

Enduring Understandings for Phases of the Moon Unit

Enduring Understandings <i>What do we want students to know?</i>	Objective	Activity	Assessment
The moon orbits the Earth every 29.5 days. Since it rotates and revolves at the same rate only one side is visible from Earth.	Only one side of the Moon is visible from Earth.	Students will watch a Brain Pop Jr. video and participate in a Smartboard activity. This activity shows the Sun, the Earth, and the Moon, and students will illustrate the Moon in each phase.	Students will copy the draw and label the Moon in a lab sheet, and answer questions for an “exit ticket”
The observable shape of the Moon changes from day to day in a cycle that lasts 29.5 days	Describe and <i>observe</i> the <i>sequence</i> of phases: new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, last quarter, waning crescent.	<ol style="list-style-type: none"> 1. Students will make a moon phases wheel with labels and illustrations 2. Students will fill out a moon chart flipbook every night during this unit 	Student flipbooks will have accurate drawings that are properly labeled and sequenced.
The Moon is not a star, and cannot produce light, so it appears to have different shapes on different days	Students will demonstrate the Moon’s phases with hands-on activities	<ol style="list-style-type: none"> 1. Students will participate in several centers: they will use a foam board that simulates the Moon phases 2. Students listen to Gail Gibbons’s <i>The Moon Book</i> 3. Students will make simple telescopes and use various objects to form craters 	Students will complete final assessment sheets and will draw and label each phase of the Moon
The moon has no atmosphere so objects may more easily crash onto its surface forming craters. These craters may be seen through telescopes	Students will demonstrate how craters are formed	<ol style="list-style-type: none"> 1. Students will listen to Brian Floca’s <i>Moonshot</i> and discuss what a moon lander will need 2. Students will construct a moon lander based on a PBS Kids design 	Their moon lander should be able to bounce and keep passengers safe

Assessment Checklist for Phases of the Moon Unit

	Investigation			Content Knowledge				Notes	
Student Name	Best safety practices	Shares materials and ideas with lab partners	Uses tools effectively and correctly	Knows the Moon orbits Earth every 29.5 days	Knows that the observable shape of the Moon changes	Explains ideas using vocabulary from this unit: waxing, waning, can name Moon phases	Understands that the phases are part of a predictable pattern that repeats	Uses journal to record accurate notes	Science journal is organized and all work has been added to journal