

FOCUS ON

Grades 5-8

MIDDLE SCHOOL



Teacher's Manual

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Materials at a Glance

Experiment 1	Experiment 2	Experiment 3	Experiment 4	Experiment 5
pencil flashlight	2 sticks (used for marking) 2 rulers string protractor pencil square grid or graph paper	basketball ping-pong ball flashlight empty toilet paper tube tape scissors a dark room	modeling clay: gray white brown red butter knife or sculptor's knife ruler	modeling clay: gray white brown red blue green orange butter knife or sculptor's knife ruler

Experiment 6	Experiment 7	Experiment 8	Experiment 9	Experiment 10
the 8 planet models from Experiment 5 ruler (in centimeters) pencil large 1x1 meter (3x3 ft.) flat surface for drawing (can use cardboard or construction paper) large open space at least 10' long push pin piece of string a meter long	pen paper your imagination	pen paper computer and internet service Google Earth	pen paper computer and internet service Google Earth	pen paper computer and internet service Google Earth

Materials at a Glance

By type

Equipment	Materials	Locations
<p>computer and internet service and Google Earth flashlight knife, butter or sculptor's protractor ruler in centimeters rulers (2) scissors</p>	<p><i>Focus On Middle School Astronomy Laboratory Workbook</i> basketball (1) modeling clay: gray white brown red blue green orange paper, blank (several sheets) paper, square grid or graph (several sheets) pen pencil ping-pong ball (1) planet models (8) from Experiment 5 push pin (1) sticks—used for marking (2) string (several meters) surface, flat—for drawing, 1x1 meter (3x3 ft.), can use cardboard or construction paper tape toilet paper tube, empty (1)</p>	<p>room, dark space, large open, at least 10' long</p>