

Programs by grade

Pre-K to Kindergarten

Five Senses

Students explore the five senses and try activities to illustrate them. Pre K to 2

Subjects: Physics

Types: In class

Insect and Animal Camouflage

What is camouflage and how do organisms use it to hide? Pre K - 2

Subjects: Biology
Insects

Types: In class

Magnets

Attraction, repulsion, uses of magnets. Grades K - 3

Subjects: Physics

Types: In class

Pre-K Math

Students learn about math concepts recommended by Common Core for kindergarten readiness: Sorting, Patterns, Random Numbers, Counting, Measurement, Geometry, Graphing, and Operations. (Multiple sessions.)

Subjects: Pre-K Programs

Types: In class

Pre-K Science

Students learn about science concepts recommended by Common Core for kindergarten readiness: Weather and Seasons, Animals in Winter, Magnets, Five Senses, Healthy Choices, Sink or Float, Animal Lifestyles, Solid or Liquid. (Multiple sessions.)

Subjects: Pre-K Programs

Types: In class

Elementary School

Achi Game

Cut out geometric shapes and use them to build the game board for this variation on tic-tac-toe. Use dried beans to play the game with a partner. Grades 2 -4

Subjects: Math

Types: Out of school

Acid and Base w/ Red Cabbage Indicator

Use red cabbage leaves to make a pH indicator, and test whether household chemicals are acid or base. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Acid Rain

Determine acid, base, and neutral by measuring pH; see the effects of these on Plaster of Paris. Grades 5 - 8

Subjects: Earth Science
Chemistry

Types: Mobile Lab
In class

Bat Measurement

Students use measurements to compare bats and humans. Grades 1 - 3

Subjects: Biology
Mammals

Types: In class

Beaks and Feet

How bird anatomy (types of beaks, types of feet) determines life style and food preference. Grades 3 to 6

Subjects: Biology
Birds
Ecology

Types: In class
Mobile Lab

Bouncy Buoyancy

Compare and calculate the densities of pairs of objects. Grades 4 - 7

Subjects: Physics

Types: In class
Mobile Lab

Bridge Building: Computer Model

Using computer software, students build and test bridges, and see that different designs and materials change the cost. Grades 6 - 12

Subjects: Engineering

Types: In class
Out of school

Bridge Building: Physical Model

Students build bridges from straws, tape, and cardboard, and test their strength. Grades 4 - 7

Subjects: Engineering

Types: In class
Out of school

Build a Battery using Coins

Explore the chemistry of batteries by stacking pennies and dimes with electrolyte soaked pads, and measuring the voltage produced with a multi-meter. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Butterfly Life Cycles

Students explore the world of insects, and learn how caterpillars change into butterflies.

Subjects: Biology
Insects

Types: In class

Cartesian Divers

Learn how changing density causes a submarine to sink and rise. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school
Mobile Lab

Cartesian Divers 2

Explore density and buoyancy by making a cartesian diver out of a plastic pipette. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Catapults

Work in teams to learn how a catapult works, and what variables you use to control your aim. Grades 3 & 4

Subjects: Physics

Types: In class
In class

Chemical Change - Identify an Unknown Substance

In this lab, students test four different white powders with four different liquids. They observe that the set of reactions the liquids have with each powder are different, and use that information to test and identify an unknown substance. Grades 5 - 7

Subjects: Chemistry
Forensics

Types: In class
Out of school

Chemical Reactions

This lab discusses what happens during a chemical reaction, and how mass is conserved. Students observe gas formation, solid formation, color change, and temperature change during chemical reactions. Grades 5 -7

Subjects: Chemistry

Types: In class
Out of school

Circuit on Paper

Create a "light-up" card using metallic tape to construct an electrical circuit on paper. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Color-Changing Slime

Make slime that includes a thermochromic pigment, and use it to explore the concept of heat transfer. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Computer Science

Four sections to familiarize students with computer technology: Computer Take-apart (and reassemble); Scratch Programming; Building Web Sites; Binary Numbers. Grades 4 - 8 (Multiple sessions)

Subjects: Technology

Types: Out of school

Computer Science: Making Web Sites

Students turn their computers into servers, and build simple HTML web sites to be viewed by anyone in the class. Grades 4 to 9 (Single or multiple sessions.)

Subjects: Technology

Types: Out of school

Computer Science: Programming and Coding

Students will use Scratch programming to learn about logic, control structures, variables, and more, as they make designs and games, and solve problems. (Multiple sessions)

Subjects: Technology

Types: Out of school

Coriolis Effect

Why do storms always rotate? Mark up a balloon with arrows to illustrate the forces that create the spiraling, rotating motion of storms.

Subjects: Earth Science

Types: In class
Mobile Lab

Daffy Density

Estimate the density of various objects using a density gradient of liquids in a graduated cylinder. Grades 4 - 7

Subjects: Physics

Types: In class
Mobile Lab

Dancing Plankton

Learn about the use of the microscope; observe and sketch three different microscopic organisms. Grades 4 - 7

Subjects: Biology
Life Sciences

Types: Mobile Lab

Diver Density

See what density is by comparing the weights and volumes of pairs of objects. Grades 4 - 7

Subjects: Earth Science
Physics

Types: In class
Mobile Lab

DNA Fingerprinting

Explore the DNA fingerprinting process by using paper “strands” of DNA to create DNA fingerprints. Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Electric Circuits: Series and Parallel

Build a number of circuits, including series and parallel. Grades 4 - 7

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electric Motor

Build a working electric motor with common materials: paper clips, magnets, and wire. Grades 5 - 8

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electromagnetism

See the effect of a magnet on a compass; build an electromagnetic rail “car”. Grades 4 - 6

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electroscope

Explore static electricity with balloons and build a simple electroscope to detect electrical charge. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Engineering

Students build and then test bridges and geodesic domes: straws, popsicle sticks and hot glue guns, paper, and computer simulation. New for 2019: building a model hydraulic lift. (Multiple sessions.) Grades 4 - 8

Subjects: Engineering

Types: Out of school

Fingerprints

Make a set of fingerprints and learn about characteristics that make them unique. Grades 3 - 6

Subjects: Forensics

Types: Out of school

Five Senses

Students explore the five senses and try activities to illustrate them. Pre K to 2

Subjects: Physics

Types: In class

Food Webs

How energy moves through a food web from producer to consumer to decomposer. Grades 3 to 5

Subjects: Biology
Ecology

Types: In class
Mobile Lab

Forensics

Students use various techniques to learn how crime scenes are analyzed. Grades 4 - 8 (Single or multiple sessions.)

Subjects: Forensics

Types: In class
Out of school

Friction

Balanced and unbalanced forces: weights on a string apply force to move an object, while friction balanced with that force makes it stop. Students use different numbers of weights to compare how much friction results, and how much force is needed for motion. Grades 3 to 5.

Subjects: Physics

Types: In class

Frog Life Cycles

Students learn about how tadpoles grow into frogs.

Subjects: Amphibians & Reptiles
Biology
Life Sciences

Types: In class

Geopanes

Construct three dimensional shapes with toothpicks and raisins. Dip them in soap solution to explore the patterns of soap films that are formed. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Glass

Low to high tech: Students examine obsidian arrowheads, glass compression strength, lenses, and fiber optics. Grades 3 - 8

Subjects: Technology

Types: In class
Out of school

Gummy Capsules

The powder form of a polymer found in seaweed slime is reconstituted and reacted with calcium ions in solution to create "gummy" shapes. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Identifying Plankton

Same organisms as "Dancing Plankton", but includes the use of a dichotomous key. Grades 5 - 8

Subjects: Biology
Life Sciences

Types: In class
Mobile Lab

Indicating Electrolysis

Make a pH indicator using red cabbage leaves. Use the indicator to explore what happens when electrical energy is used to split water into hydrogen and oxygen. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Insect and Animal Camouflage

What is camouflage and how do organisms use it to hide? Pre K - 2

Subjects: Biology
Insects

Types: In class

Intersection Game

Construct a game based on the intersection of rows and columns in a grid. Devise a scoring system for the game. Grades 3 - 6

Subjects: Math

Types: Out of school

Magnets

Attraction, repulsion, uses of magnets. Grades K - 3

Subjects: Physics

Types: In class

Magnets for Fun

Three surprising hands-on activities to show magnetism and electromagnetism.

Subjects: Physics
Technology

Types: In class
Mobile Lab

Matter and Energy

Examine devices that use different forms of energy, and explain how each one changes energy from one form to another. Grades 3 to 5

Subjects: Physics

Types: In class
Mobile Lab

Measurement

For grade 3, pretend to follow a recipe to practice measuring length, volume, and weight. Materials used: ruler, beaker, and balance scale.

Subjects: Math

Types: In class
Mobile Lab

Mystery Solutions

Test various substances with vinegar, iodine, and heat; then try to identify an unknown mixture using what you have learned. Grades 5 - 9

Subjects: Chemistry

Types: In class
Mobile Lab

Mystery Substances

Examine solutions under a microscope and try to identify an unknown mixture. Grades 5 - 8

Subjects: Chemistry

Types: In class
Mobile Lab

Nano Technology

Explore how things behave differently when extremely small. (Single or multiple sessions.) Grades 2 to 8.

Subjects: Technology

Types: In class
Out of school

Ocean acidification

Using chemical reactions, this lab gives students an idea what ocean acidification means, and explores its potential effects on marine life. Grades 5 - 7

Subjects: Chemistry
Earth Science

Types: In class
Out of school

Optical Illusions

Learn about and make illusions that show us how our visual perception works. Grades 3 to 6.

Subjects: Creativity

Types: In class
Out of school

Pen Chromatography

Use paper strips and two different solvents to separate the mixtures of colors in different black markers. Identify which was used to write a "ransom note". Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Pentominoes Game

Explore what shapes can be made by combining 5 squares, with faces touching each other, in every possible combination. Cut out the shapes and use them to play a "Tetris" style game. Grades 3 - 6

Subjects: Math

Types: Out of school

Photography Camp

Campers build working pinhole cameras, take pictures with them, and develop the prints in a darkroom, just like in the "old days". Then, we will use digital cameras: taking photos, talk about composition, and load the images onto laptops and edit the photos with special effects. (Grades 4 to 7.)

Subjects: Creativity

Types: Out of school

Polymer Balls

Explore polymers using Elmer's glue and borax to create bouncy balls. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Racing Camp

Campers make and race different kinds of racers: balloon cars, CO2 cars, mousetrap-powered cars, pinewood derby racers, and more! Grades 3 to 6. (Multiple sessions)

Subjects: Engineering
Physics

Types: Out of school

Rainbow in a Test-tube

Mix different concentrations of sugar solution in the colors of the rainbow, and make use of the differences in density to form layers in a test-tube. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Rocketry and Flight

Build various flying devices: rockets, hot air balloons, tumble wing gliders. Grades 4 - 8 (Multiple sessions.)

Subjects: Engineering
Technology

Types: Out of school

Saliva Testing

Test mock crime scene evidence for the presence of saliva using starch-agar plates and iodine solution. Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Science Show

Different shows on topics like: general physics, science and music. A different show each year. Air pressure, gravity, electricity, etc. Audience participation! (For large audiences: 100+)

Subjects: Various

Types: Large audience

Seeds and Seed Dispersal

Students explore different ways plants disperse their seeds and the mechanisms that ensure viable germination in the spring. Grades 2 to 4

Subjects: Plants
Biology

Types: In class

Simple Machines

Examine a number of common devices to recognize the simple machines that they are made of. Grades 3 to 5.

Subjects: Physics
Technology

Types: In class
Mobile Lab

Solar System (for older grades)

An audio-visual presentation exploring the planets - not your run-of-the-mill PowerPoint. Grades 4 to 6

Subjects: Physics

Types: In class

Solids and Liquids

Observe how two different liquids interact with each other, and explain density. Grades 2 to 3

Subjects: Earth Science
Physics

Types: In class

Space Camp

Campers build and launch rockets, watch "Apollo 13", do Scratch programming to make space games, and more! Grades 3 to 7. (Multiple sessions)

Subjects: Technology

Types: Out of school

Squishy Circuits

Use conducting and insulating dough to build electrical circuits. Grades 3 - 6

Subjects: Chemistry
Physics

Types: Out of school

Static Electricity

Observe some effects of static electricity. Grades 4 - 7

Subjects: Physics

Types: In class
Mobile Lab

Stem-Makes-Music Camp

Campers build and play musical instruments (marimba, "canjo", and percussion from recyclables), and compose musical pieces together, and then perform them on Friday for their families. Grades 4 to 7. (Multiple sessions)

Subjects: Creativity

Types: Out of school

Stop-Motion Animation

Students make movies frame by frame, with toys, objects, even people! Each student gets a copy of the DVD with all the movies the students have made. Grades 4 - 8 (Multiple sessions)

Subjects: Creativity

Types: Out of school

Waste Water Treatment

Re-create the five steps that a water filtration plant uses to clean water for drinking. Grades 4 - 7

Subjects: Earth Science

Types: In class
Mobile Lab

Water Cycle: Incredible Journey

See the water cycle in action from the viewpoint of a water droplet. Vocabulary includes: evaporation, condensation, precipitation, percolation, runoff. Grades 3 to 5

Subjects: Earth Science

Types: Mobile Lab

Middle School

Acid and Base w/ Red Cabbage Indicator

Use red cabbage leaves to make a pH indicator, and test whether household chemicals are acid or base. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Acid Rain

Determine acid, base, and neutral by measuring pH; see the effects of these on Plaster of Paris. Grades 5 - 8

Subjects: Earth Science
Chemistry

Types: Mobile Lab
In class

Acid Rain: Chemicals in the Air

Simple pH testing with red cabbage indicator; simulate acid rain with indicator by blowing CO₂ into it, increasing its acidity. Grades 6 to 8.

Subjects: Chemistry
Earth Science

Types: In class
Mobile Lab

Beaks and Feet

How bird anatomy (types of beaks, types of feet) determines life style and food preference. Grades 3 to 6

Subjects: Biology
Birds
Ecology

Types: In class
Mobile Lab

Bridge Building: Computer Model

Using computer software, students build and test bridges, and see that different designs and materials change the cost. Grades 6 - 12

Subjects: Engineering

Types: In class
Out of school

Bridge Building: Physical Model

Students build bridges from straws, tape, and cardboard, and test their strength. Grades 4 - 7

Subjects: Engineering

Types: In class
Out of school

Build a Battery using Coins

Explore the chemistry of batteries by stacking pennies and dimes with electrolyte soaked pads, and measuring the voltage produced with a multi-meter. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Cartesian Divers

Learn how changing density causes a submarine to sink and rise. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school
Mobile Lab

Cartesian Divers 2

Explore density and buoyancy by making a cartesian diver out of a plastic pipette. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Catapults

Work in teams to learn how a catapult works, and what variables you use to control your aim. Grades 3 & 4

Subjects: Physics

Types: In class
In class

Chemical Change - Identify an Unknown Substance

In this lab, students test four different white powders with four different liquids. They observe that the set of reactions the liquids have with each powder are different, and use that information to test and identify an unknown substance. Grades 5 - 7

Subjects: Chemistry
Forensics

Types: In class
Out of school

Chemical Reactions

This lab discusses what happens during a chemical reaction, and how mass is conserved. Students observe gas formation, solid formation, color change, and temperature change during chemical reactions. Grades 5 -7

Subjects: Chemistry

Types: In class
Out of school

Circuit on Paper

Create a "light-up" card using metallic tape to construct an electrical circuit on paper. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Cleaning Oil Spills

This lab gives students an opportunity to explore four methods for cleaning oil spills, using a model ocean in a cup. Grades 6 - 8

Subjects: Earth Science
Ecology

Types: In class
Out of school

Color-Changing Slime

Make slime that includes a thermochromic pigment, and use it to explore the concept of heat transfer. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Computer Science

Four sections to familiarize students with computer technology: Computer Take-apart (and reassemble); Scratch Programming; Building Web Sites; Binary Numbers. Grades 4 - 8 (Multiple sessions)

Subjects: Technology

Types: Out of school

Computer Science: Making Web Sites

Students turn their computers into servers, and build simple HTML web sites to be viewed by anyone in the class. Grades 4 to 9 (Single or multiple sessions.)

Subjects: Technology

Types: Out of school

Computer Science: Programming and Coding

Students will use Scratch programming to learn about logic, control structures, variables, and more, as they make designs and games, and solve problems. (Multiple sessions)

Subjects: Technology

Types: Out of school

Coriolis Effect

Why do storms always rotate? Mark up a balloon with arrows to illustrate the forces that create the spiraling, rotating motion of storms.

Subjects: Earth Science

Types: In class
Mobile Lab

Dancing Plankton

Learn about the use of the microscope; observe and sketch three different microscopic organisms. Grades 4 - 7

Subjects: Biology
Life Sciences

Types: Mobile Lab

Diver Density

See what density is by comparing the weights and volumes of pairs of objects. Grades 4 - 7

Subjects: Earth Science
Physics

Types: In class
Mobile Lab

DNA Fingerprinting

Explore the DNA fingerprinting process by using paper “strands” of DNA to create DNA fingerprints. Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Electric Circuits: Series and Parallel

Build a number of circuits, including series and parallel. Grades 4 - 7

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electric Motor

Build a working electric motor with common materials: paper clips, magnets, and wire. Grades 5 - 8

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electromagnetism

See the effect of a magnet on a compass; build an electromagnetic rail “car”. Grades 4 - 6

Subjects: Engineering
Physics

Types: In class
Mobile Lab

Electroscope

Explore static electricity with balloons and build a simple electroscope to detect electrical charge. Grades 3 - 6

Subjects: Physics

Types: In class
Out of school

Engineering

Students build and then test bridges and geodesic domes: straws, popsicle sticks and hot glue guns, paper, and computer simulation. New for 2019: building a model hydraulic lift. (Multiple sessions.) Grades 4 - 8

Subjects: Engineering

Types: Out of school

Evidence: Hair

Using microscopes, students analyze hair samples and solve a simple crime scenario. Grades 5 - 12

Subjects: Forensics

Types: Out of school

Fingerprints

Make a set of fingerprints and learn about characteristics that make them unique. Grades 3 - 6

Subjects: Forensics

Types: Out of school

Forensic Entomology

Using fly colony development to estimate time of death of a corpse. Grades 6 to 12.

Subjects: Forensics

Types: In class
Out of school

Forensics

Students use various techniques to learn how crime scenes are analyzed. Grades 4 - 8 (Single or multiple sessions.)

Subjects: Forensics

Types: In class
Out of school

Geopanes

Construct three dimensional shapes with toothpicks and raisins. Dip them in soap solution to explore the patterns of soap films that are formed. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Glass

Low to high tech: Students examine obsidian arrowheads, glass compression strength, lenses, and fiber optics. Grades 3 - 8

Subjects: Technology

Types: In class
Out of school

Gummy Capsules

The powder form of a polymer found in seaweed slime is reconstituted and reacted with calcium ions in solution to create "gummy" shapes. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Identifying Plankton

Same organisms as "Dancing Plankton", but includes the use of a dichotomous key. Grades 5 - 8

Subjects: Biology
Life Sciences

Types: In class
Mobile Lab

Indicating Electrolysis

Make a pH indicator using red cabbage leaves. Use the indicator to explore what happens when electrical energy is used to split water into hydrogen and oxygen. Grades 3 - 6

Subjects: Chemistry

Types: In class
Out of school

Intersection Game

Construct a game based on the intersection of rows and columns in a grid. Devise a scoring system for the game. Grades 3 - 6

Subjects: Math

Types: Out of school

Latitude and Longitude

Learn about how to find locations on a map of the Earth. Reinforce the concepts by using latitude and longitude to encode and decode messages with others in the group. Grades 6 to 8

Subjects: Earth Science
Math

Types: In class
Mobile Lab

Mystery Solutions

Test various substances with vinegar, iodine, and heat; then try to identify an unknown mixture using what you have learned. Grades 5 - 9

Subjects: Chemistry

Types: In class
Mobile Lab

Mystery Substances

Examine solutions under a microscope and try to identify an unknown mixture. Grades 5 - 8

Subjects: Chemistry

Types: In class
Mobile Lab

Nano Technology

Explore how things behave differently when extremely small. (Single or multiple sessions.) Grades 2 to 8.

Subjects: Technology

Types: In class
Out of school

Ocean acidification

Using chemical reactions, this lab gives students an idea what ocean acidification means, and explores its potential effects on marine life. Grades 5 - 7

Subjects: Chemistry
Earth Science

Types: In class
Out of school

Optical Illusions

Learn about and make illusions that show us how our visual perception works. Grades 3 to 6.

Subjects: Creativity

Types: In class
Out of school

Pen Chromatography

Use paper strips and two different solvents to separate the mixtures of colors in different black markers. Identify which was used to write a "ransom note". Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Pentominoes Game

Explore what shapes can be made by combining 5 squares, with faces touching each other, in every possible combination. Cut out the shapes and use them to play a "Tetris" style game. Grades 3 - 6

Subjects: Math

Types: Out of school

Photography Camp

Campers build working pinhole cameras, take pictures with them, and develop the prints in a darkroom, just like in the "old days". Then, we will use digital cameras: taking photos, talk about composition, and load the images onto laptops and edit the photos with special effects. (Grades 4 to 7.)

Subjects: Creativity

Types: Out of school

Planet Orbital Periods

Students use PowerPoint to construct a model that shows the relative speeds of the planets as they orbit the Sun. Grades 5 to 7

Subjects: Earth Science
Physics

Types: In class
Mobile Lab

Polymer Balls

Explore polymers using Elmer's glue and borax to create bouncy balls. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Rainbow in a Test-tube

Mix different concentrations of sugar solution in the colors of the rainbow, and make use of the differences in density to form layers in a test-tube. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Rocketry and Flight

Build various flying devices: rockets, hot air balloons, tumble wing gliders. Grades 4 - 8 (Multiple sessions.)

Subjects: Engineering
Technology

Types: Out of school

Saliva Testing

Test mock crime scene evidence for the presence of saliva using starch-agar plates and iodine solution. Grades 5 - 8

Subjects: Chemistry
Forensics

Types: In class
Out of school

Science Show

Different shows on topics like: general physics, science and music. A different show each year. Air pressure, gravity, electricity, etc. Audience participation! (For large audiences: 100+)

Subjects: Various

Types: Large audience

Seasons and the Earth's Orbit

Hands-on activities and a PowerPoint animation to explore why the Earth has seasons.

Subjects: Earth Science

Types: In class

Solar System (for older grades)

An audio-visual presentation exploring the planets - not your run-of-the-mill PowerPoint. Grades 4 to 6

Subjects: Physics

Types: In class

Sound Science

Using oscilloscope software and common objects, students will examine sound waves concepts: wavelength, amplitude, and frequency. Grades 7 - 8

Subjects: Physics

Types: In class

Technology

Space Camp

Campers build and launch rockets, watch "Apollo 13", do Scratch programming to make space games, and more! Grades 3 to 7. (Multiple sessions)

Subjects: Technology

Types: Out of school

Squishy Circuits

Use conducting and insulating dough to build electrical circuits. Grades 3 - 6

Subjects: Chemistry

Types: Out of school

Physics

Static Electricity

Observe some effects of static electricity. Grades 4 - 7

Subjects: Physics

Types: In class

Mobile Lab

Stem-Makes-Music Camp

Campers build and play musical instruments (marimba, "canjo", and percussion from recyclables), and compose musical pieces together, and then perform them on Friday for their families. Grades 4 to 7. (Multiple sessions)

Subjects: Creativity

Types: Out of school

Stop-Motion Animation

Students make movies frame by frame, with toys, objects, even people! Each student gets a copy of the DVD with all the movies the students have made. Grades 4 - 8 (Multiple sessions)

Subjects: Creativity

Types: Out of school

Waste Water Treatment

Re-create the five steps that a water filtration plant uses to clean water for drinking. Grades 4 - 7

Subjects: Earth Science

Types: In class

Mobile Lab

High School

Evidence: Hair

Using microscopes, students analyze hair samples and solve a simple crime scenario. Grades 5 - 12

Subjects: Forensics

Types: Out of school

Forensic Entomology

Using fly colony development to estimate time of death of a corpse. Grades 6 to 12.

Subjects: Forensics

Types: In class
Out of school