

**Science Academies for Grades 5-8, Part 2 Materials**  
Grade 5 Teachers

<b>Lesson</b>	<b>Materials</b>	<b>Quantity Needed for 30 Participants</b>	<b>Quantity Needed for Group of 3</b>
<b>Engage</b>			
<b>Explore</b>	marbles (16mm)	90-130	9-13
	marbles (25mm)	10-30	1-3
	meter stick	10	1
	sidewalk chalk (optional)	10 sticks	1 stick
	sorting circle	10	1
	string (optional)	20 meter length	2 meter length
	tape (only necessary if using string)	10 rolls	1 roll
	clock or timing device	1	for teacher only
<b>Explain</b>			

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Lesson	Materials	Quantity Needed for 30 Participants	Quantity Needed...
<b>Elaborate</b>	aluminum foil	1 box	Materials will be bagged according to the cards on RM 7.
	bar magnet	2	
	brick	1	
	bubble wrap	1 meter length	
	chalk	5-10 sticks	
	clear tape gift wrap dispenser	2	
	coffee filter	2	
	foam ball (6-8 cm in diameter)	1	
	foam board	3-5 sheets	
	freezer paper	1 box	
	goggles	6-10	
	horseshoe magnet	2	
	magnetic wand	2	
	masking tape	5-10 rolls	
	meter sticks	10	
	paper clips	30	
	paper cup, 3 oz.	3	
	plastic toy soldier	2	
ring magnet	2		

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Grade 5 Teachers

Lesson	Materials	Quantity Needed for 30 Participants	Quantity Needed...
<b>Elaborate</b> (continued)	rubber bands (medium-size)	6-8	Materials will be bagged according to the cards on RM 7.
	sandpaper (coarse)	6-8 sheets	
	spray bottle	3	
	spring scale (5 N and 10 N)	3 each	
	staples	75-100	
	straws	5	
	string	10 meter length	
	textbook (substitute manuals/guides)	3	
	timing device	3	
	towel	2	
	toy car	2	
	wax paper	1 box	
	wooden block (heavy)	1	
	alcohol wipes (to clean goggles)	1 box	
	access to technology		
		cardstock	
	sandwich-size resealable plastic bags		2 for teacher
<b>Evaluate</b>			

**Science Academies for Grades 5-8, Part 2 Materials**

Grade 6 Teachers

<b>Lesson</b>	<b>Materials</b>	<b>Quantity Needed for 30 Participants</b>	<b>Quantity Needed for Group of 3</b>
<b>Engage</b>			
<b>Explore</b>	meter sticks	20	2
	sticky notes, flags, or dot stickers	10 pads	1 pad
	timing device	10	1
	windup toy that moves forward	10	1
	calculator (optional)	30	1

**Science Academies for Grades 5-8, Part 2 Materials**

Grade 6 Teachers

Lesson	Materials	Quantity Needed for 30 Participants	Quantity Needed...
<b>Explain</b>	computer cord for motion sensor	1	for class
	computer or laptop	1	
	Go!Motion sensor	6	1 per group of 5
	calculator cord for motion sensor	6	
	large sheet of foam board	6	
	meter stick	6	
	graphing calculator (TI-83 Plus or TI-84 Plus)	6	
	blue dry erase or poster marker	1	for teacher
	orange dry erase or poster marker	1	
	sticky dots	1 package	
	graphing chart paper	1 pad	
	colored pencils (at least two different colors)	60	2 per student
<b>Elaborate</b>	graph paper	30 sheets	1 sheet
	calculator (optional)	30	1
<b>Evaluate</b>			

**Science Academies for Grades 5-8, Part 2 Materials**

Grade 7 Teachers

<b>Lesson</b>	<b>Materials</b>	<b>Quantity Needed for 30 Participants</b>	<b>Quantity Needed for Group of 3</b>
<b>Engage</b>	half-sheet of blank paper	30	1 per student
<b>Explore</b>	meter stick or metric measuring tape	10	1
	push-pull spring scale (5N or 10N)	10	1
	sand or gravel	1 bag	
	small bottle with lid, such as a small soda bottle	10	1
	small screw hook/screw eye	10 screws	1 screw
<b>Explain</b>	access to a glossary or dictionary is optional; digital access can be used in training		
<b>Elaborate</b>	metric ruler, meter stick or metric measuring tape (from Explore)	10	1
	load object (from Explore)	10	1
	push-pull spring scale (from Explore)	10	1
	two different lengths of cardboard or foam board to use as inclined planes For example: <ul style="list-style-type: none"> <li>• one 15 cm x 40 cm length</li> <li>• one 15 cm x 55 cm length</li> </ul> The lengths may be adjusted based on the height of the box or crate used in the activity.	10 of each size	1 pair
	empty cardboard box or plastic crate	10	1
<b>Evaluate</b>			

**Science Academies for Grades 5-8, Part 2 Materials**

Grade 8, Lesson 1 Teachers

<b>Lesson</b>	<b>Materials</b>	<b>Quantity Needed for 30 Participants</b>	<b>Quantity Needed for Group of 3</b>
<b>Engage</b>	String or yarn	80 foot length	8 foot length divided into 3' and 5' sections
<b>Explore</b>	safety glasses	30	3
	small sphere (golf ball or tennis ball)	10	1
	variety of materials such as additional balls, blocks, rulers, meter sticks, books, boxes, etc.		
	alcohol wipes (to clean glasses)	1 box	
<b>Explain</b>	sticky notes	10-20 pads	1-2 pads
<b>Elaborate</b>	AA batteries for each cart (4 per cart)	48	8
	fan carts	12	2
	large rubber bands to connect fan carts (#117B file bands)	6-12	1-2
<b>Evaluate</b>			

**Science Academies for Grades 5-8, Part 2 Materials**

Grade 8, Lesson 2 Teachers

Lesson	Materials	Quantity Needed for 30 Participants	Quantity Needed for Group of 5
<b>Engage</b>	chart paper (optional)	1 pad	1 sheet
	masking tape or chalk (optional)	6	1
<b>Explore</b>	safety glasses	30	5
	alcohol wipes (to clean glasses)		
	Hall's carriage cart	6	1
	push-pull spring scale (5N or 10N)	6	1
	meter sticks	12	2
	objects to add mass (marbles, pennies, known mass set, etc.)	6 sets	1 set
	foam board for a ramp (from Grade 7 lesson)	6	1
	1" blocks (or a book) for ramp	12	2
	small container of sand or gravel (Can use load object from grade 7 lesson)	6	1
	masking tape or painters tape (optional)	6 rolls	1 roll
	hot glue or other adhesive to glue plastic (optional)	1 bottle or package	for teacher only
	small, plastic containers or film canisters (optional)	6	for teacher only



**Science Academies for Grades 5-8, Part 2 Materials**

Grade 8, Lesson 2 Teachers

<b>Lesson</b>	<b>Materials</b>	<b>Quantity Needed for 30 Participants</b>	<b>Quantity Needed for Group of 5</b>
<b>Explain</b>	cardstock	30 sheets	5 sheets
	brass paper fasteners	2 boxes of 100	15
	chart markers	6 packs	1 pack
	chart paper	1 pad	1 sheet
	highlighters (optional)	30	5
	sticky notes	6 pads	1 pad
	scissors	30	1
	hole punch	6	1
<b>Elaborate</b>			
<b>Evaluate</b>			