

Materials at a Glance

Experiment 1	Experiment 3	Experiment 4	Experiment 5	Experiment 6
<p>pencil flashlight compass</p> <p>A clear night sky away from bright lights is needed.</p>	<p>basketball ping-pong ball flashlight empty toilet paper tube tape scissors a dark room student-selected objects</p>	<p>modeling clay in the following colors gray white brown red butter knife or sculptor's knife ruler</p> <p>Materials other than clay can be used, such as Styrofoam balls or plaster of Paris and paint.</p>	<p>modeling clay in the following colors: gray white brown red blue green orange butter knife or sculptor's knife colored pencils</p>	<p>computer with internet access printer and paper flashlight</p> <p>Optional binoculars or telescope star map app and mobile device</p>
Experiment 2				
<p>two sticks (used for marking locations) two rulers tape string, several meters long (several yards) protractor</p>				

Experiment 7	Experiment 8	Experiment 9	Experiment 11	Experiment 12	
<p>8 objects of different sizes to represent the planets ruler (in centimeters) marking pen large flat surface for drawing — 1 x 1 meter (3 x 3 feet), such as a large piece of cardboard or several sheets of construction paper large open space at least 3 meters (10 feet) square push pin piece of string one meter (3 feet) long additional objects of students' choice to represent asteroids, etc.</p>	<p>imagination pencil colored pencils</p> <p>Optional several sheets of blank paper</p>	<p>computer internet connection</p>	<p>computer or tablet internet connection</p>	<p>computer internet connection</p>	
		Experiment 10			
		<p>computer internet connection</p>			

Materials

Quantities Needed for All Experiments

Equipment	Materials	Other
<p>basketball compass computer with internet access flashlight knife, butter or sculptor's ping-pong ball printer protractor ruler (in centimeters) rulers, 2 scissors</p> <p>Optional</p> <p>binoculars or telescope star map app and mobile device tablet</p>	<p>modeling clay in the following colors gray white brown red blue green orange</p> <p>objects of different sizes to represent the planets, 8</p> <p>objects, student-selected</p> <p>paper for printer</p> <p>pen, marking</p> <p>pencil</p> <p>pencils, colored</p> <p>push pin</p> <p>sticks, 2 (used for marking locations)</p> <p>string, one meter (3 feet) long</p> <p>string, several meters long (several yards)</p> <p>surface for drawing — 1 x 1 meter (3 x 3 feet), such as a large piece of cardboard or several sheets of construction paper</p> <p>tape</p> <p>toilet paper tube, empty</p> <p>Optional</p> <p>materials other than clay for models, such as Styrofoam balls or plaster of Paris and paint</p> <p>objects of students' choice to represent asteroids, etc.</p>	<p>clear night sky away from bright lights</p> <p>dark room</p> <p>imagination</p> <p>open space at least 3 meters (10 feet) square</p>

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