

Phases of the Moon

A Thirty Day Drawing Challenge

Harvest Moon, traveling to the moon, Man in the Moon, to the moon and back, catching the moon, the moon is admired by many people. Learn more about the moon by observing and drawing its phases.

Activity Challenge

Observe the moon every day for 30 days and draw its appearance.

Preparation

1. Review materials list and gather needed items.
2. Set a time each night to observe the moon with adult supervision. Make sure the moon is visible on the chosen nights.

To Do

1. Write down the date and time for each moon observation.
2. On nights with clear skies, go outside and find the moon.
3. Draw the moon as you see it.
4. Repeat steps 1-3 for 30 days.

Observations

- Note the light and dark areas of the moon. Comment on what you think are the distinct parts of the moon.
- Identify the type of moon you observed that night. What are the names given to the different phases of the moon?

Extensions

- Use drawing or modeling software to create a display or presentation of your observations.
- View this moon phase simulation (<https://bit.ly/360NZCO>)

The Science behind the Activity

Hold a ball at arm's length in front of you with a bright light (the "Sun") shining from a spot behind and above you. The ball (our "moon") would appear as a bright circle (a **Full Moon**), you (the "Earth") would have your back in "daytime" and your front in "nighttime" (see illustration on next page).

When you turn to the left a quarter of a full turn you would see the "moon's" left half lit up and right half in darkness (a **Quarter Moon**). Turning further to the left you would see the bright left half of the moon become smaller (**waning**) and the dark area become larger. The bright curved shape that you see getting narrower forms the shape of a crescent (a **Crescent Moon**). As you continue turning, the moon's side facing you becomes completely unlit, which is called a **New Moon**. Turning further to the left a bright growing (**waxing**) crescent shape appears on the right side of the moon. When you have turned a quarter of the way around from facing the Sun, we would see the moon's right half lit up and left half in darkness (a **First Quarter Moon**). The full rotation of the real moon about the Earth takes a little less than 30 days (a **calendar month**).

Materials Needed

- STEAM Journal or notebook
- Pencil or pen

Grade Range

K-2
3-5
6-8

Topics/Skills

Science: Phases of the moon, drawing

Learning Standards

NGSS: [Earth and the Solar System](#)

Duration

10-15 minutes for 30 days

Prep Time

5 minutes

