



RIDES & The Next Generation Science Standards

Quick Guide

Kindergarten	Weather & Climate	2.3 Eat A Rock 2.9 Water Erosion and Pollution
	Effects of Sunlight on Earth's Surface	1.5 Solar Math: Solar Cars 3.7 Studying & Making Crystals
	Identify Needs of Plants & Animals	2.5 Butterfly Camouflage
	Plants & Animals can Change Their Environment	2.5 Butterfly Camouflage
	Human Impact on Environment	1.21 Fuel Consumption & Newton's 2nd Law of Motion 2.1 All Aboard 2.8 Do Oil & Water Mix? 2.9 Water Erosion and Pollution 4.7 Designing A Spaghetti Bridge 4.8 Bridges 4.9 Civil Engineering
	Force & Motion	1.5 Potential & Kinetic Energy 1.19 Pendulum Problem 1.20 Newton's Marbles 1.21 Fuel Consumption & Newton's 2nd Law of Motion 1.23 Balloon Rockets 1.24 Force & Rubber Band Airplanes 1.25 Shoot for the Sky 1.26 Book Drop 1.28 Crash Test 2.2 Slippery When Wet 2.4 Soap Boats 2.21 Energy & Propulsion 4.2 Clay Car Races 4.3 Toy Cars 4.5 Designing Paper Airplanes 4.6 Design A Boat Challenge

Grade 1	Waves: Light & Sound	1.10 Seismic Science 1.16 Traveling Sounds
	Patterns in Sun, Moon and Stars	3.7 Studying & Making Crystals (patterns)
	Seasons: Relate Daylight to Time of Year	
	Variation & Inheritance of Traits	2.5 Butterfly Camouflage
	How Parents Help Offspring Survive	2.5 Butterfly Camouflage
	How Plants & Animals Meet Needs	
Grade 2	Describe & Classify Properties of Materials	2.3 Eat A Rock 2.6 Water Cohesiveness 2.7 Color Changing Milk 2.8 Do Oil & Water Mix? 2.12 Curious Cubes 3.5 Classification Using Rocks
	Heating or Cooling substances may be Reversible	2.3 Eat A Rock 3.5 Classification Using Rocks
	Identify Where Water is Found on Earth	
	Modeling Landforms	3.5 Classification Using Rocks
	Processes that Shape the Earth	2.9 Water Erosion and Pollution 3.5 Classification Using Rocks
	Diversity of Life in Different Habitats	
	Plant Growth Investigations	
	Modeling Seed Dispersal & Pollination	
Grade 3	Forces & Motion	1.5 Potential & Kinetic Energy 1.19 Pendulum Problem 1.20 Newton's Marbles 1.21 Fuel Consumption & Newton's 2nd Law of Motion 1.23 Balloon Rockets 1.24 Force & Rubber Band Airplanes 1.25 Shoot for the Sky 1.26 Book Drop 1.28 Crash Test 2.2 Slippery When Wet

		<p>4.2 Clay Car Races</p> <p>4.3 Toy Cars</p> <p>4.5 Designing Paper Airplanes</p> <p>4.6 Design A Boat Challenge</p>
	Electricity & Magnetism	<p>1.4 Magnetic Travel</p> <p>1.6 Marbles in Motion</p> <p>2.4 Soap Boats</p> <p>3.5 Classification Using Rocks</p> <p>STEM conference activity: Simple Circuits</p>
	Seasons & Weather	<p>1.14 Ice Cream & Thermal Energy (water cycle extension)</p>
	Climates in Different Regions of the World	
	Interdependent Relationships & Ecosystems	
	Fossils Provide Evidence of Past Life	<p>3.5 Classification Using Rocks</p>
	Plant & Animal Life Cycles & Reproduction	<p>2.5 Butterfly Camouflage</p>
	Inherited Characteristics & Variation	<p>2.5 Butterfly Camouflage</p>
	Adaptation: Change Over Time	<p>2.5 Butterfly Camouflage</p>
Grade 4	Energy: Forms, Storage, Conversion & Transfer Properties of Waves	<p>1.5 Potential & Kinetic Energy</p> <p>1.9 Slinky Science</p> <p>1.11 The Domino Chain Reaction</p> <p>1.12 Domino Speed/Distance Lab</p> <p>1.14 Ice Cream & Thermal Energy</p> <p>1.17 Speaker Power</p> <p>1.18 Pinwheel Power</p> <p>1.19 Pendulum Problem</p> <p>1.23 Balloon Rockets</p> <p>1.24 Force & Rubber Band Airplanes</p> <p>1.25 Shoot for the Sky</p> <p>1.28 Crash Test</p> <p>2.3 Eat A Rock</p> <p>2.19 Food: Fuel for Humans</p> <p>2.21 Energy & Propulsion</p> <p>4.2 Clay Car Races</p>
	Light & Vision	<p>3.7 Studying & Making Crystals</p>
	Patterns to Transfer Information	<p>1.7 Volume of Irregular Objects</p>

		1.8 Marbles & Cylinders
	Internal/External Structures of Plants & Animals Senses/Brain Roles in Receiving/Processing Information	
	Rock Formation & Fossils	3.5 Classification Using Rocks
	Erosion & Weathering	2.3 Eat A Rock 2.9 Water Erosion and Pollution 3.5 Classification Using Rocks
	Analyzing & Interpreting Maps	3.9 Garage Sale Topography 3.10 Using Maps to Calculate gas Mileage 3.11 Creating a Schoolyard Map
	Impact of Earth Processes on Humans	
Grade 5	All Matter is Made up of Small Particles	2.3 Eat A Rock 2.10 Splash of Color 2.13 Floating Oranges
	Identifying Materials Based on Properties	2.8 Do Oil & Water Mix? 3.7 Studying & Making Crystals
	Measuring & Graphing Quantitative Data Regarding Conservation of Matter	2.13 Floating Oranges 3.5 Classification Using Rocks 4.6 Design A Boat Challenge
	Chemical Reactions	2.8 Do Oil & Water Mix? 2.12 Curious Cubes 3.7 Studying & Making Crystals
	Earth's Gravitational Pull is Down	1.22 Drop, Drop, What is Gravity? 4.4 Creating A Wrecking Ball 4.5 Designing Paper Airplanes 4.6 Design A Boat Challenge (Using the Triple Beam Balance Scale)
	Identifying Patterns in the Earth/Sun Relationship	
	Interactions Between Earth's Systems	
	Water Distribution & Sources	
	Plants Get Materials for Growth from Water/Air	

	Energy in Food Comes from the Sun	2.19 Food: Fuel for Humans 2.20 Exercise & Energy
	Decomposers & Ecosystems	
	Protecting Earth's Resources	4.7 Designing A Spaghetti Bridge 4.8 Bridges 4.9 Civil Engineering
Middle School	Matter & Its Interactions	2.13 Floating Oranges 3.5 Classification Using Rocks 4.6 Design A Boat Challenge 2.3 Eat A Rock
	Motion & Stability: Forces & Interactions	1.5 Potential & Kinetic Energy 1.19 Pendulum Problem 1.20 Newton's Marbles 1.21 Fuel Consumption & Newton's 2nd Law of Motion 1.23 Balloon Rockets 1.24 Force & Rubber Band Airplanes 1.25 Shoot for the Sky 1.26 Book Drop 1.28 Crash Test 2.2 Slippery When Wet 4.2 Clay Car Races 4.3 Toy Cars 4.5 Designing Paper Airplanes 4.6 Design A Boat Challenge
	Energy	1.5 Potential & Kinetic Energy 1.11 The Domino Chain Reaction 1.12 Domino Speed/Distance Lab 1.14 Ice Cream & Thermal Energy 1.19 Pendulum Problem 1.20 Newton's Marbles 1.21 Fuel Consumption & Newton's 2nd Law of Motion 1.23 Balloon Rockets 1.24 Force & Rubber Band Airplanes 1.25 Shoot for the Sky 1.26 Book Drop 1.28 Crash Test 2.2 Slippery When Wet 4.2 Clay Car Races 4.3 Toy Cars 4.5 Designing Paper Airplanes 4.6 Design A Boat Challenge
	Waves & Their Applications in	1.10 Seismic Science

	Technologies for Information Transfer	1.16 Traveling Sounds STEM conference activity: Simple Circuits
	From Molecules to Organisms: Structures & Processes	2.4 Soap Boats
	Ecosystems: Interactions, Energy, and Dynamics	2.8 Do Oil & Water Mix? 2.9 Water Erosion and Pollution
	Heredity: Inheritance and Variation of Traits	2.5 Butterfly Camouflage
	Biological Evolution: Unity and Diversity	2.5 Butterfly Camouflage
	Earth's Place in the Universe	
	Earth's Systems	
	Earth & Human Activity	1.21 Fuel Consumption & Newton's 2nd Law of Motion 2.1 All Aboard 4.7 Designing A Spaghetti Bridge 4.8 Bridges 4.9 Civil Engineering
	Engineering Design	1.23 Balloon Rockets 1.24 Force & Rubber Band Airplanes 1.25 Shoot for the Sky 4.2 Clay Car Races 4.5 Designing Paper Airplanes 4.6 Design A Boat Challenge 4.7 Designing A Spaghetti Bridge 4.8 Bridges 4.9 Civil Engineering