

## Brownie Space Science Adventurer Badge

### The Moon

This sheet provides basic facts about the Moon to help you and your girls embark on the Space Science Adventurer badge.

#### Words to Know-

Here is some vocabulary to get you started . . .

**Orbit:** An orbit is the path one object takes around another.

**Phases of the Moon:** The perceived change in shape of the Moon is due to how much of its sunlit side is facing the Earth.

**Lunar:** The word “lunar” refers to anything relating to the Moon.

**Solar Eclipse:** We see a solar eclipse when the Moon covers the Sun.

**Lunar Eclipse:** We see a lunar eclipse when the Moon crosses through the shadow of the Earth. Everyone on the nighttime side of the Earth can see a lunar eclipse.

#### KEY FACTS-

- The Moon is a globe just like the Earth, but smaller (about one quarter of the size of Earth).
- The Moon orbits the Earth.
- The Moon reflects sunlight. It is lit by the Sun the same way Earth is.
- As the Moon orbits, the Sun lights only a specific part, giving the impression that the Moon is changing shape. These “changing shapes” are the “Phases of the Moon.”
- The Moon completes a set of phases in about 29 and one-half days (almost a month).

#### FUN FACTS TO SHARE WITH GIRLS-

- The Moon is visible in the sky for roughly 12 hours a day. Because of this, we are able to see the Moon during the daytime and the nighttime.
- The Moon rises and sets in different places along the horizon every day.
- The Moon sets at different times depending on where it is in its orbit.
- The Moon is made of materials similar to those of the Earth.

#### DIGGING DEEPER-

If you'd like to know more about the Moon, check out these helpful links—

**NASA's Moon website:** [www.nasa.gov/moon](http://www.nasa.gov/moon)

**Search for your city's moonrise and moonset here:** <http://www.timeanddate.com/moon/usa>

**Solar Eclipses for Beginners:**

<http://www.mreclipse.com/Special/SEprimer.html>

**NASA's Eclipse website:** <http://eclipse2017.nasa.gov>