SCIENCE EXPLORERS®

STEMventures

Bring the field trip to your school!

HANDS-ON STEM LESSONS

Our STEMventures are learning-focused, support science standards, and use research-based practices to give elementary students engaging, hands-on STEM experiences!

Why?

- **Zero lost learning time**
  Students stay on campus, eliminating travel time.
- **No busing needed**
  Our instructors come to your location!
- **Curriculum support**
  Supplement current science instruction.
- **STEM discovery**
  Hands-on experiential learning helps students identify interests.







How it works

1. Choose your topic(s).
2. Schedule a day(s) and time approximately four weeks in advance.
3. Our instructors arrive with all the materials needed, ready for hands-on STEM fun!



IN-HOUSE FIELD TRIP SCHEDULING
programs@scienceexplorers.com
610-816-5047

Virtual options are available for schools that are far far away!



STEMventures Topics

Hands-On STEM Lessons | 2026–27

Chemistry & Materials Science

MATTER MONSTERS

Compare exothermic reactions that release heat with endothermic reactions that absorb it, while observing changes in states of matter. Create and decorate a solid 'monster' out of two liquids!

POLAR OPPOSITES

Investigate density and polarity, discover why oil and water don't mix, then create colorful lava-lamp test tubes that show how gases move through liquids.

BUBBLE BLAST BONANZA

Explore the science behind bubbles! Discover how chemistry and surface tension create strong, long-lasting bubbles, then mix a solution for giant floating bubbles.

SUNNY SLIME

Explore ultraviolet light and photochromic materials, then use UV light to activate two types of color-changing slime.

READY, SET, SUMMER!

Explore the properties of sand, create polymer bouncy balls, and investigate chemical reactions while making colorful sidewalk chalk.

FANTASTIC FIZZ

Experiment with some fun fizzing chemistry. Launch film-canister rockets with fizzy chemical reactions. Explore how ingredients and amounts affect reaction speed and rocket height.

POLYMER MAGIC

Experiment with super-absorbent polymers that can hold many times their weight and make water seem to disappear.

SLIME TIME

Create fluffy and chalkboard slime while exploring non-Newtonian fluids and how molecular cross-linking changes texture and behavior.

SECRET COLORS

Use chromatography to separate mixtures and reveal the hidden colors in candy, drink mix, and markers. Record results like a chemist.

STEMventures Topics

Physics: Forces, Light & Sound Energy

GOOD VIBRATIONS 

Discover how sound energy travels in waves through solids, liquids, and gases. Build a clucking cup and screaming balloon to observe vibration.

WATER RULES 

Explore cohesion, adhesion, surface tension, and capillary action through experiments that reveal the surprising properties of water.

ROCKIN' RAINBOWS 

Explore reflection, refraction, and the visible spectrum, then use absorbent polymers to make a rainbow in a tube.

AWESOME OSCILLOSCOPES 

Explore how sound energy is created by vibrations and how vibration speed changes pitch. Build a simple oscilloscope using a balloon, mirror, and laser light to compare the patterns made by high and low sounds.

AWESOME AIR 

Investigate air pressure and Bernoulli's Principle to see how moving air can create lift, flight, and balance.

BAG OF TRICKS 

Reveal the science behind apparent magic using air pressure, color-changing reactions, and forces that seem to defy gravity. Discover how science makes the seemingly impossible possible!

Mechanical & Structural Engineering

CATAPULT CRAZE 

Discover how simple machines help us do work with less effort. Dive into the science of levers through hands-on experimentation and build your own catapult. Test how far it can launch pom-poms!

BLAST OFF 

Apply Newton's Third Law with balloon-rocket races, then engineer and launch a stomp rocket powered by air.

TALL TOWERS 

Investigate how different shapes help make buildings strong and stable. Then, use what you've learned to design and build the tallest, strongest tower you can. It's all about problem-solving, testing ideas, and thinking like an engineer.

Please note: This lesson includes food products.

STEMventures Topics

Electrical Engineering & Invention

ART WITH A SPIN

Test conductors and insulators and learn about how energy flows. Build a spin-art machine that combines circuits, motion, and energy transfer with creative design. Finish by creating colorful art!

SAVVY CIRCUITS

Build a simple circuit, test conductors and insulators, and use the results to create a unique motorized invention.

DOT DASH DOT DOT

Build a working circuit and use it to send coded messages in morse code while learning how electricity flows.

Life Science & Human Biology

BLOOD IS THICKER THAN WATER

Investigate the science behind blood—what it's made of and how it helps your body stay healthy. Learn about red blood cells, white blood cells, platelets, and plasma, then make a model that represents the different parts of blood.

Please note: This lesson includes food products.

TAKE A DEEP BREATH

Explore the respiratory system and gas exchange, then engineer a working lung model that demonstrates air pressure.

Earth Science, Weather & Paleontology

FOSSIL SAFARI

Become a paleontologist and travel back in time to learn how fossils form and what they tell us about ancient plants and animals. Learn about and create the four types of fossils, identify a collection of marine fossils that are millions of years old, and use tools to excavate a 'dinosaur'.

EXTREME STORMS

Become a meteorologist by modeling a rain cloud, exploring thunder as sound, and creating a tornado in a bottle.



Ready to explore?

Contact Science Explorers to select lessons or schedule an in-house field trip.

programs@scienceexplorers.com | 610-816-5047

A few lessons may include the use of balloons. Please let Science Explorers know if your school has any latex allergies.