

30-Minute Computer Lab Lessons

Moon Phases

Purpose:

The students will learn the phases of the moon by viewing a Power Point presentation. Following the presentation they will draw and label the phases of the moon.

Curriculum Connection:

Science

Standard 1

Students will understand that the appearance of the moon changes in a predictable cycle as it orbits Earth and as Earth rotates on its axis.

Objective 1

Explain patterns of changes in the appearance of the moon as it orbits Earth.

1. Describe changes in the appearance of the moon during a month.
2. Identify the pattern of change in the moon's appearance.
3. Use observable evidence to explain the movement of the moon around Earth in relationship to Earth turning on its axis and the position of the moon changing in the sky.
4. Design an investigation, construct a chart, and collect data depicting the phases of the moon.

Objective 2

Demonstrate how the relative positions of Earth, the moon, and the sun create the appearance of the moon's phases.

1. Identify the difference between the motion of an object rotating on its axis and an object revolving in orbit.
2. Compare how objects in the sky (the moon, planets, stars) change in relative position over the course of the day or night.
3. Model the movement and relative positions of Earth, the moon, and the sun.

Educational Technology

Standard 5

Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.

Materials:

Computer for each student

Moon Phases PowerPoint

KidPix (located on the dock on all computers in Jordan School District computer labs)

Prerequisite Knowledge:

This lesson serves as an introduction to moon phases. No prior knowledge is required.

Procedure:

Play the Moon Phases PowerPoint presentation on the large screen for the students. View the presentation in presenter mode so you can use the teacher notes in the presentation to explain the new vocabulary and concepts to the students.

After the presentation, have the students open KidPix on their computers. (This program is located on the dock on all computers in Jordan School District computer labs.) Hint: Ask the students to turn off their computers' sound before opening the program. Once in the program, type any key to continue on from the title screen. Depending on the version of KidPix, it will either take you directly to the program, or you may need to type in a student name and click "Go".

Give the students a brief tour of the program. Have them explore the variety of tools they can use to create their pictures: pencils, stickers, animations, paint brushes, etc. While they explore, ask them to think about tools would be best to create the moon phases they have been assigned. Creativity is encouraged.

Once the students have had a brief tour, have them get to work creating a picture of the moon phases. They should draw each phase in the correct order. After they complete their illustration, they must use the typing tool to label their picture with the names of each moon phase.

When students have finished their pictures, have them save their work (I have my students save to their own folder on the school folder) and print.

Technology Tips:

If students make a mistake, they can click on the little shaking head to undo their last action. Warn the students, however, that it will only undo the very last thing they did. When using the eraser, students should be aware that the big eraser will erase their entire picture. If they only want to erase a portion of the picture, they should use the pencil with the eraser top. The dynamite stick will also erase their entire picture.

Adaptations:

You may choose to have some students work with a partner.

Extensions:

Have the students draw and label the angle created by the sun, moon, and earth for each phase. (See the movie in the PowerPoint for more information about the angles.)