

Pre-assessment prior to discussing moon phases

As an RFA (Review and Focus Activity) have the students draw the type of moon that they would expect to see when the moon is at different positions around the sun. Collect and use for assessment follow up with the activity below within the same class period

Instructor intro: Using the projector and someone being the moon, you are the Earth,

Prior to activity discuss:

- As the sun is shining on the moon and the earth note that only half of each body is illuminated.
- Briefly review which side is experiencing day and night and the position of the moon relative to the Earth, why we always see the same face of the moon (moon takes 29 days to turn once completely but that happens to be how many days it takes to orbit the sun) compare to the earth rotates in 1 day, but revolves around the sun in 365 days
- Have the students start with the full moon positions.

Activity:

Using the following items create a simulation of the lunar cycle.

- Flashlight, large Styrofoam ball, small Styrofoam ball on a stick

One student is the sun, another is the moon and the third is the earth. Place the sun, moon and earth in proper alignment for a full moon. Move to where you have a half-moon. In the position of the earth look up at the moon and watch how the amount of light you are able to see changes. Have each student take turns being at Earth's position as the moon moves around them.

Post-assessment after activity and class discussion:

Using the same worksheet for the pre-assessment have the students draw the type of moon that they would expect to see when the moon is at different positions around the sun.