magma to fill the craters.
- **Terrae** are lighter-colored highlands. These are made of silicate materials that came from the ancient magma ocean.
- There is no evidence of life, but traces of ice are found in extremely cold craters.

Lunar Interior

- The moon has a distinct crust, mantle, and core. Astronauts confirmed this by taking rock samples.
 - The small core is made mostly of sulfur and nickel.
 - The mantle is composed of olivine and orthopyroxene. There may also be iron and titanium.
 - The crust is composed of oxygen, silicon, magnesium, and aluminum.



Concept Check

- What is special about the moon's orbit?
- What is the temperature like on the moon? What causes this?
- What are maria and terrae?