Grade 5 Teacher-Supplied Materials: Fast Track

Module 1: Matter Mysteries Hotline				
Material	How Material Is Used	Quantity	Driving Question	Fast Track Lesson
Poster or chart paper	Used for the Anchor Phenomenon chart	1 sheet	1	1
	Used to create a Properties of Materials chart	1 sheet	1	1
	Used to create a Criteria chart	1 sheet	4	1
	Used to create a Matter Criteria chart	1 sheet	5	1
Marker	Used to write on the Anchor Phenomenon chart	1	1	1
Brown paper bags	Used in Observing Properties lab and Investigating Gas lab	1 pack of 16	1	1
		1 pack of 16	5	3
Trays	Used to hold materials for hands-on investigations	1 per team	1	1, 2, 3
			2	1, 2, 4

			3	2, 3, 4, 5
			4	2
			5	2
Paper towels	Used to clean up materials during investigations	1 pack	2	1
		1 pack	4	1
Scissors	Used to build 3-D models	1 pair per team	6	2
Rulers	Used to measure the materials in the evidence bags	4 for the teacher and 1 per team	1	1, 2, 3
Newspaper	Used to minimize mess	2	3	1, 3
Desk lamp	Used to test thermal conductivity	3	1	2, 3
Incandescent bulbs, 75 W	Used in desk lamps	3	1	2, 3
Frying pan **Note:** Alternatively, use a hot plate.	Used to heat the mystery materials	1	2	1
Hot plate	Used in Investigating Mystery Substances lab	1	2	1, 2
Salt	Used as a mystery substance	At least 120 g	2	1
		At least 60 g	2	2
	Used to make clay	30 mL per team	4	1

Paper clip	Used to test for electrical conductivity	1	1	2
Wide rubber band	Used to construct an electrical circuit	1	1	2
Eraser	Used to see if it is a good conductor	1	1	2
Clear tape	Used to fix balloons to a meter stick	1 roll	5	3
	Used to build 3-D models	1 roll per team	6	2
Sugar	Used as a mystery substance	At least 120 g	2	1
		At least 60 g	2	2
	Used to make up the mystery mixture	1 tsp	2	3
		1 tsp per team	2	4
8–12 oz plastic bottles with lids	Used to make lava lamps	1 per student	3	1
Safety goggles (student size)	Used in Chemical Reactions lab	3 packs of 10 = 30 pairs	3	2
Safety goggles (adult size)	Used in Chemical Reactions lab	1 pair	3	2
Set of measuring spoons	Used in Chemical Reactions and Modeling Salination labs	8 sets	3	2, 3
		8 sets	4	1
Baking soda	Used as a mystery substance	At least 120 g	2	1
		At least 60 g	2	2
	Used to combine with the mystery mixture	1 tsp	2	3

	Used to combine with the mystery mixture	1 tsp per team	2	4
	Used to mix with citric acid	1 tsp per team	3	2
	Used to mix (when combined with citric acid) with water	1 tsp per team	3	5
Water	Used to investigate how substances dissolve in water	At least 250 mL	2	1
	Used to combine with the mystery mixture	7 oz cup	2	3
	Used to combine with the mystery mixture	1 tsp per team	2	4
	Used to observe what happens when added to citric acid and baking soda	8 tbsp per team	3	3
	Used to combine with cornstarch and iodine	30 mL per team	3	4
	Used to make clay	1 pitcher of warm water, 1 pitcher of cold water	4	2
	Used to pour over a pinwheel to observe the force of a liquid	7 oz cup per pair	5	2
Vinegar	Used to investigate how substances dissolve in vinegar	At least 250 mL	2	1
	Used to combine with the mystery mixture	7 oz cup	2	3

	Used to combine with the mystery mixture in the investigation	At least 60 mL	2	4
Food coloring	Used to make lava lamps	1 bottle	3	1
Pencil (with a metal band around the top)	Used to test for conductivity	1	1	2
Flour	Used to make clay	30 mL per team	4	1
Microwave	Used to warm water **Note:** Alternatively, a kettle can be used.		4	1
Microwavable mug	Used to hold warm water		4	1
Craft sticks	Used for Investigating Mystery Substances and in Designing Clay lab	1 pack of 250	2	1
		1 pack of 250	4	1
Plastic containers	Used to hold water and vinegar	2	2	1
7 oz paper cups	Used in Investigating Mystery Substances and Chemical Reactions lab	3 packs of 15 = 45	2	1
		3 packs of 15 = 45	4	1
3 oz paper cups	Used in Investigating Mystery Substances and Chemical Reactions lab	15 packs of 30 = 450 cups	2	1, 2
		15 packs of 30 = 450 cups	3	1, 2
		15 packs of 30 = 450 cups	4	1

		15 packs of 30 = 450 cups	6	1
Cornstarch	Used as a mystery substance	At least 120 g	2	1
		At least 60 g	2	2
	Used to add to water and iodine	At least 250 g	3	4
	Used to make clay	30 mL per team	4	1
Plastic teaspoons	Used in Investigating Mystery Substances and Chemical Reactions lab	1 pack of 100	2	1, 2
		1 pack of 100	3	1, 4
Pitcher **Note:** Alternatively, provide access to a sink to collect water.	Used to fill with water	1	3	1
			6	1
Vegetable oil	Used to make lava lamps	1 bottle	3	1
	Used to make clay	30 mL per team	4	1
Latex-free gloves	Used in Chemical Reactions to follow safety recommendations	1 box of 100	3	2, 4
Roll of masking tape	Used for Labeling Chemical Reactions and in Designing Clay lab	1	3	2
		1	4	1
3 oz paper cups	Used to hold water	2 per team	3	3
White glue	Used to make students' particle models	1 per team	6	2
24 oz clear plastic cups	Used in Investigating States of Matter lab	2 packs of 10 =	5	2

		20 cups		
Balloons	Used in Investigating Gas lab	2 packs of 24 = 48 balloons	5	3
Index cards	Used in Designing Clay lab	1 pack of 100	4	1
Roll of parchment paper	Used in Designing Clay lab	1	4	1
Cream of tartar	Used to make clay	30 mL per team	4	1
Refrigerator	Used to refrigerate clay	1	4	1
Cookie stamps	Used to make an impression in clay	1 per team	4	1
Plastic bottles **Note:** Alternatively, use rolling pins.	Used as a rolling pin to roll clay	1 per team	4	1
Oven or toaster oven	Used to bake the clay to make it dry	1	4	1
Straight pin	Used to pop a balloon	1	5	3
Meter stick	Used in investigating gas and Earth's Gravity lab	1	5	3
Pack of colored dot stickers	Used to model states of matter	3 packs	6	2
Pom-poms (red)	Used to model states of matter	1 pack of 100	6	2
Pom-poms (blue)	Used to model states of matter	1 pack of 100	6	2
Pom-poms (white)	Used to model states of matter	1 pack of 100	6	2
Construction paper	Used to model states of matter	1 pack of 50	6	2

Pom-poms (yellow)	Used to model states of matter	1 pack of 100	6	2
Cotton balls	Used to model states of matter	1 pack of 300	6	2
Pack of ¾-inch colored dot stickers	Used to model states of matter	1 pack	6	2
Foam sponges	Used to model states of matter	4	6	2
Pom-poms (black)	Used to model states of matter	1 pack of 100	6	2

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Module 2: Yellowstone: Uncovered				
Material	**How Material Is Used**	**Quantity**	**Driving Question**	**Fast Track Lesson**
Poster or chart paper	Used for the Anchor Phenomenon chart	1 sheet	1	1
	Used to make a T-chart	1 sheet	2	1
Non-latex gloves	Used in Plant Needs investigation to follow safety recommendations	1 box of 100	1	1
Marker	Used to write on the Anchor Phenomenon chart	1	1	1
6 oz paper cups	Used in Investigating Plant Needs lab and Food Chain activity	2 packs of 25 = 50 cups	1	1

		2 packs of 25 = 50 cups	2	2, 4
Trays	Used to hold the materials for hands-on investigations	1 per team	1	1
			2	4
Roll of plastic wrap	Used in Plant Needs investigation	1	1	1
Roll of masking tape	Used in Plant Needs investigation	1	1	1
Paper towels	Used to grow plants without soil	1 pack	1	1
Scissors	Used to cut materials for the investigation into plant needs	1 pair per student	1	1
	Used to cut materials for the ecosystem models		2	4
	Used to cut out images	1 pair per pair	5	3
Rulers	Used in the investigation into plant needs	1 per team	1	1
White glue	Used to glue down images	1 bottle per pair	5	3
Set of Food Web cards	Used for food web activity (must be printed from the link provided)	1 set	2	3
Hole punch	Used to punch holes in Food Web cards	1	2	3, 4
Spoon	Used to create ecosystem models	1 per team	2	4
Roll of duct tape	Used in Modeling an Ecosystem lab	1	2	4
Utility knife	Used in Modeling an Ecosystem lab	1	2	4

Plastic spray bottles (bottle)	Used in Modeling an Ecosystem and Modeling a Rain Shadow labs	8	2	4
Plastic spray bottles (sprayer)	Used in Modeling an Ecosystem and Modeling a Rain Shadow labs	8	2	4
Tape	Used to secure plastic wrap around plants	1 roll	1	1
Sticky notes	Used to bookmark important pages in the Twig Books	5 packs	3	4
		5 packs	5	4
2 L plastic bottles	Used to make the ecosystem model	2 per team	2	7
Buckets or trash bags **Note:** Need to be strong enough to hold soil	Used to fill with soil	2	1	1
			2	4
Double-sided tape	Used to stick index cards to a chart	2 rolls	2	3
	Used to stick an image of the Sun to a chart		4	2
	Used to stick images of decomposers to a chart		5	3
Small stones or pebbles **Note:** A few pebbles will be placed on top of the soil.	Used to create ecosystem models	A handful per team	2	7
Computer or tablet	Used to display the interactive	1 per pair	4	3

Newspaper	Used to protect work surfaces	2	1	1
		2	2	4
Plant cuttings, seedlings, or seeds	Used to create ecosystem models	1 per team	2	4
Leaf litter	Used to create ecosystem models	Enough per team to cover the soil in the ecosystem model	2	4

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Module 3: H_2O Response Team				
Material	**How Material Is Used**	**Quantity**	**Driving Question**	**Lesson**
Poster or chart paper	Used for the Anchor Phenomenon chart	1 sheet	1	1
	Used to make posters	1 sheet per team	4	3
Marker	Used to write on the Anchor Phenomenon chart	1	1	1
4 oz plastic cups	Used to label plastic cups in Fresh Water Investigation	4	1	2

Rolls of masking tape	Used to label plastic cups in Fresh Water Investigation and Salination lab	2	1	2
		2	4	2
Tray	Used to organize materials for teacher demonstration	1	1	2
	Used to organize materials for hands-on investigations	1 per team	4	2
Small strainers	Used in Salination lab	8	4	2
Stirrers	Used in Salination lab	1 pack of 250	4	2
Salt	Used to create ocean salinity models	At least 50 g	4	3
Paper clips	Used to keep together the cut-out cards	1 per team	3	2, 5
Set of measuring spoons	Used in Chemical Reactions and Modeling Salination labs	8 sets	4	2
Rock salt	Used to model how the sea gets salty	50 g	4	2
Jar with lid **Note:** This needs to be heat resistant.	Used in a demonstration to show how/why it rains	1	3	1
Newspaper	Used to represent the Mojave Desert basin	1	3	3
Plastic spray bottles (bottle)	Used in Modeling an Ecosystem and Modeling a Rain Shadow labs	8	3	3

Plastic spray bottles (sprayer)	Used in Modeling an Ecosystem and Modeling a Rain Shadow labs	8	3	3
Poster-making materials	Used for student presentations	A variety per pair	5	4
Audio/video recorder (e.g., phone, tablet)	Used for student presentations	1 per pair	5	4
Computer or tablet	Used to display the interactive	1 per pair	5	2
Hairspray	Used for teacher demonstration to show rain	1 bottle	3	1
Hot water	Used for teacher demonstration to show rain	350 to 500 mL	3	1
Ice cubes	Used for teacher demonstration to show rain	4	3	1
Rags or mops	Used to mop up water	1	3	5
Water	Used for teacher demonstration to show Earth's water and how much is available from different sources	1,000 mL	1	2
	Used to demonstrate rain shadows	Enough to fill up the spray bottle	3	5
	Used in the ocean salinity investigation	200 mL per team	4	2
3 oz paper cups	Used in Salination lab and Water Pollution benchmark assessment	2 packs of 30 = 60 cups	4	2
		2 packs of 30 = 60 cups	BAFT1	

Pipe cleaners	Used in Water Pollution benchmark assessment	1 pack of 25	BAFT1
Charcoal bags	Used in Water Pollution benchmark assessment	2 bags (500 g each)	BAFT1
Cotton balls	Used in Water Pollution benchmark assessment	1 pack of 300	BAFT1
Toothpicks	Used in Water Pollution benchmark assessment	1 box of 250	BAFT1
Gauze pads	Used in Water Pollution benchmark assessment	1 pack of 10	BAFT1

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Module 4: Galactic Guidebook				
Material	How Material Is Used	Quantity	Driving Question	Fast Track Lesson
Poster or chart paper	Used for the Anchor Phenomenon chart	1 sheet	1	1
Marker	Used to write on the Anchor Phenomenon chart	1	1	1
Pack of chalk	Used in Mapping the Stars lab and Star Brightness demo	1 pack of 12	2	1, 2

Sticky note pad	Used in student presentation	1	2	3
Colored pencils **Note:** Alternatively, students can share packs, but they will need at least three different colors each.	Used to draw trajectories of constellations	1 set per pair	3	1
	Used to draw an annotated map of the Orion constellation		5	2
Paper	Used to draw an annotated map of the Orion constellation	1 sheet per student	5	2
Sticky dots **Note:** To put on the inflated globe	Used to place a dot on the inflated globe to mark the school's location	1	3	2
Pencil	Used with a compass to demonstrate Earth's axis	1	3	2
Paper plate	Used in Sun and Earth model	1	3	2
Tennis ball	Used in Sun and Earth model	1	3	2
Meter stick	Used in investigating gas and Earth's Gravity lab	1	4	1
Roll of masking tape	Used to demonstrate Earth's gravity and in Earth orbit model	1	1	2
		1	4	1
		1	5	2

Tape measure	Used in Mapping the Stars lab	1	1	2
		1	2	1, 2
Protractor	Used in Earth's Gravity demo	1	4	1
Level	Used in Earth's Gravity demo	1	4	1
Computer or tablet	Used to display the interactive		1	3
			3	1
			5	4, 5
Texts for student research **Note:** Astronomy websites can also be used.	Used to conduct research to create a Galactic Guidebook	A range of research texts from the school library or other sources	5	6, 7