

### Animals and Adaptations

 Meet the reptiles from our animal room and learn all about their natural environments as well as their adaptations. Each student will have the opportunity to touch the reptiles and meet them up close!

### • Effervescent Launchers: Projectile motion

This program can be used to explain the concepts of angle of trajectory vs.
 distance for projectile motion. Students will learn about the Alka seltzer/water reaction that takes place during this experiment which
 produces a gas and provides the force needed to launch a handmade rocket!

### • Magic Sand: Hydrophilic vs. Hydrophobic substances

 Introduces students to "water-loving" (hydrophilic) and "water-hating" (hydrophobic) substances by using sand and coated sand (Magic sand)

### Everyday Uses of Minerals

• This program demonstrates the everyday uses of minerals and mineral resources by 1) recognizing the characteristics of a few important minerals, and 2) matching minerals with their common-day materials and uses

### Mixing Colors

• Introduces students to the world of colors. Students will learn about the primary colors as well as secondary colors. They will make a hypothesis about what happens when you mix colors, and then test their hypothesis with a fun experiment!

### • Solids, Liquids, and Gases

 This program is an intro to the states of matter. Students will make a lava lamp as a hands-on way to learn about density, solubility, chemical reactions, and the states of matter.

### Tracing an Epidemic

 This program can be used to demonstrate how an epidemic spreads and how the carrier is identified

#### Weather Patterns

 Introduces students to the weather patterns of each season, how to observe weather, and how to predict weather

# AVAILABLE PROGRAMS 4th Grade

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### Chemical Reactions

 Introduces students to chemical reactions and shows them evidence of chemical changes

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### Gluey Putty: Intro to Polymers

 Introduces students to the concepts of polymers and cross-linkers and allows them to investigate their properties

# Microscopic Mystery

 Introduces students to the use of a microscope through an interactive mystery

# • Oil Spill Cleanup

 Allows students to find the quickest and most cost-effective method of cleaning an oil spill with an oil spill simulation

# • Properties of Carbon Dioxide

o Introduces students to various properties of Carbon Dioxide through a variety of demonstrations and experiments

### The Water Cycle

 Introduces students to the water cycle through an interactive water cycle in a bag activity as well as an interactive water table



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# Chemistry in a Ziploc Bag

 Allows students to react several chemicals and observe changes during the chemical reaction

# Density

 Introduces students to the concept of density through a variety of demonstrations and hands-on experiments

# Ecosystems

 Introduces students to the five major biomes, ecosystems, food chains, and abiotic/biotic factors

# Microscopic Mystery

 Introduces students to the use of a microscope through an interactive mystery

### Oil Spill Cleanup

 Allows students to find the quickest and most cost-effective method of cleaning an oil spill with an oil spill simulation

### pH

o Introduces students to acids, bases, and the pH scale

### Properties of Carbon Dioxide

 Introduces students to various properties of Carbon Dioxide through a variety of demonstrations and experiments

### • The Rock Cycle

o Introduces students to the rock cycle, fossils, and Earth's geologic history

# Water Pollution and The Water Cycle

# AVAILABLE PROGRAMS 6th Grade

# Animals and Adaptations

 Meet the reptiles from our animal room and learn all about their natural environments as well as their adaptations. Each student will have the opportunity to touch the reptiles and meet them up close!

# • Classifying Living Organisms

o Introduces students to the process of classifying living organisms, the levels of organization in an ecosystem, and more.

# Designing an Experiment

 Introduces students to the scientific method, the process of designing an experiment, and allows them to create their own experiment!

# Oil Spill Cleanup

 Allows students to find the quickest and most cost-effective method of cleaning an oil spill with an oil spill simulation

# • The Rock Cycle

o Introduces students to the rock cycle, fossils, and Earth's geologic history

# Water Pollution and The Water Cycle

# AVAILABLE PROGRAMS 7th Grade

# A Changing Climate

 Introduces students to the ways in which our climate has changed over time, patterns that we can observe, and ways to lessen our impact on the Earth

### All about Soil

 Introduces students to soil composition, soil nutrients, and the importance of soil. Students will also get to complete a soil ribbon test to determine the percentage of sand, silt, and clay present in a soil sample

### All about Cells

 Introduces students to the fascinating world of cells! They will learn about the differences between plant and animal cells through an interactive activity

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# Chemistry in a Ziploc Bag

 Students will use the scientific method to explain observations made when calcium chloride, sodium bicarbonate, water, and phenol red are mixed

### Chromatography: Separating Mixtures

 Demonstrates a technique or process for separating mixtures that is used by biologists, chemists, clinical scientists, and forensic scientists (detectives)

# AVAILABLE PROGRAMS 7th Grade Continued

### Ecosystems

 Introduces students to the five major biomes, ecosystems, food chains, and abiotic/biotic factors

# • Effervescent Launchers: Projectile Motion

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distance for projectile motion. Students will learn about the Alkaseltzer/water reaction that takes place during this experiment which
produces a gas and provides the force needed to launch a handmade rocket!

# • Minerals: Determining the properties of minerals

 Introduces students to some of the tests that geologists use to determine the properties of minerals

# • Tracing an Epidemic

o Demonstrates how an epidemic spreads and how the carrier is identified

# Water Pollution and The Water Cycle

# AVAILABLE PROGRAMS 8th Grade

# A Changing Climate

• Introduces students to the ways in which our climate has changed over time, patterns that we can observe, and ways to lessen our impact on the Earth

### • All about Soil

 Introduces students to soil composition, soil nutrients, and the importance of soil. Students will also get to complete a soil ribbon test to determine the percentage of sand, silt, and clay present in a soil sample

#### All about Cells

 Introduces students to the fascinating world of cells! They will learn about the differences between plant and animal cells through an interactive activity

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# • Effervescent Launchers: Angle of trajectory vs. distance

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 distance for projectile motion. Students will learn about the Alka seltzer/water reaction that takes place during this experiment which
 produces a gas and provides the force needed to launch a handmade rocket!

# • Fossils: Earth's Geologic History

 Introduces students to the geological time scale, the fossil record, index fossils, and the uses of fossils

# Minerals: Determining the properties of minerals

 Introduces students to some of the tests that geologists use to determine the properties of minerals

# AVAILABLE PROGRAMS 8th Grade continued

### pH

 Introduces students to acids, bases, and the pH scale through interactive demonstrations and experiments

#### Plate Tectonics

 Introduces students to the theories of plate tectonics through interactive demonstrations and experiments

# Gluey Putty: Understanding polymers and cross-linkers

 Introduces the concepts of polymers and cross-linkers and allows students to investigate their properties

# Properties of Waves

 Introduces students to the properties of waves by studying reflection, diffraction, and refraction of light

# • Types of Chemical Reactions

 Shows students the various types of chemical reactions through interactive experiments

# Water Pollution and The Water Cycle