

MIDDLE SCHOOL

SCIENCE



FLINN
SCIENTIFIC

PRODUCT GUIDE 2020

FLINN

Science isn't just our business—it's our **passion.**

We believe in the promise of a better tomorrow—one that comes from your students. **You're committed to them. We're committed to you.**

Science is complex. It demands patience, rigor, concentration and determination. It requires commitment. No one can make science simpler, but we can make teaching it a bit easier for you—and that's exactly what we do. We're here to support you with the right hands-on learning solutions for science—plus the best supplies, instructions, activities and advice to help your labs run smoothly. We're committed to helping you deliver the best possible science experiences to your students that may one day lead them down the path to new discoveries.

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ON THE COVER

Flinn Basic Microscope

Give students a microscope with all the necessary functionality at $\frac{1}{3}$ the size. Cordless operation allows students to take it anywhere! See page 51 for details.



Online

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Order the 2020 Flinn Catalog/Reference Manual!

Visit www.flinnsci.com or call 1-800-452-1261 to get your copy of the 2020 Flinn Science Catalog/Reference Manual. This comprehensive product and resource guide includes our exclusive Safety Reference section, how-to tips and more valuable information designed to help make your classroom a safe and inspiring learning environment.

We're here for **you.**

Help for Your NGSS Journey

The Next Generation Science Standards (NGSS) are transforming science for you and your students. We're here to help with the transition.

Our Price Guarantee

Flinn ensures a competitive price every time! If you find a lower published nationally advertised catalog price for an identical item, we will "meet or beat" that price. Call us at 1-800-452-1261. Plus, we guarantee that no sale is complete unless you are satisfied. It's really that simple.

Proven Quality

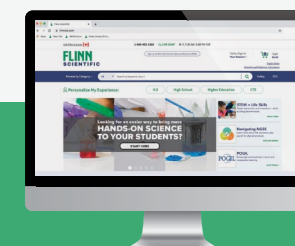
Shop with confidence. Every product we sell has gone through in-depth testing in our lab. We rigorously test them—so you can trust them.

In-Stock Inventory

We make our own chemical formulations, assemble our own kits and stock thousands of supplies—every day. Receive materials when you need them.

Your Satisfaction Is Our Priority

We guarantee that no sale is complete unless you are satisfied. It's really that simple.



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THE SCIENCE BEHIND HANDS-ON LEARNING

Download Flinn's exclusive *The Science Behind Hands-on Learning* poster at www.flinnsci.com/TheScienceBehind and follow us as we explore the science behind a new topic you can share with your students each month!



Navigating NGSS With Flinn

Comprehensive Learning Solutions

Let's Navigate NGSS... Together

Our mission is to guide you at every stage as you navigate and seek to understand and implement Next Generation Science Standards (NGSS). It is a multiphase journey that may require a variety of resources to transform your current method of facilitating instruction into one that reflects the vision of the NGSS.

Meeting You Where You Are

If you are new to NGSS or still learning in the very early stages of implementation, sample more than 1,300 laboratory activities and programs based on the specific topics you need to teach.

Our extensive offerings include:

- 360Science™ blended lab solutions
- FlinnSTEM Design Challenge™ Kits
- WhiteBox Learning® engineering applications
- FlinnSTEM™ powered by IMSA Fusion modules and units
- Getting Nerdy® units, bundles & activity packs
- NewPath Learning® science resources

PLUS so much more!

Take the Guesswork out of Aligning NGSS

For each Flinn lab aligned to the standards, we have included a helpful graphic that shows exactly how it correlates to NGSS. It includes the Science & Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs) and Crosscutting Concepts (CCCs) as well as the relevant performance expectations.

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Developing and using models Constructing explanations and designing solutions	MS-PS4.A: Wave Properties HS-PS4.A: Wave Properties	Patterns Systems and system models Stability and change
Performance Expectations MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.		

♥ “NGSS is a shift from learning about to figuring it out.”

DR. MIKE MARVEL
HEAD SCIENTIST, FLINN SCIENTIFIC

Much is already in print about Next Generation Science Standards (NGSS). But what does NGSS look and sound like? What **basics** are needed to understand the foundation of the NGSS? How are **phenomena** defined, and what are some ways to effectively facilitate meaningful investigations with students? What are **storylines** and what are powerful ways to produce them for classroom instruction? And with all of the chatter around it, is there a **glossary** of the key terms and concepts needed to successfully interpret the operation and culture of NGSS?

We know the journey to developing a 3-dimensional approach to NGSS is challenging. Now you can access our growing library of NGSS-aligned hands-on kits and digital programs, PLUS, take advantage of our articles, activities and videos, all designed to make teaching science easier in your classroom!



Video on the basics of the 3-dimensions

Downloadable PDFs have additional resource links

Visit www.flinnsci.com/ngss to get inspiration and gain insight from our growing collection of helpful videos and resources and our series of articles and webinars—all prepared to help you successfully implement the Next Generation Science Standards.

Learn More Online

FLINN

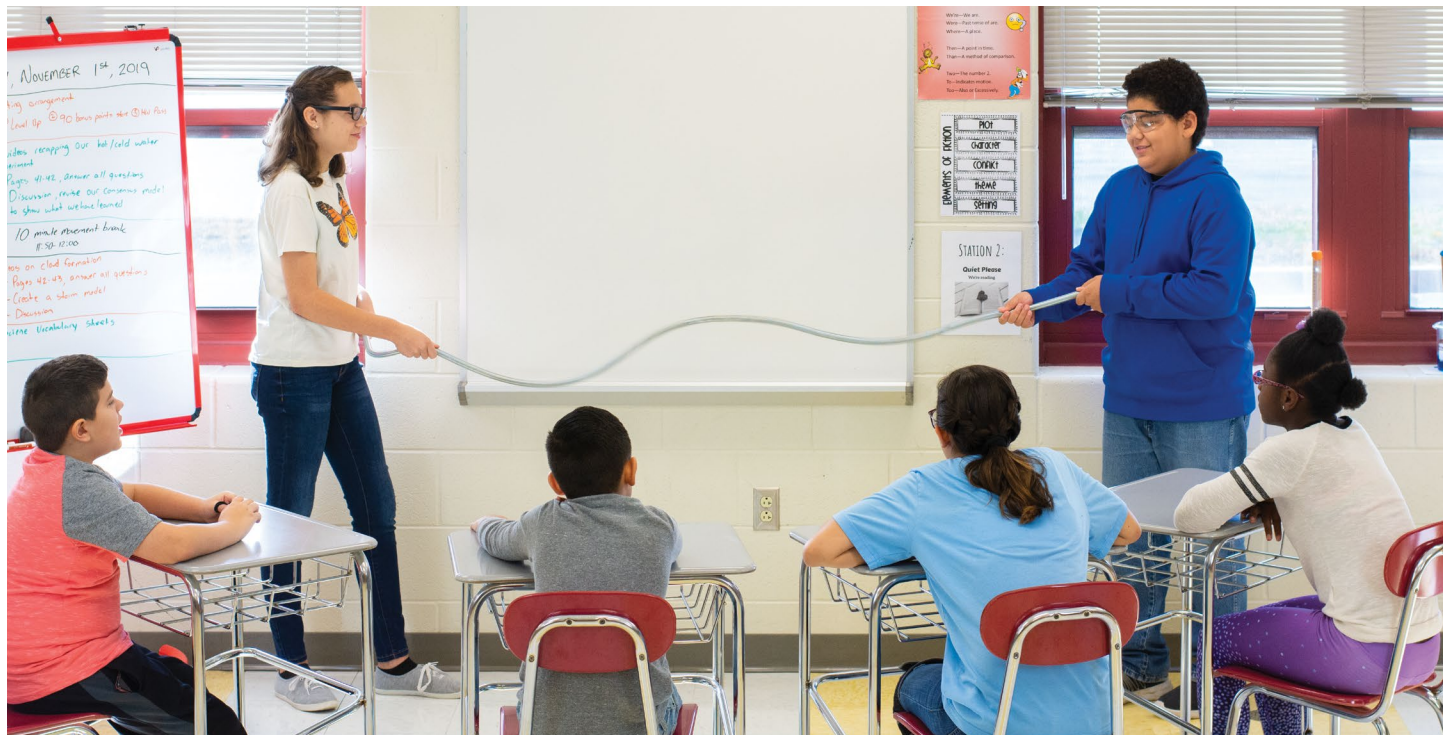
Visit www.flinnsci.com/ngss for more on products and resources to help you with NGSS implementation.

Email an Account Representative

Our account representatives can help you find the best solution to fit your classroom's needs. Email myaccountrep@flinnsci.com, and a regional account representative will follow up with you.

Talk to a Scientist

Have a question on how to implement NGSS in your classroom? Our scientists are available to help! Call **800-452-1261** to set up a 1-on-1 training session.



Demonstrations

Show Them the Science

Send a wave of excitement through your classroom and prepare students for successful and engaging lab experiences with demonstrations! Flinn's convenient, time-saving demonstration kits are available across the science curricula. These fast and easy kits contain all consumable materials, specialized equipment and reusable items you need to perform the demonstration 7 times (one for practice, one for each class and one for Murphy's Law). Lab apparatus found in most school science departments are not included in the kits.

When you purchase a Flinn Demonstration Kit, just open the box, review the Teacher Demonstration Notes (complete with background, procedures, tips and safety and disposal information), prepare per instructions and you're ready to conduct the demonstration!

Wave Demonstrator

Make waves with this 1.8-meter helical spring as you demonstrate standing, transverse and longitudinal wave properties.

AP9023—\$29.20

Density Box—Demonstration Kit

Watch as warm water rises and cold water sinks in this clear acrylic density demonstration chamber with a removable wall. Great for discussing convection currents, air turbulence and water turnover.

AP4784—\$39.10

Density Cube Set

Use this low-cost set of 10 one-inch cubes for a variety of density experiments. Contains one cube each of aluminum, steel, brass, copper, acrylic, nylon, poplar, oak, willow and polyethylene.

AP6058—\$36.20



A. Newtonian Demonstrator

Perfect for illustrating Newton's laws of motion and the conservation of momentum, the large swinging balls can be manually aligned to produce nearly perfect elastic collisions. 7" x 9" x 8½".

AP6913—\$36.00

B. Galileo's Gravity Drop

Recreate Galileo's legendary Leaning Tower of Pisa experiment and prove that objects experience uniform gravity acceleration. A great introduction to Newton's first and second laws of motion!

AP7297—\$57.45

C. Bowling Ball Pendulum—Demonstration Kit

Hold a heavy bowling ball pendulum to your nose, release the ball and allow it to swing through its arc without moving your head to demonstrate the law of conservation of energy.

AP6839—\$40.60

D. Ice Melting Blocks

Demonstrate heat conductors and insulators by placing ice cubes on identical-looking blocks—one cold, one warm. Watch as the cube on the cold block melts faster in this discrepant event.

AP6488—\$27.75

E. Convection of Liquids Tube

Demonstrate the motion caused by convection in a liquid. Fill the glass apparatus with water with dye at the top. Heat a lower corner and watch the dye follow the convection current. 15 x 20 cm.

AP6053—\$35.65

F. Student Magnetic Field Demonstrator

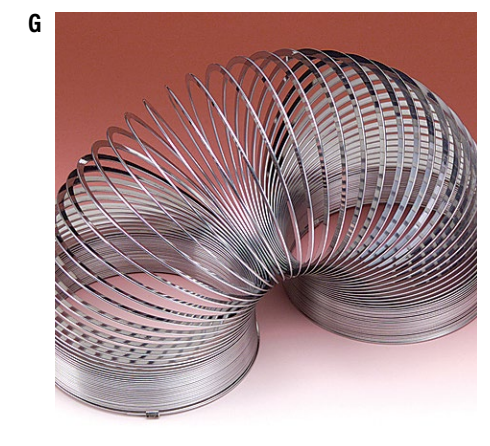
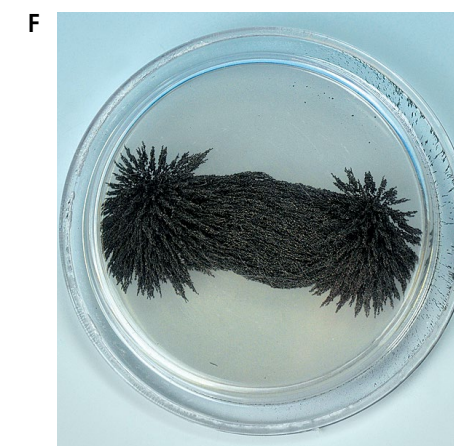
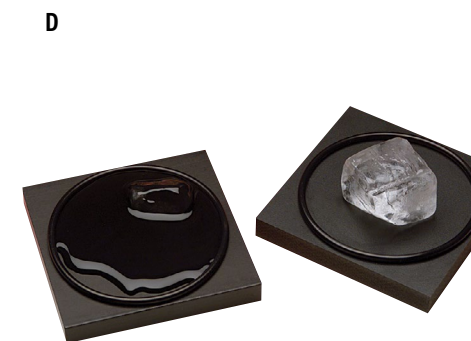
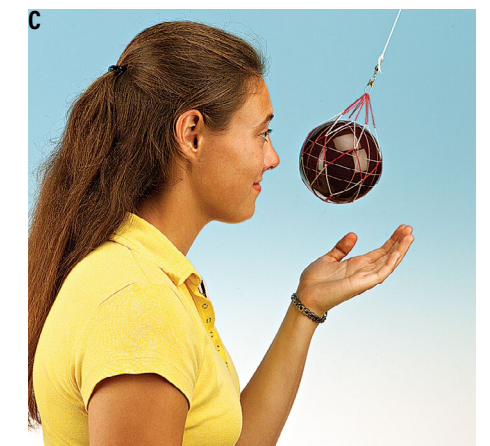
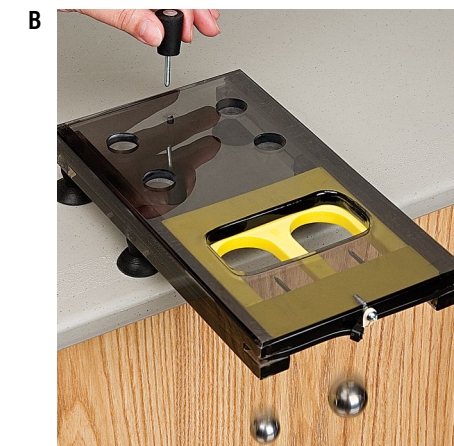
Iron filings sealed in a circular plastic transparent case respond to magnets on the flat outer surfaces. Magnetic force lines are viewed and maintained while students record their results.

AP6077—\$8.93

G. Slinky®

The original Slinky® stretches, snaps back and actually walks down stairs. A great simple device for wave demonstrations.

AP1957—\$9.98



Complement your physical demonstrations with books, posters and more. Go to www.flinnsci.com/ms to begin your search.

Flinn's chemistry demonstration kits contain the right amount of new, fresh chemicals you need. Visit www.flinnsci.com.

A. Polyurethane Foam System—Chemical Demonstration Kit

Package consists of two viscous liquids (a polyether polyol and a polyfunctional isocyanate) that, when mixed, produce a rigid foam with a volume 20–30 times larger than the mixture. **CO335—\$35.20**

B. Old Foamey—Chemical Demonstration Kit

Mix chemicals together with dishwashing liquid in a tall borosilicate cylinder and a large amount of soapy foam erupts, demonstrating the catalyzed decomposition of hydrogen peroxide. **AP2085—\$28.00**

C. Flinn Hands-On Chemical Element Set

This "hands-on" element set lets students pick up and safely investigate element properties and study characteristics across the periodic table. Includes 14 samples of 11 different elements. **AP6876—\$43.65**

D. A Reaction in a Bag

Three substances are mixed and changes in temperature, color and state occur. Then students design controlled experiments to identify the substances responsible for the changes. **AP6607—\$36.50**

E. Goldenrod Paper—Demonstration Kit

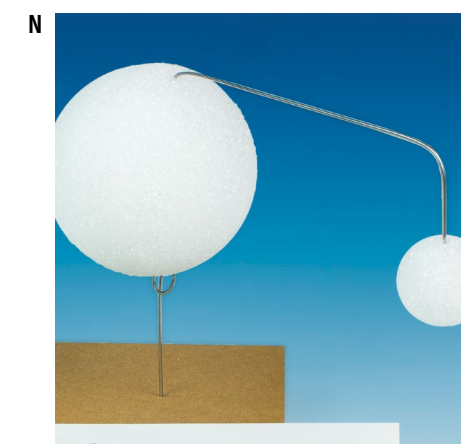
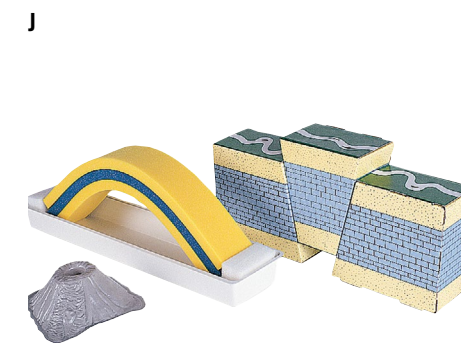
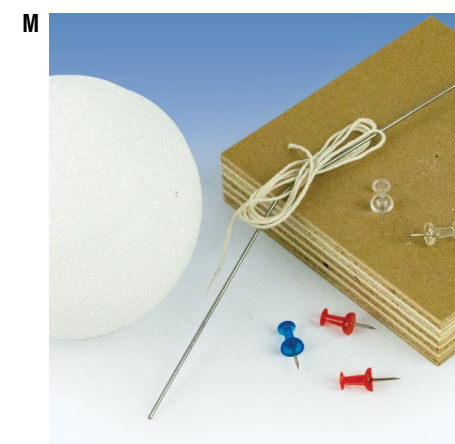
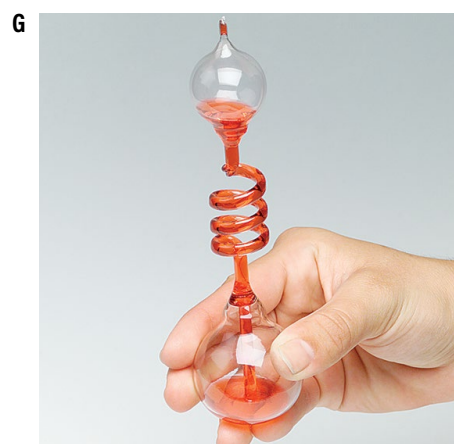
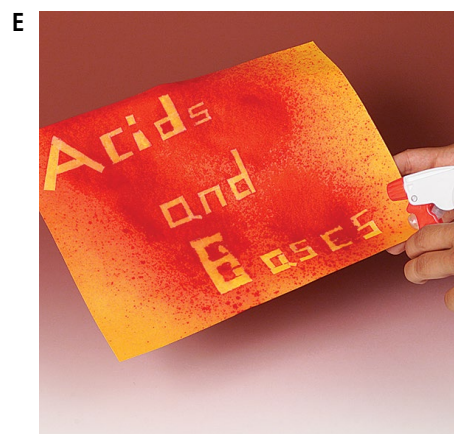
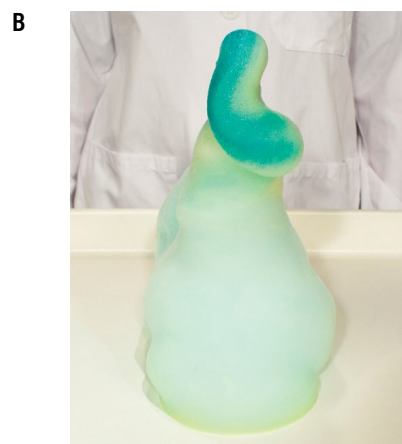
Bring this special acid paper into contact with a base and it changes from goldenrod to dark red. Write hidden messages or splash fake blood. Carbon dioxide in the air slowly changes the color back to goldenrod. **AP9868—\$17.45**

F. Carbon Snake—Chemical Demonstration Kit

Explain the decomposition of chemicals when they are exposed to flames in the presence of oxygen as students see carbon come out of sand and simulate a snake in this exothermic reaction. **AP9584—\$24.65**

G. Hand Boiler

Amaze students by boiling liquid with the touch of your hand and even perform a fractional distillation (instructions included) with this fun and simple hand boiler. **AP9293—\$8.62**



H. Tectonics Model—Demonstration Kit

Demonstrate the forces of tectonic processes with this hands-on model. Brightly colored sand simulates the formation of folds, faults, erosion and rift valleys. Model size: 13" L x 7½" W x 4" H. **AP7178—\$92.65**

I. Colorful Stalactites and Stalagmites—Demonstration Kit

The double replacement reactions in this kit illustrate stalactite and stalagmite creation and precipitate formation on a macro scale. **AP6538—\$42.75**

J. Landform Demonstration Kit

Show a mountain forming, build your own fault blocks or erupt a volcano with colored flexible foam strips that can bend, arch and fold to illustrate hard-to-define natural occurrences. **AP5124—\$73.90**

K. Ocean Current—Demonstration Model

Demonstrate the effects of temperature on the circulation of water, placing cold blue water on one side and hot red water on the other. Then set up a saltwater concentration gradient. **AP7313—\$34.20**

L. Becker Bottles

The 3-L Becker Bottles "One in a Million" and "One in a Million Too" visually illustrate the concepts of molecular concentration and parts per million contamination, respectively, in a clear and concise way. **AP4559—"One in a Million"—\$51.35**
AP4854—"One in a Million Too"—\$50.85

M. Earth's Orbit and Seasons—Demonstration Kit

Students can observe the changing of the seasons in the Northern and Southern Hemispheres and see the variation in day length all over the world throughout the year. **AP6150—\$14.05**

N. Eclipses—Demonstration Kit

Use this model to demonstrate how both solar and lunar eclipses occur. As students make observations, their partial understanding of these astronomical phenomena moves toward totality. **AP8339—\$16.10**

Earth science demonstrations resize the world's biggest concepts on a smaller scale to enhance student understanding.



Hands-On Kits

Because Doing Is Learning

Make the classroom lab experience memorable and engaging with Flinn's hands-on student laboratory kits. Reading about concepts pales next to actually doing and engaging in the science at hand, so Flinn has provided step-by-step student procedures and all consumable materials conveniently in ready-to-use hands-on kits.

For teachers, Flinn's hands-on lab kits are a win-win, saving on planning and preparation time. Complete with all the consumable and specialized materials needed along with detailed student instructions as well as teacher notes that include tips, sample data and answers, these kits make hands-on laboratory experiences the norm!



360Science™: Bean Bag Isotopes

Students investigate the mass and relative abundance of three isotopes for the "bean bag" element, Bg, and then calculate Bg's atomic mass to understand the relationship between the atomic and isotope mass.

[API0350](#)—1-Year Access—\$51.50
[API0450](#)—3-Year Access—\$66.95

Introducing 360Science™

Hands-On Science, Reimagined

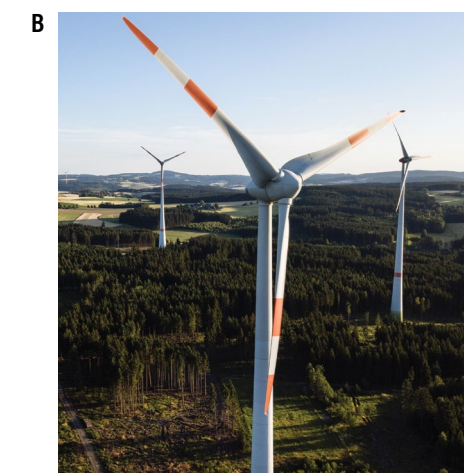
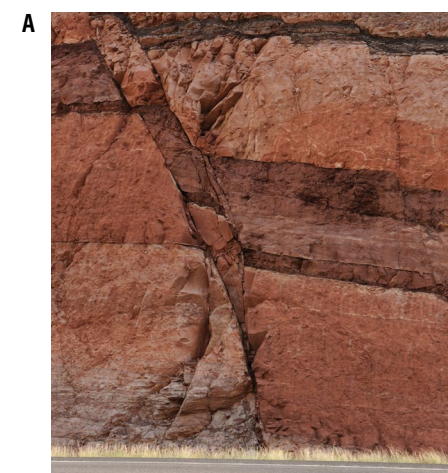
New from Flinn, 360Science™ transforms the traditional prescriptive lab to an adaptive, learner-centered environment where students explore and do science around real-world phenomena.

Each kit offers editable instructions that range from a time-sensitive prescriptive lab to full open inquiry experience. Robust online videos and content—including virtual reality (VR) simulations—further help students prepare for and better understand the labs they're conducting. See what labs are available for your middle school science classroom.

A. 360Science™: Construct Model Faults

Students create a model landform section with multiple layers to simulate, study and sketch the movements of normal, reverse and strike-slip faults then they explore their impact on the Earth.

[API0346](#)—1-Year Access—\$36.05
[API0446](#)—3-Year Access—\$51.50



B. 360Science™: Electricity with Wind Energy

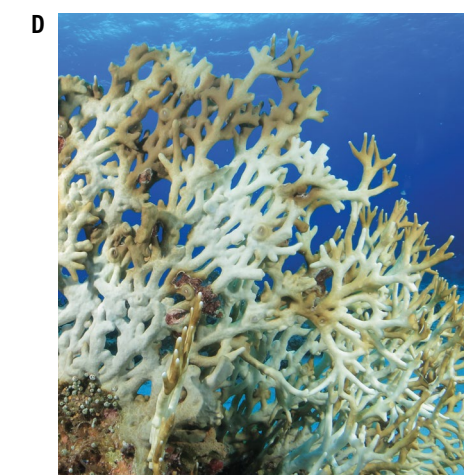
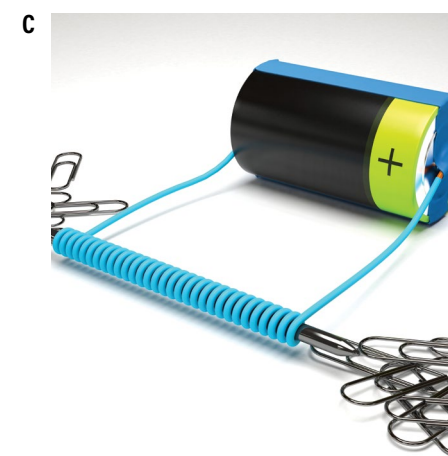
Challenge students to design a mini wind turbine—considering how blade material, angle, size, shape and placement affect the design—then investigate how the design affects power output.

[API0339](#)—1-Year Access—\$51.50
[API0439](#)—3-Year Access—\$66.95

C. 360Science™: Introduction to Electromagnetism

Students explore electromagnets and examine how an electric field from a battery generates a magnetic current through wire as they build their own electromagnets with and without an iron core.

[API0340](#)—1-Year Access—\$97.85
[API0440](#)—3-Year Access—\$113.00



D. 360Science™: Design a Model of Ocean Acidification

Students are challenged to demonstrate the complex relationship between carbon cycling and ocean acidification as well as the effects acidification has on coral reef formation.

[API0390](#)—1-Year Access—\$77.25
[API0490](#)—3-Year Access—\$92.70

E. 360Science™: Abrasive Compounds

Students design a compound that removes the copper layer from a penny's surface to leave behind highly polished zinc and discover the tradeoff between removal rate and quality of the finish.

[API0425](#)—1-Year Access—\$61.80
[API0525](#)—3-Year Access—\$77.25



F. 360Science™: Elemental Metals, Nonmetals and Metalloids

Students characterize elemental samples as metals, nonmetals or metalloids using elemental position on the periodic table and identify trends associated with metallic characteristics.

[API0356](#)—1-Year Access—\$82.40
[API0456](#)—3-Year Access—\$97.85

Balloon Cars Challenge—Guided-Inquiry Kit

Groups construct and test an easy-to-assemble balloon-powered car prototype and identify variables that affect the car's performance. Modifications are made to investigate variables and the redesigned cars are put to the test.

AP7922—\$55.35



Physical Science

Put the laws and principles of physical science to the test by engaging students with hands-on kits that put science in motion.



Air Pucks—Student Activity Kit

Students conduct hands-on exploration of Newton's laws of motion, inertia, collisions, velocity and acceleration with pucks that float on a cushion of air above any smooth, flat surface as air escapes the balloon.

AP6917—\$91.25



Magnets and Magnetism—Super Value Activity-Stations Kit

Easy-to-set-up lab stations let groups work independently to examine aspects of magnetism. Students explore the properties of magnets, build an electromagnet, investigate electromagnetic induction and build a DC motor.

AP7013—\$155.00



Newton's Laws—Activity-Stations Kit

In this activity-stations lab, students investigate inertia, force and acceleration using air pucks, carts and pulleys with hanging weights and balloon rockets, respectively. Each independent mini-lab activity takes 10–15 minutes.

AP7408—\$91.35



Force and Motion—Super Value Laboratory Kit

This all-in-one kit explores the fundamentals of force and motion. Five experiments cover balanced and unbalanced forces on an inclined plane, frictional forces, Hooke's law, rotational motion and collisions in one dimension.

AP6929—\$166.00



Introduction to Electromagnetism—Student Activity Kit

Students investigate the basics of electromagnetism, exploring magnetic fields with electric currents through wires, building an electromagnet and constructing a solenoid to generate electric current when combined with magnets.

AP6271—\$97.35



Balloon Rockets—Guided Inquiry Kit

Students investigate Newton's laws of motion and rocket thrust as they build a balloon "rocket" to travel across the room as they test successful combinations of orientation, drag and thrust through various trials.

AP6927—\$41.80

A. Chemical Reactions

Students perform five reactions, look for evidence of a chemical reaction, write the chemical equations for each and classify the reactions according to reaction types.
AP4860—\$130.00

B. Observation and Experiment

Students get introduced to the scientific method as they mix two solids and a liquid in a closed container and observe a series of changes then identify the substances responsible.
AP6167—\$45.35

C. Metal, Nonmetal or Metalloid?

Students explore physical and chemical properties of eight elements, classifying them as metals, nonmetals or metalloids and generalizing about common properties.
AP5935—\$62.15

D. Ob-Scertainer Kit—A Better Black Box

By manipulating a black box and hearing and feeling how the steel ball rolls around inside, students make observations, collect data and test a hypothesis about the shape inside.
AP4549—\$96.60

E. Exothermic & Endothermic Reactions

Students explore energy changes during exothermic and endothermic chemical reactions, measuring significant changes and determining the heat released or absorbed.
AP6128—\$50.90

F. Flame Test—Student Laboratory Kit

Students dip a moist wooden splint in six different solid metallic salts and light them to observe the characteristic color of light emitted by them when placed in a flame.
AP5607—\$33.00

G. Build Models of Molecules

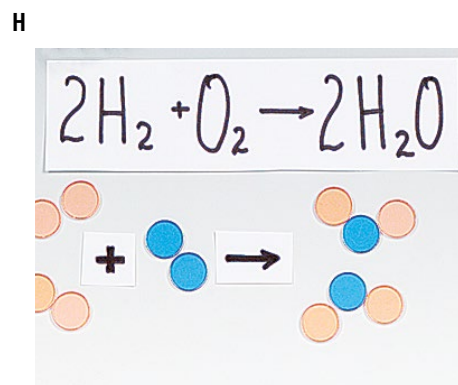
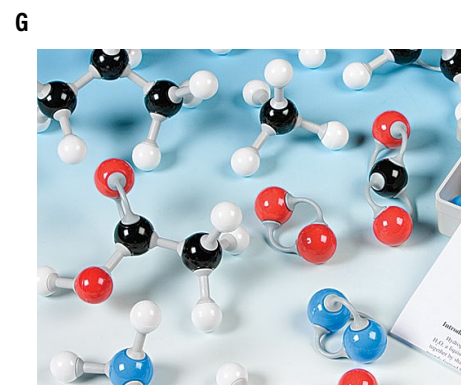
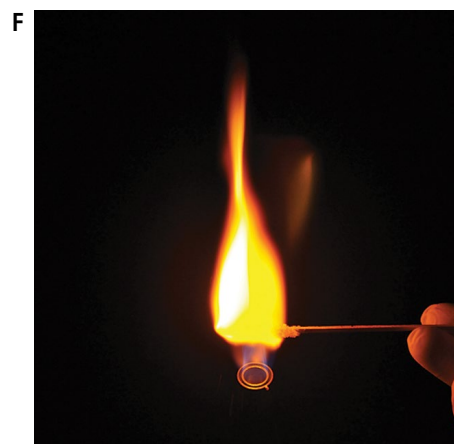
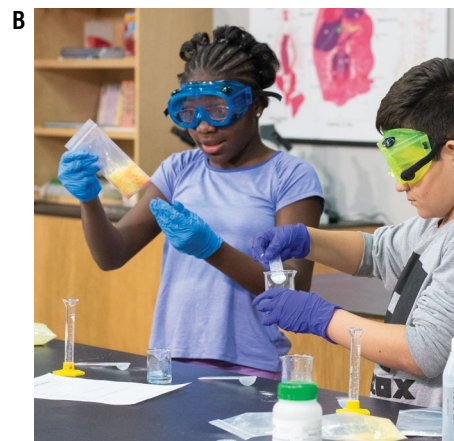
Through a demonstration and four self-contained, student-centered activities, students build molecules using models then determine and draw the structural formula for each.
AP7289—\$64.90

H. Balancing Equations—Super Value Kit

Use this hands-on kit to make the abstract concept of “atoms” more visual and real for students with activities that use colored chips as model atoms and molecules.
AP4577—\$42.70

I. Introduction to Electron Structure

Students understand electron structure by constructing 15 workstation “atoms” with an energy level diagram, a symbol for a neutral atom or ion and bingo chip electrons.
AP6608—\$41.15



Explore the full spectrum of physical science hands-on activities and experiments on www.flinnsci.com.



Conduction, Convection and Radiation—Activity-Stations Kit

Four hands-on experiments let students discover the basic principles of heat transfer, including conduction, convection of a liquid, convection of a gas and radiation.
AP7183—\$78.40



Discovering Density—Looking for Patterns and Trends—Super Value Laboratory Kit

Students collect and graph mass and volume data to identify patterns and trends and analyze relationships then compare their results with known quantities to discover their accuracy.
AP7169—\$54.35



Waves and Sound—Student Laboratory Kit

Five hands-on experiments explore amplitude, period, wavelength and frequency, constructive and destructive interference, the speed of sound in air and the Doppler effect.
AP7014—\$137.00



Measurement Challenge—A Density Super Value Guided-Inquiry Kit

Students learn to make accurate measurements, estimate to the proper level of certainty and apply rules for significant figures in calculations with these hands-on, leveled activities.
AP5939—\$89.05



Introduction to Reflection and Refraction—Activity-Stations Kit

Students explore the principles of reflection and refraction and the properties of visible light in three hands-on experiments with plane mirrors, refraction of a transmitted light and multiple images.
AP7449—\$44.15



Simple Circuits—Super Value Laboratory Kit

Students use lightbulbs and alligator-clipped wires to build simple series and parallel circuits, study their characteristics and learn that different circuit configurations affect the flow of electric current.
AP6302—\$47.95



Life Science

Grow your curriculum with Flinn's collection of hands-on life science kits that explore plants, animals and the microscopic world.



Adaptations—Activity-Stations Kit

In four activity stations, students learn the advantages of an opposable thumb, depth perception, concealing coloration and the insulation of feathers.
FB2197—\$62.35



Survival Island—Super Value Kit

This simulation mimics the Easter Island story—the fate of a small island with finite area and resources—to illustrate that natural resources are limited and depletion can be disastrous.
FB1577—\$44.65



Prey vs. Predator—Win, Lose or Draw? Super Value Kit

Student "predators" capture "prey," using a variety of bean types, to survive and produce offspring, discovering that the relationship between prey, predators and the environment are critical to survival.
FB1746—\$60.95



Flow of Genetic Information Kit

With this durable 3-D kit, students manipulate more than 300 color-coded foam pieces to model DNA replication, transcription of DNA into RNA and translation of RNA into proteins.
FB2147—\$123.00



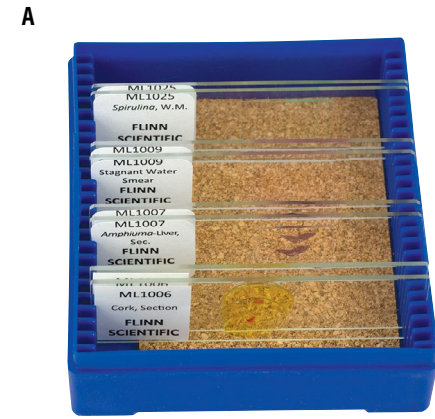
Genetics of Taste—Super Value Laboratory Kit

Students explore whether the ability to taste various substances is genetic by collecting class and family data on the ability to taste PTC. They then make family pedigrees to determine the genetics involved.
FB2064—\$46.90

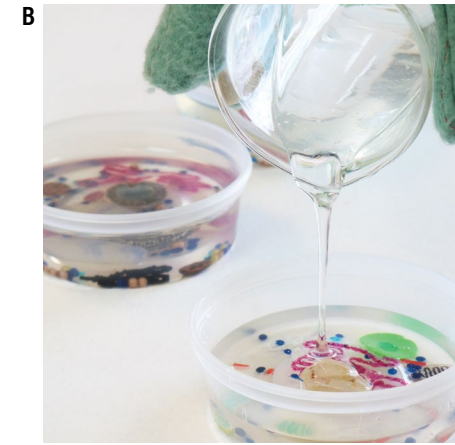


DNA in Action—Super Value Kit

Make "twisted ladder" and "double helix" concepts clear as students build their own DNA models to show DNA replication, transcription and translation. This kit includes more than 2,700 pop beads.
FB1223—\$115.00



A



B

A. Prokaryotes vs. Eukaryotes

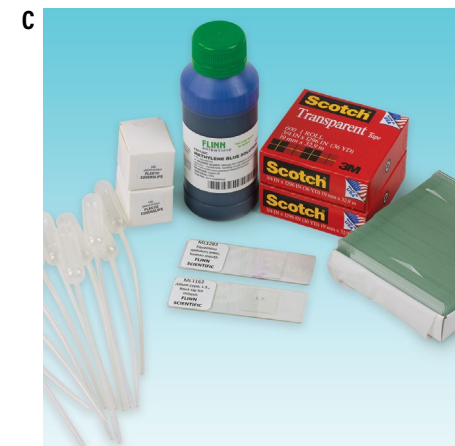
Discover the key features that differentiate living things as prokaryotes or eukaryotes by observing and analyzing four different samples of cell types on microscope slides.
FB2013—\$50.55

B. Make Your Own Cell

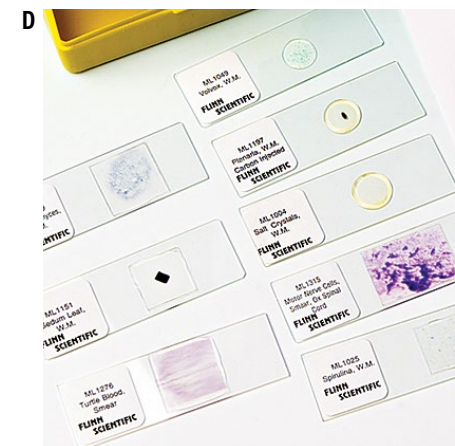
Students gather internal cell structure materials and use an exclusive melt-and-pour polymer, Flinn Cellgel™, to mold their own unique 3-D model of a cell.
FB1612—Student Laboratory Kit—\$51.15
FB1613—Flinn Cellgel™ Refill Kit—\$31.45

C. Exploring Plant and Animal Cells

Students identify and label the parts of animal and plant cells then prepare and stain their own cell microscope slides.
FB2055—\$78.90



C



D

D. Microscope "Mystery"

Students view specimens at different magnifications and draw what they see then calculate the microscopic size and identify "mystery" slides.
FB1751—\$52.30

E. ABO/Rh Blood Typing

Students characterize their own blood with this complete blood typing kit. Includes all materials for completion in a single class period.
FB1221—\$124.00

F. Classifying Living Things

Students learn about biodiversity with a set of illustrated cards and dichotomous keys to classify organisms into Kingdoms and phyla.
FB1789—\$41.00



E



F

G. Fun With Classification

Students work in groups to identify the distinguishing features of rubber fishing lures and develop dichotomous keys for classifying them.
FB1783—\$77.55

H. Leaf Identification, Set A

Real tree leaves have been assembled so students can identify leaves using a simple key and explore leaf morphology and adaptation.
FB0490—\$62.00

I. How a Food Web Is Formed

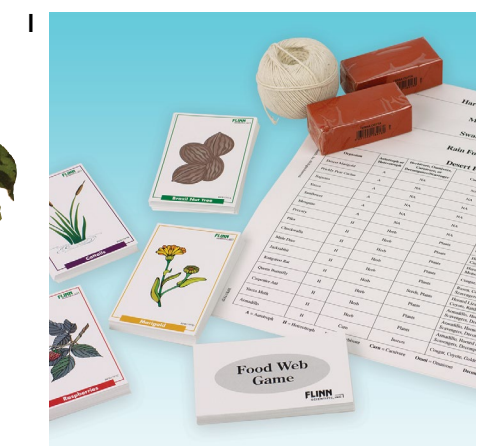
Students view drawings of organisms, study their characteristics and determine "who eats whom" as they assemble a food chain.
FB1797—\$62.75



G



H



I



Forensics

Give students a taste of how scientific techniques are used in the real world with an array of hands-on forensics kits.



Secret Communications: Sharing Concealed Messages

Ciphers, codes and delivery modes come together to foster inquiry into cryptology in 12 units as students solve "secret" messages and share encrypted ideas with others.

AP9577—\$325.00



Detective's Casebook—Forensic Laboratory Kit

Students test their forensics skills by conducting blood, chromatographic ink, handwriting and fingerprint tests while investigating and solving a simulated crime to "crack the case."

AP6865—\$84.20



Crime Scene: A Forensic Investigation Kit

Students read background and crime scene descriptions, a victim's note and motives as well as perform hair, blood, fiber, fingerprint and handwriting analyses to locate a culprit in the case.

AP4677—\$86.60



Forensic Supply Kit

Everything you need for simulated classroom crime scene investigations, including crime scene tape, evidence labels and bags, collection jars and envelopes and evidence numbers and seals.

AP7197—\$101.00



Stream Contamination—Forensic Laboratory Kit

A massive fish kill has occurred, and efforts are underway to determine why. Students become forensic scientists, using nitrate and phosphate tests to determine the culprit.

AP6863—\$64.25



Identification of Unknown Substances I—Forensic Laboratory Kit

Students become crime lab chemists and create a set of standards for the identification of four simulated drugs then perform chemical tests on an "unknown" drug from a crime scene.

FB1644—\$93.20



Flinn Fingerprinting—Activity-Stations Kit

Giant fingerprint sets help students learn key fingerprint patterns to identify a suspect then make their own fingerprints, practice techniques for lifting them and classify them.

FB1220—\$62.75



Flinn Forensic Files—Footwear Evidence

Students make permanent castings of their own footwear with the BioFoam® impression system then analyze and compare the results to the suspect's footprint from the crime scene.

AP7752—\$164.00



Flinn Forensic Files—Ink Inspection

Six different pens possibly used in a signature forgery have been gathered, and students act as forensic scientists, analyzing the components of each type of ink with radial chromatography.

AP7745—\$67.00



Mr. Mathematics Mysterious Murder—Student Laboratory Kit

Students gather evidence at a simulated crime scene and return to the lab to analyze it with tests that include fiber analysis, shoeprints, blood, stomach contents and fingerprints.

AP7060—\$78.10

Freshwater Pollution Testing—Super Value Kit

Students can check water quality using safe, simple and effective tablet-type tests to determine levels of chlorine, dissolved oxygen, nitrate, phosphate and pH. Includes detailed background information.
AP5954—\$211.00



Climate Change

Inspire your students' love of learning while teaching them how to care for their world with these hands-on climate change kits.



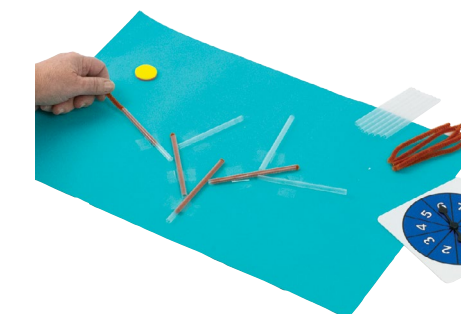
Greenhouse Effect and Global Warming—Student Laboratory Kit

Students gain understanding of the greenhouse effect and global warming by observing and analyzing a “greenhouse bottle” and collecting carbon dioxide and bubbling the gas samples through indicator solutions.
AP7324—\$72.95



Acid Rain and Plants—Student Laboratory Kit

Rain solutions of varying pH are placed on plant seedlings, and the harmful effects of acid rain are dramatic! Students gain in-depth knowledge of what acid rain is, how it forms and its devastating effects.
AP6300—\$88.15



Coral Reefs—IMSA Unit Kit

In this unit, students learn about the biology of coral then conduct a simulation to observe how natural and manmade factors impact the reef ecosystem. Students then research various reef-dwelling animals.
AP9981—\$51.15



Understanding Your Carbon Footprint—Student Activity Kit

Students analyze their personal carbon footprint data from utility bills, modes of transportation and everyday activities and graph the relative contributions to explore meaningful ways to reduce emissions.
AP7322—\$10.75



GREEN™ Low Cost Water Monitoring Kit

Introduce students to water quality monitoring using a nonhazardous tablet method to test water samples for biochemical oxygen demand, coliform bacteria, nitrate, pH, phosphate and turbidity and more.
AP5290—\$45.05



Season Creep—IMSA Unit Kit

Students simulate an ecosystem with two species of flowers and two species of pollinating hummingbirds. As the flowering and feeding cycles drift apart over time, students quantify the effects of season creep.
AP9982—\$20.55



Earth Science

The Earth is all around us, so engage students in hands-on kits that put the science of our world at their fingertips.



Weather Events—Activity-Stations Kit
 Students learn about the science behind common weather events—tornado formation, Fujita and EF scales, relative humidity and dew point and cloud and snow formation—with five mini lab activities.
AP7267—\$71.10



Sling Psychrometer—Classroom Set
 Quickly determine dew point and relative humidity with the wet-bulb/dry-bulb technique. Includes two thermometers mounted on stiff vinyl backing, wet-bulb sleeve, sling handle and mounting screw.
FB1582—\$105.00



Investigating Plate Tectonics Lab Activity
 Students analyze fossil similarities among the continents then compare today's continental arrangement with that of 100, 200 and 300 million years ago as they engage with the theories of continental drift and evolution.
AP5105—\$40.50



Exploring Earthquakes—Activity-Stations Kit
 With four mini lab stations on modeling faults, elastic rebound, seismic waves and resonance and earthquake damage, students explore the causes of earthquakes, the unpredictability and impact of the effects.
AP7406—\$57.25



Coriolis Effect Apparatus
 Students observe the Coriolis effect with this 14"-diameter revolving turntable and steel ball. As it mimics the Earth's rotation, make observations about its influence on atmospheric circulation.
AP5113—\$47.90



Be a Mineral Detective—Student Laboratory Kit
 Given eight mineral unknowns, students identify each by gathering evidence with tests, including light interaction, streak, mineral hardness, cleavage, smell, ice and solubility.
AP5949—\$89.70



Chemical and Mechanical Weathering of Rock—Student Laboratory Kit
 Students experiment and observe how mechanical weathering, geological and glacial changes, ice expansion, chemical weathering, oxidation and organic processes affect the rock specimens provided.
AP7035—\$90.15



Density of the Earth—Student Laboratory Kit
 Students use water displacement to make small scale measurements about the density of rocks. Averaging and comparing the results, students see how the density and mass of the Earth are calculated.
AP6738—\$74.60



Rock Formation and Identification—Student Laboratory Kit
 Students conduct hands-on experiments on 68 rock specimens, observing the distinct characteristics of each type of rock and learning about the importance of the rock cycle.
AP7030—\$126.00



Flinn STEM Design Challenge™

When Engineering Activates Scientific Inquiry

Flinn has been developing hands-on kits and activities in each of the domains of science for more than 40 years. Our exclusive Flinn STEM Design Challenge™ kits can be effectively integrated into your existing curriculum, adding rich, inquiry-based instruction. With these kits, students apply conceptual knowledge and reasoning skills as they engage in hands-on activity.

Beyond their use in the classroom, these engineering design activities inspire scientific inquiry in an extracurricular STEM club or STEM event night, an after-school enrichment activity and much more.

A. Solar-Powered Cars—Flinn STEM Design Challenge™

Students build cars that convert the Sun's energy to electricity. After building a prototype, students investigate variables and their effect on the car's performance then create an optimal design solution for the fastest car.

AP8049—\$161.00

B. Flinn STEM Design Challenge™ Lab Manual

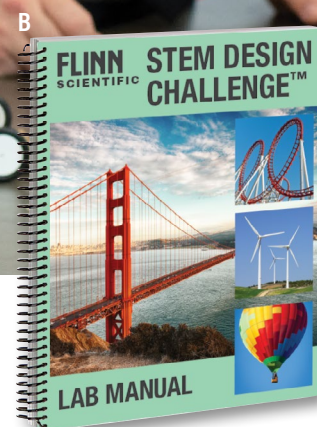
Integrate STEM into your existing curriculum with a manual describing all 22 Flinn STEM Design Challenge™ activities. Incorporate inquiry and design as students connect science and engineering practices to conceptual knowledge and reasoning skills across science disciplines.

AP8333—\$130.00

Physical Science—Flinn STEM Design Challenge™—9-Kit Bundle

Bring engineering design into your physical science classroom and save with this 9-kit bundle. The bundle includes experiments that address an array of topics, including projectile motion, levers, conservation of energy, equilibrium and balance, aerodynamics, structure building, gravity and impact forces, air resistance, friction and even cost-effective toymaking.

AP8084—\$406.00



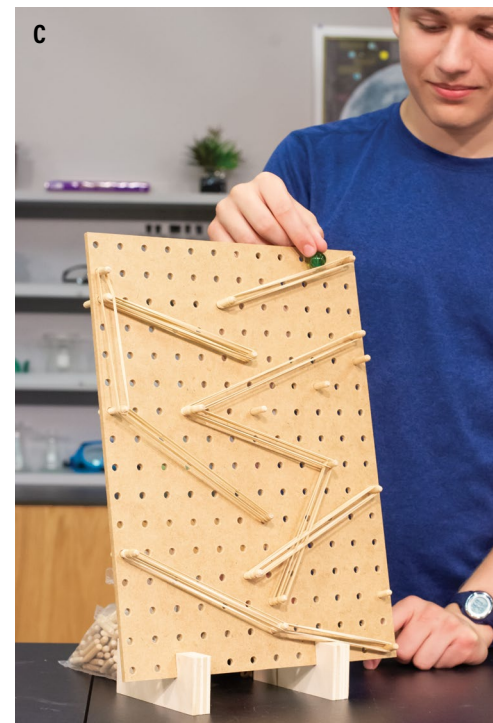
The ABCs of STEM Learning

A. Integrate science, technology, engineering and math concepts into practical steps students can follow and connect to the real world.

B. Engage students in questioning that challenges their thinking and encourages them to make decisions.

C. Activate student learning by providing hands-on experiences that can be tested and redesigned.

GET THE COMPLETE PACKAGE!



C. Marble Down—Flinn STEM Design Challenge™

Familiarize students with engineering design as they investigate the effect of variables on the marble's speed along a rubber band track and attempt to build a marble maze with the longest run time.

AP8315—\$77.95

D. Beaks—Flinn STEM Design Challenge™

Students use predetermined beak designs and one they design to discover which perform better with a variety of different food sources and changing environmental conditions.

FB2130—\$85.85

E. Roller Coasters—Flinn STEM Design Challenge™

Students determine how changing release height and ball mass affect distance traveled then apply that knowledge as they design a roller coaster with specific criteria and constraints.

AP8055—\$68.35

Oil Spill Containment—Flinn STEM Design Challenge™

Students learn how oil spills are contained and remediated then practice small-scale options and design a method for larger volumes to minimize ecosystem contamination.

AP8329—\$49.90

Landfills—Flinn STEM Design Challenge™

Students tackle waste management, constructing a basic landfill to understand the function then designing their own landfill that prevents contamination of the surrounding environment.

AP8319—\$83.55

Generating Electricity with Wind—Flinn STEM Design Challenge™

Capture wind energy and convert it to electricity! Investigate how the blade design of a wind turbine affects the amount of power it generates, first building a rotor and blade assembly then enhancing their designs for the best electrical output.

AP8051—\$50.40



Find the best options for challenging STEM activities that encourage engineering design at
www.flinnsci.com/stem.



What Will You Make?

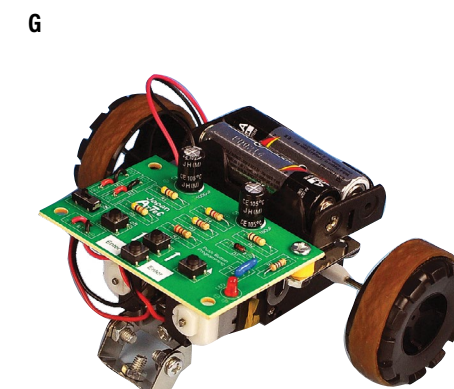
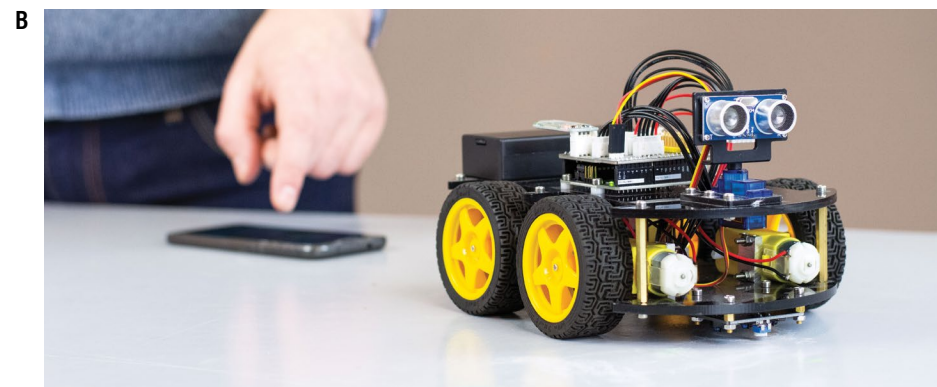
Whether you are a science teacher, CTE educator or library/media center manager, your makerspace can be a place for creative, collaborative learning—where people share ideas, experiences and knowledge to create new projects.

Make your space unique to the population it will serve, but consider the following ideas as your makerspace develops:

- 1. Establish Rules of Engagement**—Creating operational guidelines is essential for a safe, productive and fun makerspace. Enforce classroom management in this environment just as you would your classroom.
- 2. Makerspace Activities Solve Problems**—Students build, rebuild and test prototypes as they engage in authentic inquiry and become motivated to find solutions to issues that arise as they develop their designs. As they turn up their creativity, they use everything around them as a learning opportunity.
- 3. Makers Are Entrepreneurs**—The makerspace movement is about encouraging students to make anything. Prepare to be surprised by what your students can do and how it drives their creative and entrepreneurial sensibilities.
- 4. Collaboration Is King**—Working with neighboring departments can bring additional expertise and safety to the projects your students want to do. Industrial arts can give guidance on soldering, cutting and 3D printing; art and music can add a performance element; and computers can bring a layer of media.
- 5. Making a Culture of Safety**—As your makerspace develops and grows, so should safety. Keep at the forefront occupancy maximums, storage space and securing hazardous items to ensure your students' safety.

For more tips on safety, check out *Safer Makerspaces, Fab Labs, and STEM Labs: A Collaborative Guide*, by Kenneth Russell Roy, PhD, and Tyler S. Love, PhD, or visit www.flinnsci.com/safety.

AP9964—\$51.30



A. Makey Makey Classic Kit

Turn everyday objects into computer keys. With projects like a simple banana piano to automatic cat selfies, this critically acclaimed kit offers thousands of possibilities.

AP9706—\$51.95

B. Robotic Smart Car

This easy-to-assemble kit uses an Arduino Uno R3 to control the car. With four operation modes, users can reprogram the car and add additional modules to customize its performance.

AP9874—\$82.35

C. Amusement Park Experience

Students become theme-park engineers, building and experimenting with real-world amusement park rides while gaining a better understanding of Newton's laws, gear ratios, pendulums and momentum.

AP6983—\$304.00

D. Arduino Starter Kits

Start coding with these starter kits from Elegoo. Each comes with an Arduino Uno R3 or MEGA 2560, an instruction manual, a breadboard and a large selection of components in a convenient container.

AP9875—Super—\$41.15

AP9876—Complete—\$61.75

AP9877—Mega Complete—\$72.05

E. Arduino Nano V3.0 Boards

Arduino Nano boards are perfect for when you stop prototyping and start making. The small size conserves space, and they connect to your computer through a mini USB cable. Package of 3.

AP9871—\$15.40

F. Robotics Advanced

Build a robotic rover vehicle, surveillance stations, alarm centers and more! A camera records images while the controller has a color touch display, micro SD card slot, eight digital inputs four high-speed numerical inputs.

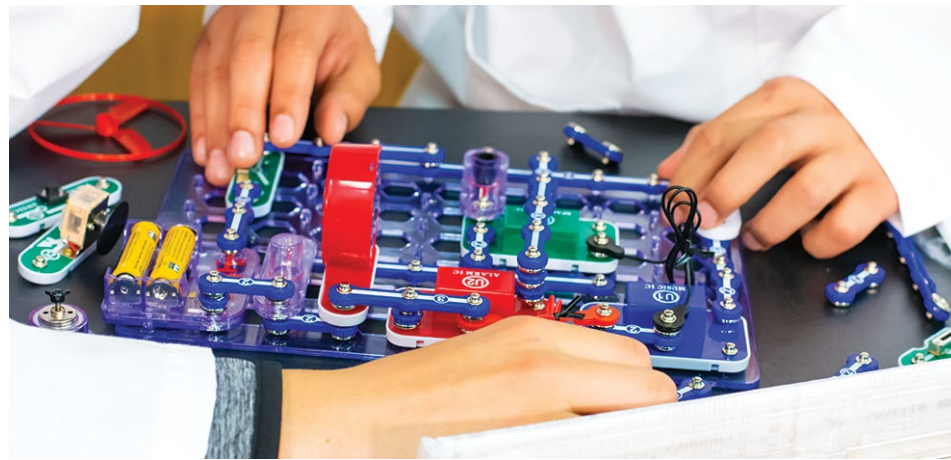
AP8198—\$630.00

G. Robot, Push-Button Programmable

Assemble and program a robot to move in complex patterns. Learn about the mechanical components and program up to 360 commands for the robot to follow.

AP7844—\$38.30

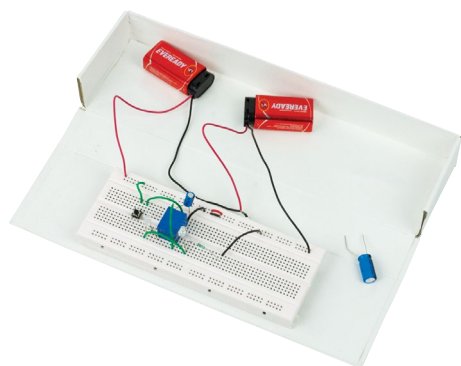
Fill your makerspace with options for your many student innovators. Start with a search for Makerspace at www.flinnsci.com.



Snap Circuits®

With these components, students can design more than 300 electronic devices. Durable plastic modules easily clip together and mount on the plastic "circuit" board—no addition tools or soldering are required. All the components and instruction diagrams are color-coded so building is a snap!

AP6531—\$78.70



Mand Labs™ STEM Electronics Kits

Learn about circuits and electronics with these exciting kits. Each pack has components for completing guided experiments, reference books and online access to video tutorials. Two versions available.

AP10000—Standard—\$153.00
AP10001—Premium—\$205.00

Little Bits™ STEAM Student Set

With more than 16 hours of lessons, this kit includes 8 engaging challenges, a student invention guide, online teacher's guide, 19 Bits and 38 accessories. All incorporate NGSS & Common Core.

TC1624—\$312.00



Snap Circuits® Extreme

Comprehensive set includes more than 80 pieces that snap together on a special grid to create circuits with different functionality and purposes. Includes instruction manuals with diagrams for 692 projects. Software allows students to "see" the electrical signals in circuits.

AP7830—\$150.65



Discovering STEM—Newton's Laws

Explore Newton's laws of motion by building 8 working models, including a ballistic catapult, gravity fan and collision car. Booklet includes building instructions and detailed explanations of scientific principles.

AP10540—\$37.05



Circuit Scribe Kits

Quickly and easily draw your own circuits using a conductive silver pen. A steel sheet combined with magnetic components makes it easy to assemble a circuit so you can build, make, learn and prototype! Several kit sizes are available, all with an inventor's notebook of circuit drawing projects.

AP9693—Basic Kit—\$46.75
AP10650—Everything Classroom Kit—\$2,575.00

Visit www.flinnsci.com to see more Snap Circuits®, Circuit Scribe, littleBits™ and more kits for your makerspace.



Ion: A Compound Building Game
 Players select an atom or ion card to collect and score points each round for completing neutral compounds and special objectives. 2-7 players.
AP10534—\$20.55

Game On! Level Up Learning with STEM Games

The right game-based learning tools engage and excite students in STEM. Among their many benefits, games encourage problem solving, help students make courageous decisions and facilitate a growth mindset—qualities that they will need for STEM-based careers and life. Give your students opportunities to engage in games that integrate science, technology, engineering and mathematics.

A. Micro Mole Rockets—Hydrogen and Oxygen Mole Ratios—Student Laboratory Kit

Students learn about stoichiometry and limiting reagents as they compete to beat records for the distance traveled by a micro mole rocket. Students use a mixture to launch the rocket! Pair the rockets with the Fuel Cell Football Apparatus to make a “chemical field goal!”

AP6374—Micro Mole Rockets—\$33.95
AP7310—Fuel Cell Football Apparatus—\$60.10

B. Metric-ominoes Game

Learn and reinforce metric prefixes and their numerical values in a game that plays like classic dominoes. Plays are made by matching a prefix on one domino and its correct numerical value on another.

AP6610—\$23.85

C. Habitat Hold ‘Em—Super Value Game

Students use a deck of “creature cards” and follow the rules of Texas Hold ‘Em to learn more about “who eats whom” in a habitat. Students then analyze the resulting food chains and form food webs.

FB1805—\$41.65

D. Weather Map Symbol Bingo—Super Value Game

Students learn the symbols that represent wind, air pressure, precipitation, cloud cover and more on weather maps. Use bingo to help students learn and review the symbols as they study weather forecasting.

AP7349—\$30.45

E. Make a Wire Maze Game—Flinn STEM Design Challenge™

After studying open and closed circuits, students create a successful wire maze game that meets specific design criteria and puts their hand-eye coordination to the test.

AP7992—\$67.10

F. Golf Ball Design—Chemistry of Sports—Student Laboratory Kit

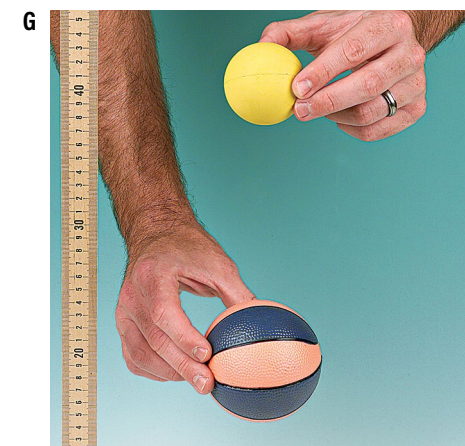
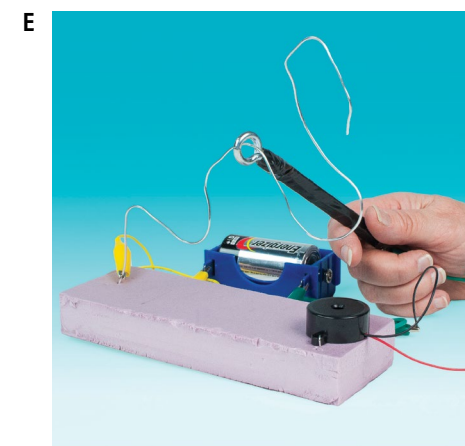
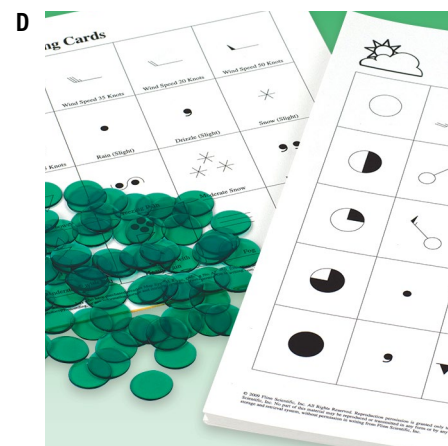
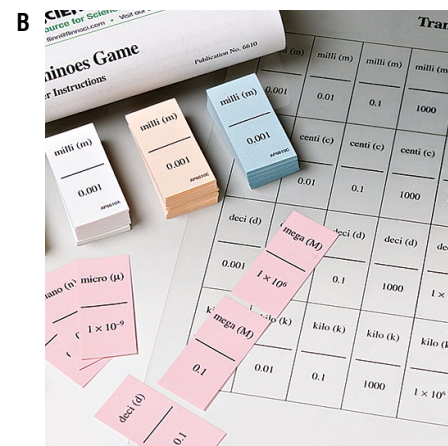
Honing experimental design and polymer synthesis skills, students design the best inner core of a golf ball by varying the composition of a reaction mixture to take advantage of polymer chemistry principles.

AP8499—\$41.75

G. Basketball Blaster—Student Laboratory Kit

Students perform a double-ball drop with various ball combinations to determine which arrangement creates the best “basketball blaster” as they identify key variables, such as compression and mass.

AP6915—\$57.55



*It's all fun and games...
 or it should be,
 so check out more
 fantastic learning games
 and sports-themed kits at
www.flinnsci.com.*



STEM Lab Essentials

STEM labs encourage design projects that integrate the four fields the acronym represents: science, technology, engineering and math. Here are a few considerations to keep in mind if you're developing a STEM lab.

STEM Lab Tips

- Space**—Allow room in your lab for building, testing and collaborating.
- Tools**—Stock basic science and technology supplies that encourage exploration and testing.
- Internet**—Provide opportunities for things like 3D printing, access to programming, media editing, etc.
- VR**—Find programs and experiments with which students can experience virtual reality.
- Materials**—Supply wood, gadgets, wood sticks, cloth, pipe cleaners and other craft materials for creative construction.
- Projects**—Offer coding and electronics kits or engineering design applications that facilitate extended opportunities for iterative design.
- Printing**—Make standard three-dimensional printing available to support the iterative design process.
- Challenges**—Include inquiry-based projects that support core curricula. Flinn STEM Design Challenge™ kits use basic materials to foster integrated STEM learning.
- Safety**—Make sure your lab contains the proper personal protective equipment, safety instructions and equipment. Learn more at www.flinnsci.com/ms.
- Inspiration**—Create STEM career consciousness by displaying models, conducting demonstrations or hanging posters. Consider the *A Career in STEM Is a Bright Idea* poster, downloadable at www.flinnsci.com/stem. See the poster on page 24.



Afinia 3D Printers

Start 3D printing immediately. Shipped fully assembled and ready to use and with all the materials you need. A HEPA air filtration system reduces 3D printing air emissions for a safer environment.

WAP-P3—H400+—\$770.00
WAP-P4—H+1—\$2,160.00

Emblaser 2 Laser Cutter and Engraver

This safe, hassle-free laser cutter and engraver offers camera-assisted alignment that aids the transition from digital design to physical reality. The class 1 laser cuts, marks and engraves a variety of materials.

AP9914—\$2,985.00

Robo E3 3D Printer

With built-in WiFi and color LCD touchscreen plus compatibility with a wide range of devices, this printer features onboard slicing software, removable heated print bed and filament run-out detection.

AP10007—\$1,595.00

ABS Premium Filament, 2-Packs

Certified for use with the Afinia H-Series of 3D printers, these high-performance filaments are designed to maximize output quality. Available in packs of black, blue, green, red, white and yellow.

6 options available—\$51.50

PLA Filament

Safe for all ages, easy to use and nontoxic, these filaments work on heated and unheated print beds. Available in black, blue, red and white. Filament diameter: 1.75 mm. 1 kg spool.

4 options available—\$20.60

PLA Specialty Filament

Certified for use with the Afinia H-Series of 3D printers, these high-performance filaments maximize output quality. Available in aluminum, copper and wood. Spool size varies.

3 options available—\$16.45–\$26.75

A. 3Doodler® Create Bundle Box

The world's first and best-selling 3D printing pen, it extrudes heated plastic that cools almost instantly into a solid, stable structure. Compact and easy to use, the bundle includes a design book and filament.

AP10092—\$155.00

B. 3Doodler® Jet Pack™

This portable battery pack for the 3Doodler® pen lets you take creativity on the go, with up to two hours of doodling with ABS plastic and three hours with PLA. Recharge time is only three hours.

AP9426—\$46.75

Scroll Saw

Scroll saw operates at 5.5 A, 120 V. It features a bladerunner, T-shank blade for precise cuts.

AP9857—\$192.00

Bench Drill Press

This bench drill press has an overall height of 23", overall width of 11" and an 8" swing. 120 V/60 Hz. Features five speeds.

AP9856—\$260.00

Digital Soldering Station, Temperature Controlled

Station includes a 48 W soldering iron that can achieve temperatures as high as 480 °C. Easy-to-read digital display makes it simple to select and maintain a desired working temperature within 5 °C.

AP9820—\$90.15

Glue Gun

Lever-action, dual temperature glue gun is easy to handle and works great for wood, plastic, ceramics, fabrics, paper and metals. Handy for microscale equipment. Uses ½" glue sticks.

AP9011—Glue Gun—\$22.30
AP9012—Glue Sticks, Pkg. of 24—\$8.50

A



B



Look for more 3D printing equipment and accessories at www.flinnsci.com.

A. VR Headset

This headset connects to a smartphone and projects 3D images before your eyes, putting you right inside the virtual experience.

AP9886—\$11.35



B. Student Timers

Simple three-key operation and display showing hours, minutes, seconds and 1/100 of seconds. Features automatic shutoff. Box of 12.

AP6396—\$95.95



C. Multimeter, Student

Economically priced, compact, all-purpose multimeter is perfect for student classroom use. Comes with battery and test leads.

AP4639—\$38.75



D. Multi-Angle Bench Vice

Overall length of 12" with jaw width of 2 7/8" and 360-degree swivel angle. Tilts horizontal to vertical with removable jaw pads.

AP9855—\$42.95



E. Hammer, Soft/Hard

Versatile tool features hard and soft heads in red and yellow. Head length of 3 7/8" with a 1" diameter.

AP9848—\$26.85



F. Solar Furnace

Astound students with the extreme temperatures and rate of increase achieved with this solar furnace. Boil liquids or melt materials.

AP5108—\$131.00



G. Alkaline Batteries

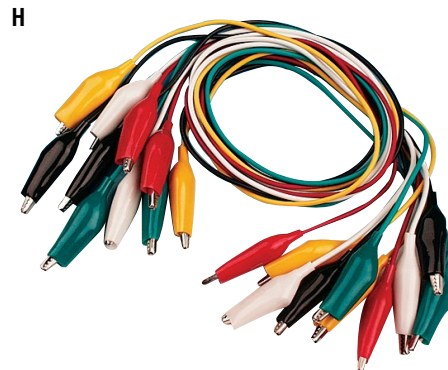
General purpose alkaline batteries last 10 times longer than acidic batteries. Available in AAA, AA, C, D, 6 V and 9 V.

6 sizes available—\$2.05-10.05

H. Alligator Cords

Versatile connector cords have alligator clips on both ends with safety protective sleeves. Set of 10 in 5 colors; 18" long.

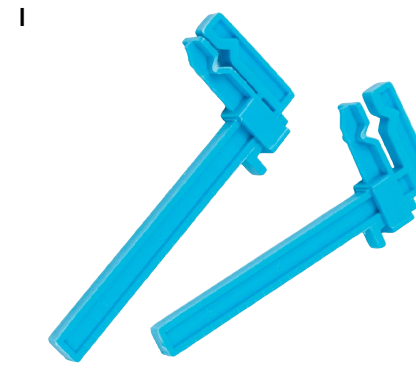
AP6052—\$10.70



I. Mini Plastic Clamps, 3"

Set of 2 lightweight plastic clamps with fixed and adjustable jaws. Slide adjustable jaw up and press tapered locking wedge to hold.

AP9829—\$15.35



G



Look ahead to the future of innovation and engineering when your students are equipped for STEM adventures. See more products at www.flinnsci.com/stem.



LabQuest® 2 Interface

Use as a standalone device to collect and analyze data or stream data wirelessly to tablets, Chromebooks and phones or via USB to a computer equipped with Logger Pro.

TC1561—\$348.00



Compact Thermal Infrared Camera, FLIR C2

Use this fun and compact thermal infrared camera to bring concepts around the light spectrum, both the visible spectrum and infrared, to life. Nylon case is available separately.

AP9998—\$515.00

AP10016—Nylon Case—\$42.60



Structures and Materials Tester

Load and displacement sensors allow students to evaluate properties of materials, including stress and strain. This machine can record maximum breaking loads as well as load displacement.

TC1594—\$1,130.00



Augmented Reality Sandbox

Shape real sand augmented in real time by an elevation color map, topographic contour lines and simulated water and lava to teach geographic, geologic and hydrologic concepts.

AP9564—\$8,335.00

FlinnSTEM™ powered by IMSA Fusion

Professional Development & Curriculum in One

Ignite Student Interest in STEM

IMSA Fusion was developed by the nationally acclaimed Illinois Mathematics and Science Academy (IMSA) to prepare young students for advanced thinking and engaged learning. FlinnSTEM™ gives you everything you need to help students explore, connect and discover integrated learning across science, technology, engineering and mathematics.

Built-in Professional Development

Research suggests that teachers need more opportunities to gain content knowledge. FlinnSTEM™ delivers with robust teacher professional development thoughtfully embedded into a student-centered STEM curriculum program. Teachers are provided with great digital content, including background information, suggested inquiry approaches, point-of-use professional development videos, writable student activities and debrief questions.

Early Foundational Learning

Because many students in upper elementary through middle school begin losing interest in science and mathematics, FlinnSTEM™ was designed to maintain or increase student interest, involvement and literacy. Beyond offering educationally rich and relatable content, the FlinnSTEM™ curriculum modules provide learning experiences that focus on helping students “learn how to learn” by emphasizing logical, mathematical and experimental scientific thinking as they engage with the topics and problem-solving challenges.

Adaptable to Your Needs

FlinnSTEM™ powered by IMSA Fusion is adaptable to fit any learning environment. In the regular classroom, you can embed it into daily instruction and existing curriculum. FlinnSTEM™ also is great for after-school enrichment programs and STEM-focused clubs. The units also provide content knowledge and hands-on experiences for student-driven projects in a makerspace.

Discover how FlinnSTEM™ can help you build a passion for STEM in your students.

This engaging STEM curriculum is completely adaptable, making it perfect for the general classroom, after-school enrichment and makerspace learning. Plus, each module contains all the materials you need to begin teach activities immediately, saving you time and money.



Inquiry-Based Modules With Hands-On Materials

With the development of our all-new module, Organized Sound: STEM in Music, we now offer 15 unique STEM topics guaranteed to spark your students' imagination. Available as full modules with 32 hours of curriculum or as single units and all include a 1-year license for access to the professional development videos and digital content.

Try a Unit!

We know that diving into a full module can be intimidating, so we've provided stand-alone unit kits that offer a stress-free first step into the world of STEM. Fantastic additions to your current lesson plans, the FlinnSTEM™ Unit Kits are self-contained units that allow you to try one lesson that you can fit within a larger theme of STEM concepts when you are ready for more.



Learn More Online

FLINNSTEM™

Visit www.FlinnSTEM.com for detailed product information and to try a FREE unit or digital lab today.



Email an Account Representative

Our account representatives can help you find the best solution to fit your classroom's needs. Email myaccountrep@flinnsci.com, and a regional account representative will follow up with you.



Talk to a Scientist

Have a question on how to implement FlinnSTEM™ in your classroom? Our scientists are available to help! Call **800-452-1261** to set up a 1-on-1 training session.

WhiteBox Learning®

Empower Students to Work Like Real Engineers!

Design... Then Build!

WhiteBox Learning® plunges students into the work of real engineers. Using CAD-inspired engineering software and the companion hands-on kits, students are immersed into the informed iteration learning process. Key science and engineering concepts are mastered as students design, simulate and analyze their designs—hundreds of times if they'd like—from a web browser before bringing their designs to life with a constructed physical model.

Complete STEM Learning for Students

All four letters of STEM are fused together in this one fully integrated curriculum. WhiteBox Learning offers standards-based science, math and engineering content, 3D design and analysis tools, a game-like simulation (test) and all the custom plans necessary to build a physical model of the optimized design. WhiteBox Learning Kits provide students with the physical materials they need to bring their designs to life, while you benefit from the easiest, most comprehensive solution for completing your students' engineering experience.

Powerful Analytical Tools for Teachers

The Teacher Control Center (TCC) provides you with 24/7 web access to a powerful suite of management and monitoring tools. Set up classes and applications and adjust the content based on the varied learning needs of your students. The TCC reports a variety of real-time, actionable metrics that include time on task, quiz and worksheet scores and overall student and class progress and performance.

Explore Our Line of Fully Integrated STEM Units:



♥ "I have never had any other curriculum that was as complete a package as the WhiteBox System... It is by far the best thing I have ever put in my classroom. Plus, the kids absolutely love it!"

ROCKY SHEPHERD
MIDDLE SCHOOL STEM TEACHER

Get the right tools to give students the confidence they need.

The complete WhiteBox Learning® experience makes it easy to guide students from virtual application to hands-on design.

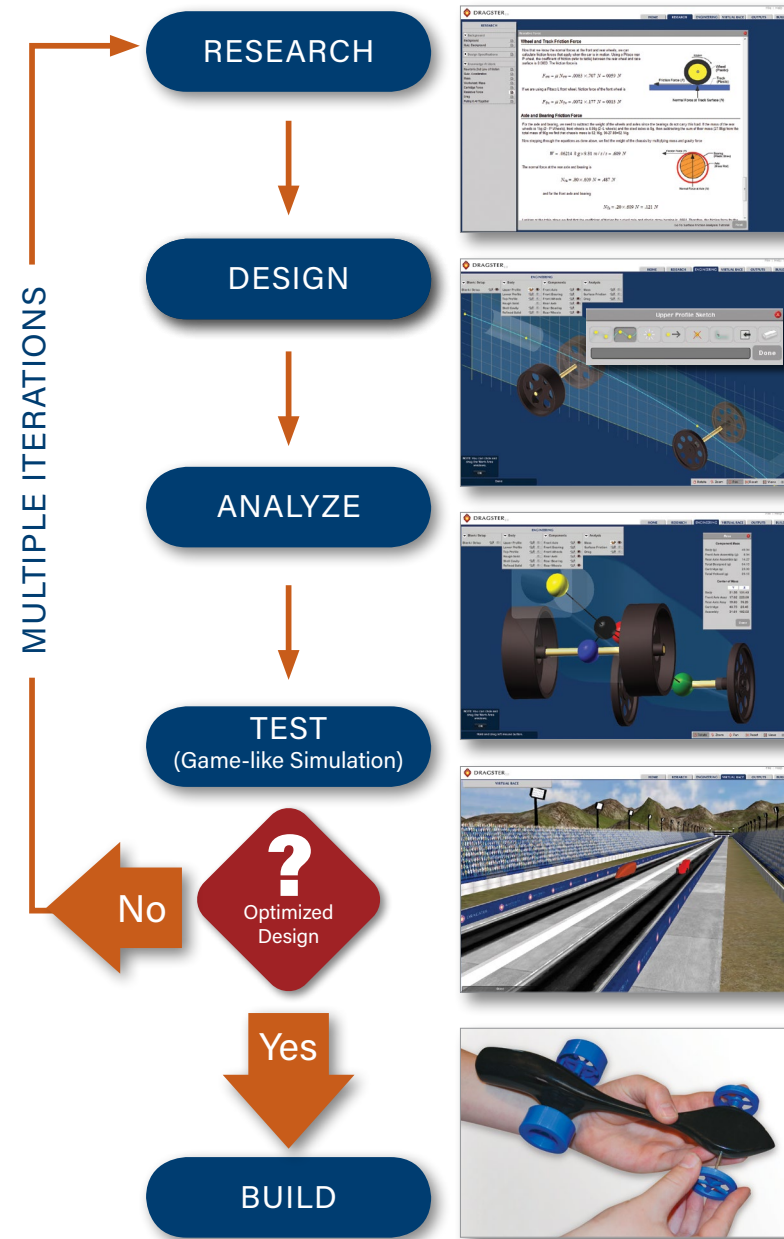
Game mode (available with select units) helps you get and keep even the most reluctant of students engaged.

Our robust teacher's console lets you monitor student progress and gain insight into their thought processes as they work through design iterations.

How it Works

Integrating 3D design and analysis tools, game-like simulation and all the custom plans and materials necessary to build a physical model, WhiteBox Learning® promotes critical and higher order thinking. Students are empowered with the tools and information necessary to ask and answer their own questions about their designs in a unique and effective cycle called "informed iteration." A familiar interface guides students through the phases of engineering design and scientific inquiry:

INFORMED ITERATION PROCESS



Research—Study the principles of engineering design and problem solving, theory-based content, quizzes, worksheets and tutorials.

Design—Engage in virtual design through teacher-assigned design specifications, background, rules of the challenge and knowledge at work.

Analyze—Students focus on the task at hand and increase their knowledge in STEM through a unique online design tool.

Test—Analysis through game-like simulation is used for classroom or districtwide competition!

Build—Students construct physical models from the results of their data about the optimized virtual design.

INTRODUCING WhiteBox Nationals

Encourage Authentic Research and Development

WhiteBox Nationals is an exciting new way for students to interact with the WhiteBox Learning STEM applications. Using game-like features, students compete at a national level within a predetermined set of requirements. Hardworking students will qualify for a national competition based on their total design performance scores.

Engage in 5 Levels of Competition

In WhiteBox Nationals, individual students automatically move through five increasingly challenging levels of competition. To move up in level, students must meet or exceed required level scores based on quiz and worksheet results, number of design iterations and design performance.

Inspire Continuous Improvement

More advanced students automatically will move into new competitions against similarly accomplished students from other districts, states and even countries. When students advance, they are removed from previous level of competitions. This means that students who otherwise would not make the leader board ultimately will move into these positions. Not all students will make it to the most advanced levels, but we believe that all students will experience a greater sense of accomplishment.



WHITEBOX LEARNING
A Flinn Scientific Company



Learn More Online

Visit www.whiteboxlearning.com for detailed product information and to get a FREE trial today.



Email an Account Representative

Our account representatives can help you find the best solution to fit your classroom's needs. Email myaccountrep@flinnsci.com, and a regional account representative will follow up with you.



Talk to an Expert

Have a question on how to implement WhiteBox Learning® Our scientists are available to help! Call **800-452-1261** to set up a 1-on-1 training session.



Implementing POGIL®

Getting Started & Role Cards

POGIL® Implementation Guide

Full of helpful tips for running a successful POGIL® lesson, this digital guide is available for purchase and download at www.flinnsci.com. With POGIL, students work on carefully crafted guided inquiry activities that are scaffolded to help students master content and develop life and learning skills. Use this guide and POGIL Role Cards for clear expectations and a smooth activity.

AP10647—\$9.95

POGIL® Role Cards

These colorful role cards are for use with POGIL® activities. Each set contains cards for seven groups of four students bearing the roles of manager, presenter, recorder and reflector. The cards present clear expectations to help students perform in each role as they construct their own learning.

AP9841—\$10.25



Explore Learner-Centered Teaching with POGIL®



The POGIL Approach:

Process Oriented Guided Inquiry Learning

POGIL® (Process Oriented Guided Inquiry Learning) is a student-centered instructional approach in which students work in small teams with the instructor acting only as a facilitator.

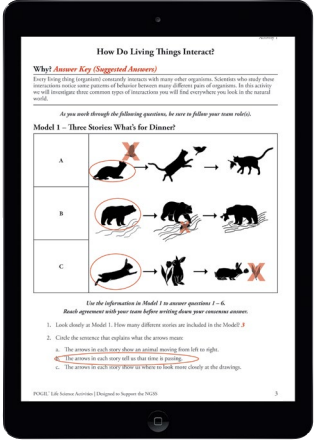
The specially designed activities follow a learning cycle paradigm in which students are presented with data or information to interpret and guiding questions to lead them toward valid conclusions—essentially a recapitulation of the scientific method.

Students develop content mastery by constructing their own understanding while developing and improving important learning skills, such as information processing, communication, critical thinking, problem solving and metacognition and assessment.

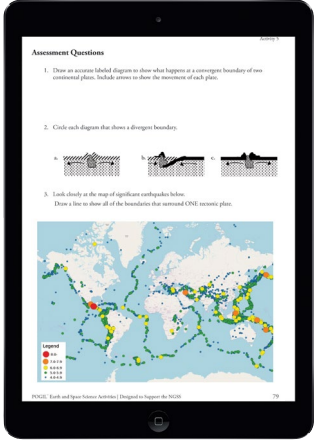
The POGIL approach has two broad aims:

- Develop content mastery through student self-construction of their understanding.
- Develop and improve important learning skills that are useful across the curriculum.

With POGIL activities, self-managed teams explore on their own to construct understanding as the instructor acts only as a guiding facilitator and not a source of information. As they explore, the discipline content facilitates the development higher level thinking and the ability to learn and to apply knowledge in new contexts. This inquiry-based team environment energizes students and provides instructors with constant feedback about what students understand and misunderstand.



POGIL® Activities for Life Science (FB2324)



POGIL® Activities for Earth and Space Science (AP10094)



Introducing POGIL® Digital Books

Perfect for Middle School Learning

Designed to support NGSS, POGIL® Activities for Life Science and POGIL® Activities for Earth and Space Science Digital Books are now available! Science Digital Books are now available!

Visit www.flinnsci.com/POGIL for FREE POGIL activities and to shop our entire POGIL assortment, including POGIL role cards (AP9841) and the POGIL Implementation Guide (AP10647).



NewPath Learning®

Guiding Students to Success

NewPath Learning® offers research-based, hands-on print and interactive digital learning resources developed by master educators and classroom tested by students.

NewPath's learning resources are ideally suited for in-class or at-home use as well as academic intervention and enrichment and have been shown to increase student performance. Products include an array of proprietary Curriculum Mastery® Games, flip charts, visual learning guides, study cards and more—all supplemented with an online learning program. Leveled by grade and designed for easy customization, these resources are aligned to state and national standards across the curriculum for grades K-12.

NewPath Science Learning Centers

Designed for either teacher-directed instruction or independent use by groups of 2-4 students, Science Learning Centers offer a Curriculum Mastery® Game featuring one set of 30 illustrated question cards on this key curriculum concept, one laminated game board and game materials for the classroom, after-school programs or at-home practice, review and test prep!

Various options available—\$20.75

Search NewPath on www.flinnsci.com to find more than 150 products.

Owl and Owl Pellet—NewPath Learning Flip Chart Set

The NewPath Owl and Owl Pellet Flip Chart Set is perfect for the classroom as well as group and independent learning. Spiral-bound in a stable, free-standing easel, the 12" x 18" charts are double sided and feature a graphical overview of skills on one side and a Write-On/Wipe-Off activity chart on the other. Includes Activity Guide with copy masters of charts and review questions.

Catalog No.	Description	Price/Each
AP10744	Owl and Owl Pellet Flip Chart Set	\$32.95

NewPath Visual Learning Guides

NewPath Visual Learning Guides provide comprehensive coverage of animal grouping. Each 11" x 17" guide includes four panels of helpful information, including an overview, practice exercises, a graphic organizer and assessment and review questions. Each laminated Write-On/Wipe-Off guide provides an engaging way to study animals. Set of 10.

Catalog No.	Description	Price/Each
AP10745	Owl Pellet Dissection & Prey Identification	\$39.95
AP10746	All About Animals	39.95
AP10939	Grouping of Animals	39.95
AP10934	Animal Growth & Reproduction	39.95
AP10748	Birds & Mammals	39.95
AP10931	Reptiles, Amphibians & Fish	39.95
AP10942	Invertebrates—Animals Without Backbones	39.95
AP10947	Vertebrates—Animals With Backbones	39.95
AP10747	All About Plants	39.95
AP10940	Grouping of Plants	39.95
AP10941	How Do Plants Grow?	39.95
AP10937	Flowers & Seeds	39.95
AP10945	Roots, Stems & Leaves	39.95
AP10943	Main Parts of Plants	39.95
AP10749	Food Chains	39.95
AP10938	Food Chains & Food Webs	39.95
AP10753	Life Cycles	39.95
AP10750	How Living Things Grow & Change	39.95
AP10944	Relationships Among Living Things	39.95
AP10752	Land Habitats	39.95
AP10932	Water Habitats	39.95
AP10933	Where Animals Live	39.95
AP10936	Cycles of Life & Biomes	39.95
AP10754	Living & Nonliving Things	39.95
AP10946	The 6 Kingdoms of Life	39.95
AP10751	Human Body	39.95
AP10755	My Senses	39.95
AP10935	The Building Blocks of Living Things	39.95

Vocabulary Builder Flash Card Sets

These provide comprehensive coverage of key general science terms in the Disciplinary Core Ideas of NGSS and state standards. Colorfully illustrated cards enable engaging activities and games that foster lasting understanding of key concepts.

Catalog No.	Description	Price/Each
AP10948	General Science, Grades 1-2	\$24.95
AP10949	General Science, Grades 3-5	24.95
AP10950	Life Science	49.95
AP10951	Earth Science	24.95
AP10952	Physical Science	24.95

NEW!





GET NERDY

Getting Nerdy® With Mel and Gerdy



For today's busy teacher, carving out time to make engaging lessons is daunting if not virtually impossible. Getting Nerdy® provides a solution for the life science curriculum.

Founded by two former middle school life science teachers with a passion for curriculum design, Getting Nerdy® is the result of their collaboration to create unique, engaging and differentiated science lessons that get students excited to learn about the natural world.

Available as instant digital downloads, the Getting Nerdy® materials are simple to implement, easy on the budget and save precious time when it comes to lesson planning or even just waiting for the curriculum to be

delivered. You will receive a single teacher license to implement fully editable PowerPoint presentations, PDFs of student pages and assessments—all correlated and ready to use to fill several days or weeks of lessons. Plus, all Getting Nerdy® lessons have been built with state and national standards standards in mind.

Several Life Science and STEAM curriculum options are available, including topic-specific interactive notebook activity packs and unit bundles, and complete curriculum bundles as well as single lab lessons and 3D paper models for alternative dissection.

Getting Nerdy® helps teachers take the time out of planning and get back to engaging with students.
See more at www.flinnsci.com.

Getting Nerdy® Science

Complete lesson bundles, interactive notebook activity packs and dissection bundles are big on hands-on instruction and take the hassle out of lesson planning. Explore the ways Getting Nerdy® facilitates engaged learning and can bring out the science nerd in your students!

Option 1: Complete Bundles

These digital, downloadable lesson bundles include everything you need to teach the topic, including a fully editable PowerPoint, PDFs of aligned notes, activities and assessments, interactive notebook activities, visual word wall cards (English-only and English/Spanish translated) and aligned task cards.

Cells: Complete Bundle	GN1005	\$76.95
Classification: Complete Bundle	GN1008	70.95
Ecology: Complete Bundle	GN1013	50.95
Evolution: Complete Bundle	GN1014	55.95
Genetics: Complete Bundle	GN1017	76.95
Human Body: Complete Bundle	GN1019	78.95
Scientific Method: Complete Bundle	GN1026	69.95

Option 2: Interactive Notebook Activity Packs

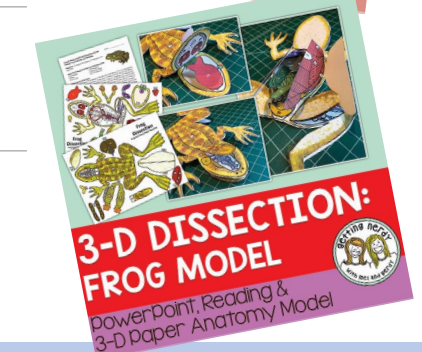
Topic-specific activity packs include PDF pages of enrichment activities and differentiated templates for ready-to-teach lesson plans. Also available is a set-up guide and a bundle of all six life science interactive notebook activity packs.

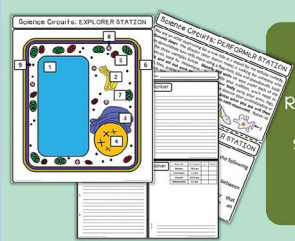
Cells: Interactive Notebook Activity Pack	GN1027	\$11.95
Classification: Interactive Notebook Activity Pack	GN1029	11.95
Ecology: Interactive Notebook Activity Pack	GN1035	11.95
Evolution: Interactive Notebook Activity Pack	GN1037	11.95
Genetics: Interactive Notebook Activity Pack	GN1039	11.95
Human Body: Interactive Notebook Activity Pack	GN1042	11.95
Scientific Method: Interactive Notebook Activity Pack	GN1044	11.95
Interactive Notebook Set-Up Guide	GN1002	11.95
Interactive Notebook Bundle for Life Science & Biology	GN1000	95.95

Option 3: Scienstructable 3D Dissection Bundles

Scienstructable 3D dissection models can be used as dissection-free explorations, predissection tools or summative assessments for comparative anatomy. Each model includes fully editable PowerPoint slides and PDFs of handouts and templates.

Scienstructable 3D Dissection: Worm Model	GN1030	\$11.95
Scienstructable 3D Dissection: Eye Model	GN1031	11.95
Scienstructable 3D Dissection: Fetal Pig Model	GN1032	19.95
Scienstructable 3D Dissection: Frog Model	GN1033	19.95






SCIENCE-BASED STATIONS THAT INTEGRATE READING, WRITING, MATH, SOCIAL STUDIES, TECHNOLOGY, ENGINEERING & THE ARTS

STEAM CIRCUITS CELLS BUNDLE

Cross-Curricular Science Stations for EVERYTHING CELLS



Getting Nerdy®: STEAM Bundles

Getting Nerdy® Science—STEAM Circuits Cells Bundle

Included in this 1-2 day lesson about cells are seven station activities, one assessment for each station, blank templates for more stations, activity directions, answer keys and student station role descriptions.

[GN1007](#)—\$29.95

Getting Nerdy® Science—Life Science: STEAM Lab Stations Bundle

These 40 student-led, print and go, low-to-no prep science circuit stations are aligned to NGSS and integrate cross-curricular practices with science as the primary subject. Topics include cell organelles and processes, ecology, scientific method, human body, genetics, evolution and classification.

[GN1021](#)—\$210.00



Dissection Options

Beyond the Pins and Scalpels

Dissection can be a fun and exciting lab experience, but it also can be intimidating and disorienting to cut into a specimen for the first time. Flinn provides several additional methods to explore the study of dissection without having to pick up preserved specimens and dissection tools.

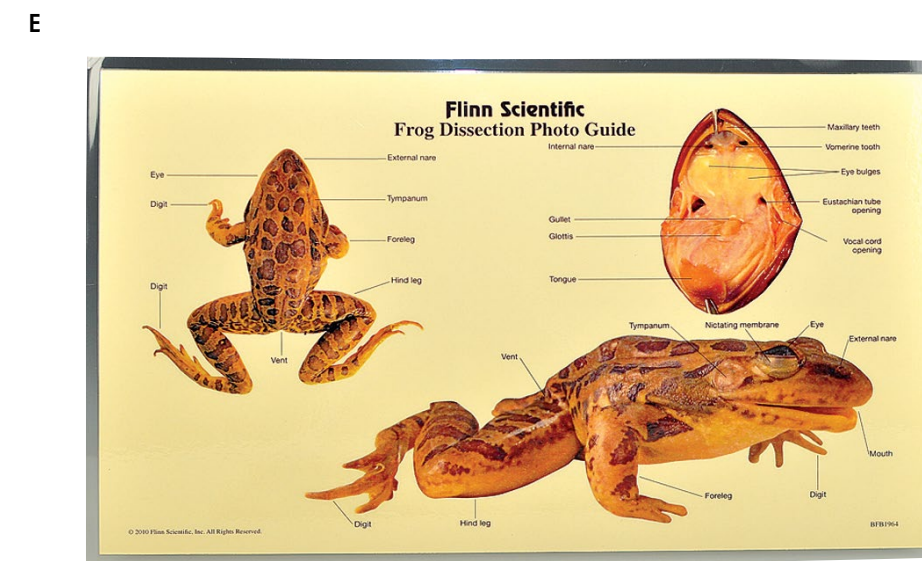
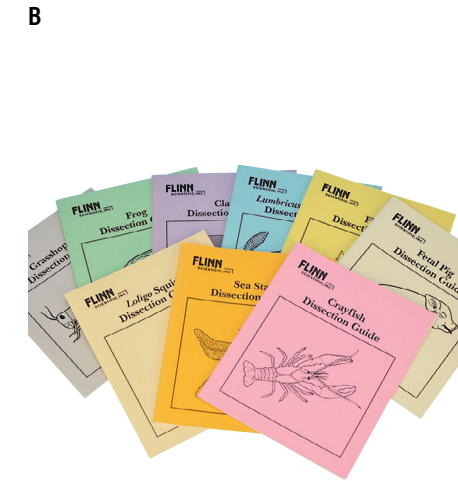
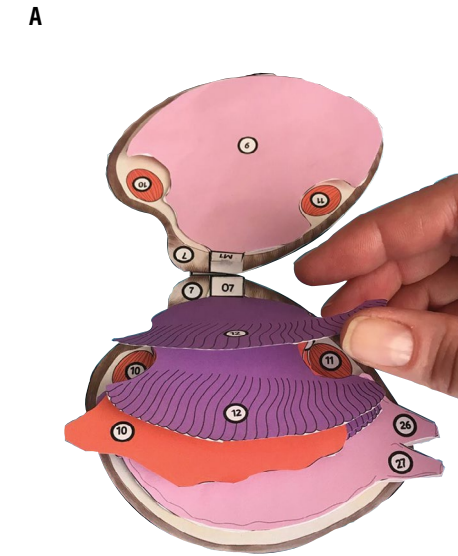
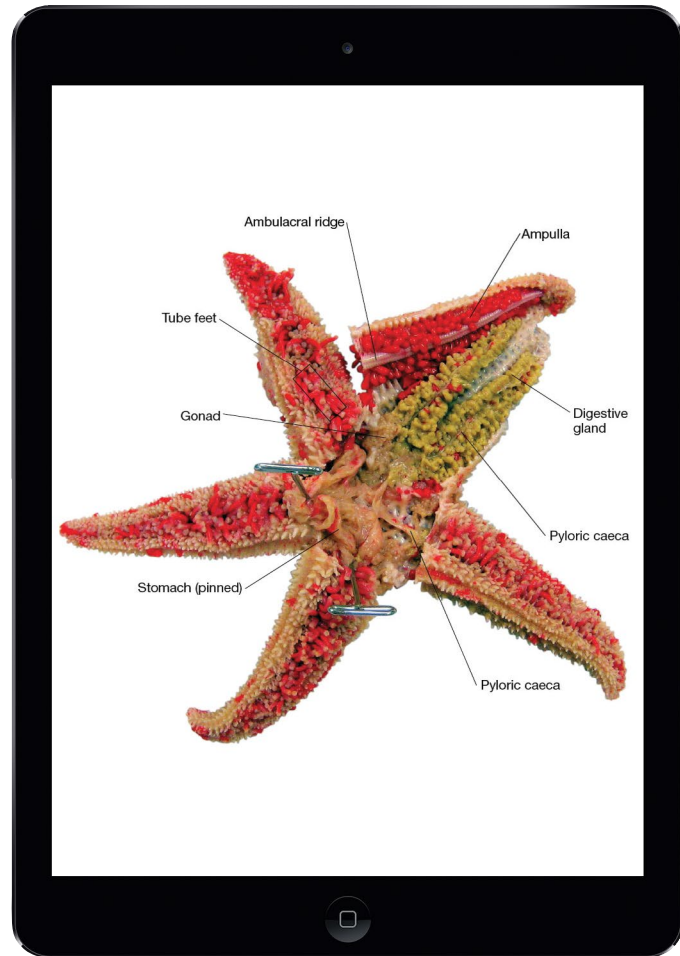
Flinn Digital Dissection Labs let students prepare for dissection, explore organisms and review what they have learned in lab all online. The engaging digital platform offers interactive drag-and-drop diagrams and video tutorials as well as built-in guidelines and step-by-step instructions that ensure students are successful and safe during lab. The digital labs also can serve as a stand-alone dissection alternative.

Flinn also offers a variety of standard and manipulatable plastic and paper models as well as cross-sectioned study aids that put anatomy in your students' hands in an enriching way.

Flinn Digital Dissection Labs

- EL7000—6-Animal Bundle—\$325.00
- EL7001—Flinn Digital Dissection Labs: Grass Frog, 1-Year Access—\$59.95
- EL7002—Flinn Digital Dissection Labs: Fetal Pig, 1-Year Access—\$59.95
- EL7003—Flinn Digital Dissection Labs: Perch, 1-Year Access—\$59.95
- EL7004—Flinn Digital Dissection Labs: Sea Star, 1-Year Access—\$59.95
- EL7005—Flinn Digital Dissection Labs: Earthworm, 1-Year Access—\$59.95
- EL7006—Flinn Digital Dissection Labs: Crayfish, 1-Year Access—\$59.95

For more alternative dissection products, visit www.flinnsci.com.



A. Getting Nerdy® Invertebrate/Vertebrate Dissection Bundles

Used as dissection-free exploration, predissection tools or summative assessments for comparative anatomy. Students learn the anatomy of each organism through guided reading, graphic organizers and dissection templates.

2 options available—\$89.95–\$110.00

B. Dissection Guides

These dissection guides allow students to compare anatomical structures across species. Simple diagrams correlate with stepwise instructions to help concrete thinkers, and helpful hints guide students to hard-to-locate organs.

Pair with Flinn's Dissection Photo Guides.

9 options available—\$22.00–\$23.10

C. 4D Vision™ Animal Anatomy Models

These 4D puzzles are a unique way to add hands-on exploration of animal anatomy to your lessons to build knowledge, dexterity and mental acuity. Includes illustrated assembly guide, anatomy description, life cycle and eating habits information as well as fun Q&As.

6 options available—\$30.15

D. Pro-Sect® Mounts

An excellent dissection alternative, these permanent mounts are sealed in transparent, safe-to-handle, liquid-filled plastic trays with all dissected components clearly visible for observation and study. Each part is labeled for easy identification using the included set of guides.

4 options available—\$134.00–\$193.00

E. Photo Dissection Guides

Brightly colored photo guides show prominent anatomical features and organs that are labeled to help students study anatomy and zoology. Use as review tools for lab practicals or assessments. 8½" x 14", laminated.

9 options available—\$23.55–\$25.10

F. Frog Dissection Model

This expertly detailed and accurately colored model of the internal structure of the frog provides an excellent reference during frog dissection. Mounted on a durable plastic base, it includes a detailed key card.

FB1674—\$177.00



Traditional Dissection

Authentic, Practical Experience

A. Laboratory Coats
13 options available—\$43.15–\$47.60

B. Latex Gloves
4 options available—\$16.30

C. Dissection Pins
4 options available—\$13.65–\$15.00

D. Dissection Instrument Case
AB1008—\$11.40

E. Dissecting Pan, Large Animal, with Flex-Pad
AB1079—\$61.80

F. Probe and Seeker
AB1042—\$3.15

G. Grass Frog, Preserved, Plain, 3–4", Large, Pkg. of 10
PM2035—\$37.15

H. Scalpels, Auto-Retractable, Package of 5
FB2083—\$22.30

I. Surgical Dissection Scissors
7 options available—\$5.45–\$6.90

J. Forceps, Specimen
AB1093—\$10.50

K. Surgical Quality Scalpel Handles
2 options available—\$5.23–\$5.36

L. Knife, Cartilage
AB1094—\$4.18

M. Teasing Needles With Plastic Handles
2 options available—\$0.44

N. Economy Dissecting Kit
AB1021—\$12.05

O. Basic Dissecting Kit
AB1019—\$12.80



Owl Pellets, Package of 50

For dissection and analysis, each owl pellet is individually wrapped and sterilized so students can construct food webs, study owl diets, predict relative prey population densities and reconstruct skeletons!

FB1469—\$174.00



Cow Eyes, Package of 5

Perfect for the detailed study of key mammalian organs, the size of the cow eye (much larger than humans) permits a much clearer view, and perhaps a better understanding, of how these vital structures work.

PM4030—\$19.30



Grass Frog Classroom Dissection Kit

Includes consumable items—10 preserved specimens, dissection trays and resealable bags—for whole class dissection as well as 10 step-by-step Flinn Scientific dissection guides for help along the way.

FB1979—\$82.45



Dissection Instruments—Classroom Set

This classroom set of high-quality instruments is packaged in a convenient tough plastic instrument-sorting tray that makes movement between classes easier and inventory faster at the end of the lab.

FB1632—\$169.00

Find everything you need
for dissection at Flinn!
See our complete selection of
dissection specimens and tools at
www.flinnsci.com.

Rockets

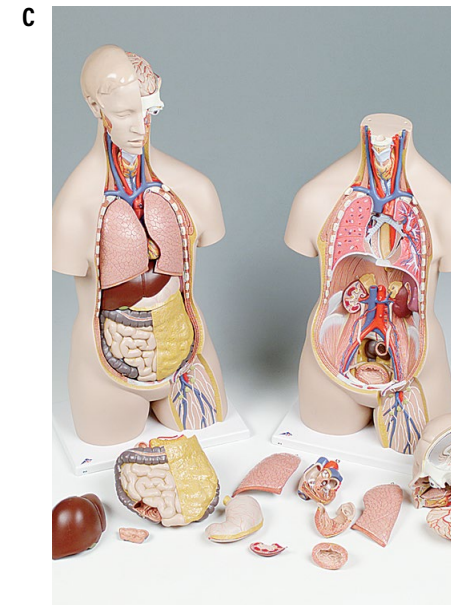
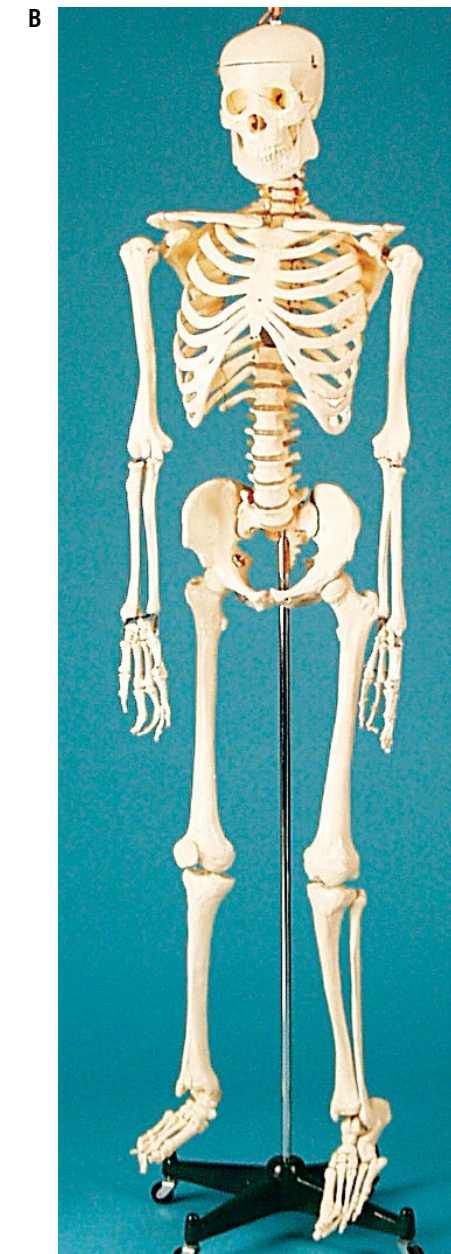
Individual rocket kits come with assembly instructions, and many are available in bulk packs of 12 for classroom. Models vary in range, style and performance aspects.

10 options available—\$11.20–\$132.00



Models

Models are great visual aids that expand understanding and help students build knowledge around important science concepts.



A. Flinn DNA Molecular Model Sets

Help students visualize the double helix with color-coded components and precise bond angles that result in a model with perfect three-dimensional orientation. Two durable sizes.

AP6317—11-Tier—\$50.20
AP6318—22-Tier—\$86.45

B. Skeleton, Economy Choice

With arms, legs and skull removable by nut-and-bolt construction, this skeleton's skull has a removable jaw, cut calvarium, suture lines and three removable teeth. 66" tall; mounted on a 16" base.

FB1285—\$451.00

C. Torso with Head, 16-Part

Durable and handpainted to highlight fine anatomical detail, model shows major internal organs. Features are numbered and referenced in included key. Size: 35½" x 13" x 9".

FB0756—\$645.00

D. Lung Demonstration Kit—Healthy Lung vs. Smoker's Lung

Two sets of specially preserved swine lungs demonstrate the operation of healthy lungs and lungs damaged by smoking and abuse. Simulated smoker's lungs have realistic staining and tumors.

FB0100—\$431.00

E. Animal Cell Model Kit

Cover cell structure and function, osmosis, eukaryotes and bacteria with this resilient, nontoxic EVA foam model that will withstand years of active investigation. Includes detailed teacher's guide.

FB1370—\$86.50

Molecular Model Set

This 104-piece set of 1"-diameter wooden atoms and pegs and springs fit snugly so your organic molecules stay together. Painted in vibrant colors, the balls (atoms) that can build a number of molecules.

AP8933—\$43.35

Magnetic Atom Model

Giant atom board lets students "see" the particles as each atom is "built." Place the bright, color-coded magnetic protons, neutrons and electrons for elements 1-10 to show atomic structure.

AP6023—\$84.85



Flinn Economy Compound Microscope, 4X, 10X, 40X

This microscope is easy to operate and maintain and is suitable for viewing eukaryotic cells and tissue samples. It is equipped with a triple nosepiece housing three objective lenses, stage clips and an iris diaphragm with a single-lens condenser.

MS1021—\$289.00

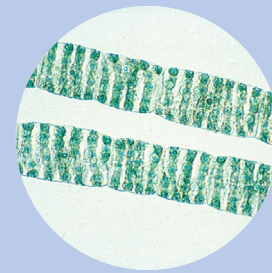


Microscopes & Stereoscopes

Selecting the right microscope or stereoscope can be a challenge. Flinn has an array of options for all levels.

The Advantage of Prepared Slides

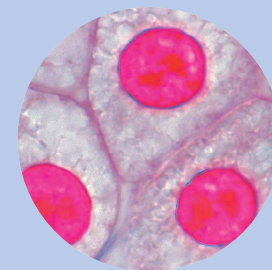
Having students prepare microscope slides can take hours, and inexperience can result in poorly prepared slides and precious lab time wasted. Our prepared slides save time and ensure quality. Choose from a variety of individual slides as well as organized slide collections that are ready to engage students in meaningful comparisons.



Spirogyra Slide

w.m. Small species, cells with chloroplasts

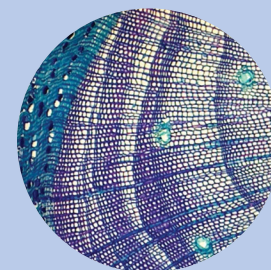
ML1062—\$4.65



Animal Cell Slide

Congo eel, *Amphiuma*—liver cells

ML1007—\$5.41



Plant vs. Animal—Comparison™

Set of four slides comparing plant and animal cells

ML1392—\$25.90



Flinn Stereoscope, Economy, LED

Features total magnification with a 10-mm diameter field of view under 20X magnification and 5 mm under 40X magnification. Fixed working distance keeps samples in focus between objectives. 2X, 4X.

MS1132—\$330.00



Flinn Compact Microscope

Affordable and compact, this ¾-size microscope has 4X, 10X and 40X DIN achromatic objectives, adjustable LED illumination, coaxial focus control, disc diaphragm and spring-loaded stage clips.

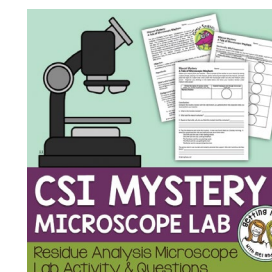
MS1171—\$183.00



Celestron Digital Microscope Imager

This 2MP microscope imager turns traditional microscopes into high-resolution digital imagers with a computer. Record still images and even take videos of your specimens using the CMOS sensor.

MS1116—\$87.10



Getting Nerdy® Science—CSI Mystery Microscope Lab

This 1- to 2-day lab requires microscopes and a scientific eye as students become detectives and view residues. Easy to implement using household items. Includes PDF handouts.

GN1028—\$3.95



Flinn Basic Microscope

Full functionality at ¾ the size and cordless operation allow students the freedom to view three-dimensional specimens in the lab or in the field under three objective lenses from 40X to 400X.

MS1130—\$103.00



Digital Microscope, Handheld

View specimens on a computer screen, capture images and record short videos. Rugged stand holds it steady at various positions. Press the button on the microscope or click the mouse to take a photo.

MS1101—\$78.30



Basic Field Scope

With only one moving part and constructed of solid nickel-plated brass, the 30X total magnification and prism illuminator enable internal views of thin specimens and exterior views of 3D specimens.

MS1115—\$156.00

To see Flinn's full collection of microscopes and stereoscopes, visit www.flinnsci.com to compare and find what you need.



Hot Plate, Double Stovetop Burner

Economy-priced electric double stovetop hot plate features durable metal housing with adjustable knob for heat control. Not GFI compatible. 120 V. 1500 W. 6" diameter burners. 22" W x 9" D x 2½" H.

AP4831—\$96.55



Hot Plates, Digital, Cimarec

Large, solid, flat ceramic top is chemical resistant and brings solutions to temperature quickly, with boiling in less than eight minutes. Easy-to-read digital display, adjustable in 1 °C increments.

AP6581—4" x 4"—\$305.00

AP6582—7" x 7"—\$351.00



Hot Plate, Temperature Controlled

With a maximum temperature of 370 °C, adjustable thermostat controls plate temperatures within ±3 °C. Aluminum top plate is 6¼" square. Ventilated plate case protects benchtop against heat damage.

AP8387—\$410.00



Hot Plate, Student Model, Adjustable Temperature

Adjustable temperature hot plate features a cast aluminum top, perforated steel aluminum housing and sufficient ventilation that protects the hot plate from overheating and benchtops from damage.

AP9162—\$322.00



DLAB Digital Pro Hot Plate/Magnetic Stirrer

Suitable for repeated and prolonged use, it features a 5" diameter workplate, LED display, temperature range from ambient room to 280 °C with resolution at ±1 °C.

AP10087—\$252.00



EcoStir™ Magnetic Stirrer

Customized for liquid mixing and handling, it has rare Earth magnets for strong stirring power. Brushless DC motor, stepless speed from 300–2,000 RPM and chemical-resistant PET top. Shaft can handle various sensors.

AP9552—\$69.30



A. Flinn Hot Plates

These "state-of-the-art" devices feature ceramic tops with excellent chemical resistance, high impact strength and an unsurpassed flat surface for better heat transfer.

2 options available—\$236.00–\$304.00

Flinn Digital Hot Plates

Quickly set the desired temperature on an LCD digital display with a resolution of ±0.1 °C. Reaches maximum temperature (538 °C) within 8 minutes.

2 options available—\$294.00–\$330.00

Flinn Hot Plate/Magnetic Stirrers, Digital

Perfect for making solutions, the stirrer speed adjusts from 300–2,000 RPM with a brushless DC motor. Analog models also available.

B. AP9808—4" x 4"—\$540.00

C. AP9809—7" x 7"—\$635.00

DLAB Classic Magnetic Stirrer/Hot Plate

State-of-the-art stirring hot plate built for prolonged use in the teaching lab or classroom. Features a maximum temperature of 340 °C and maximum stirring speed of 1,500 RPM.

AP9748—\$332.00

Find quality equipment for every budget at Flinn. Choose from more than 25 models of hot plates, stirrers and magnetic stirrer/hot plates at www.flinnsci.com/ms.



Plasticware

Economical, Lightweight Choice

Making the Right Choice

Introduce lab equipment that builds confidence in young scientists! Plastic labware is an economical way to start up or add to your lab. It's a great way to avoid breakage as it is very durable. Plus, most plasticware items are recyclable at end of use.

Best Practices for Use

Understanding chemical resistance and physical properties of plastic labware is of great importance. Use plastics like polystyrene, polypropylene and polymethylpentene for experiments that call for diluted or weak acids, alcohols or bases.



Polyplastic Labware Set

Includes 30 reusable, durable, lightweight labware pieces with smooth edges that make it safe to introduce lab equipment handling with young scientists. Economical and recyclable; a less expensive way to start up your lab experience.

AP9953—\$40.95

Polymethylpentene Graduated Cylinders

Almost as clear as glass, polymethylpentene plastic is break-resistant with strong chemical resistance except with strong oxidizing agents. Precision molded and usable to 175 °C.

14 options available—\$5.23–\$52.35

Polypropylene Beakers

For general laboratory use, these graduated plastic beakers offer superior chemical resistance. Available in capacities from 50–2000 mL.

6 options available—\$1.90–\$15.95

Plastic Dropping Pipet

Giant Beral-type pipet features one-piece molded bulb with 300-mm long stem. Its 23 mL capacity offers 22 drops per mL.

AP8828—\$0.50

Reaction Plates

Clear polystyrene plates are perfect for sample identification with rows of wells marked by letters and numbers. Stackable for convenient storage.

4 options available—\$3.34–\$6.29

Petri Dishes, Disposable

These sterile polystyrene Petri dishes come in packages of 20.

AB1470—50 x 15 mm—\$7.50

AP8170—90 x 15 mm—\$6.45

Polyethylene Washing Bottles

Squeeze these chemical-resistant, low-density polyethylene bottles for a steady, controllable stream or a few drops. Delivery stops when pressure is released.

3 options available—\$4.27–\$5.40

Borosilicate Glass Care and Safety

Heavy-Duty Glassware

With common trade names, such as Pyrex® and Kimax®, borosilicate glass is soda-lime glass with a minimum of 5% boric oxide that is strong, heat-resistant and highly resistant to chemicals and has a low expansion coefficient. As such, borosilicate glass can withstand continuous use at temperatures up to 482 °C.

When glass is formed, the surface cools faster than the interior, so a compressed skin surrounds the inside in tension. The tempering of borosilicate glass deliberately cools the surface much faster to make the skin tighter and therefore stronger. However, a scratch or a flaw creates a weak point, from which a break can occur.

Always examine glassware for obvious scratches or flaws, especially if it will be involved in extreme temperatures, mechanical stress or vacuums. Metal or glass stirring rods can scratch glass, so use a rubber policeman on the end of the rod or use a plastic rod.

A. Beakers

These basic beakers feature enamel metric graduations that indicate the approximate volume, and all sizes have an extra-large marking spot. 10-mL through 4-L with bulk pricing available.

10 sizes available—\$3.45-\$75.15

B. Graduated Cylinders

These basic graduated cylinders have pour spouts and feature plastic bases and cylinder guards (except the 10-mL size). 10- to 100-mL with bulk pricing available.

4 sizes available—\$5.90-\$9.25

C. Erlenmeyer Flasks

These Erlenmeyer flasks have heavy-duty rims and enamel metric graduations that indicate the approximate volume. 10-mL through 2-L with bulk pricing available.

9 sizes available—\$5.20-\$74.50

D. Volumetric Flasks

These high-quality volumetric flasks feature snap-on plastic closures and yield precise measurements. 100- to 100 mL with bulk pricing available.

4 options available—\$24.00-\$41.80

Test Tubes with Rims

These test tubes have fire-polished rims and optimal wall thickness for maximum heat and chemical resistance. 5- to 70-mL capacity with bulk pricing available.

8 sizes available—\$0.51-\$1.95

Pipet, Medicine Dropper

For administering solutions, this dropper is 76 mm long with a straight glass body and rubber bulb. 2 mL capacity. Bulk pricing is available.

AP5102—\$0.33

Stirring Rod, Glass

These glass stirring rods feature fire-polished ends. 200 mm long x 5 mm diameter. Bulk pricing is available.

GP5075—\$0.49

Wooden Test Tube Racks, 6-Tube

These beechwood, oil finished and glued racks feature dovetailed lock joints. Accept six tubes in a row and have six drying pins. Two hole sizes are available.

2 options available—\$11.40-\$14.60



Search www.flinnsci.com/ms
for more glassware and plasticware options!

Essential Lab Equipment

Balances—Available in a variety of sizes, styles and uses, balances are an essential addition to every practical lab environment. Digital and analog versions are available.

A. Flinn Triple Beam Balance

This top loader balance features magnetic beam damping for quick readings without change in sensitivity or accuracy. 610 g capacity, 0.1-g precision, 15-cm diameter platform. Includes three attachment weights.

OB2181—\$120.00

B. Ohaus Scout® SKX Electronic Balances

Feature large high-contrast LCD displays and weighing pan, sealed front panel and molded spill ring, overload and sudden impact protection, adjustable leveling feet and illuminated upfront level indicator.

4 options available—\$266.00–\$670.00

C. Flinn Scientific Electronic Balances

Known for accuracy and dependability, these stackable electronic balances feature stainless-steel weigh pans and flip-down covers and offer readability to 0.1, 0.01 or 0.001 grams.

6 options available—\$188.00–\$461.00

Flinn Electronic Balance, Economy

With large LCD displays and stainless steel pans, these economy balances offer two-button operation and heavy-duty weight cell protection from overload damage.

4 options available—\$127.00–\$132.00

pH Meters—Widely used in chemistry, biology and Earth and environmental science experiments, pH meters provide more accurate and precise measurements than indicators or pH paper.

Flinn pH Meter

With a large easy-to-read display and replaceable electrode, its slim design easily fits into test tubes up to 80 mm. With 3-point calibration, measure pH from -2.00–20.00 at a resolution of 0.02. 3 V battery included. 188 x 50 x 17 mm

AP8673—\$51.10

Thermometers—A safer alternative to traditional glass, liquid- or mercury-filled thermometers, Flinn digital electronic thermometers offer more precise readings more quickly since students can see the digital temperature readout at a glance.

Flinn Digital Thermometer, with Extension Probe

Handheld digital thermometer is ideal for monitoring temperature changes in liquids and semisolids. Removable, 12 cm stainless steel probe measures from -50 to +200 °C and -58 to +392 °F (±1 °C) with a resolution of 0.1 °C.

AP8559—\$42.35

Spring Scales—Measure force and strength with a variety of spring scales and accessories.

Push/Pull Spring Scales

Use these versatile scales to measure pulling and pushing forces or weigh a suspended object. Durable and color-coded scales are calibrated in grams and Newtons.

4 options available—\$16.00

Spring Scales, Pull Type

Calibrated grams and Newtons to measure mass or force, a large top adjustment knob allows easy zeroing. Clear, durable plastic and large chrome hook and rings. For 500 to 5000 g.

6 options available—\$8.50–\$8.60

Hook Weight Set, Economy Choice

Black-painted weights with nonmovable top hook and recessed bottoms featuring a weigh-below bar. Supplied in a plastic storage block.

OB2066—\$51.45





More Lab Essentials

Get Your Lab Ready

A smoothly functioning lab requires a lot of equipment that may seem basic, but when it's missing, the lesson and the learning stop. Make sure you're prepared and your lab is supplied with all of the important essentials.

Bunsen Burner, Adjustable, Natural Gas

Aluminum mixing tube with flame retainer has adjustable vents and brass, threaded needle valve and rubber O-ring regulate gas.

[AP5344](#)—\$27.00

Portable Laboratory Burner

Burner assembly mounts on a butane canister. Provides three hours of "burn time" with fully adjustable gas control valve.

[AP1032](#)—\$57.10

Synthetic Rubber Tubing, 10-Foot

Latex-free rubber tubing is flexible yet and impermeable to gas with a temperature tolerance of -20 to 212 °F. 5/16" inner diameter.

[AP7651](#)—\$28.40

Wood Splints

Thin wood sticks are great for flame tests. Two package sizes.

[2 options available](#)—\$1.50-\$7.11

Flint Lighter

This provides a chemical-free way for igniting burners.

[AP8346](#)—\$3.19

Replacement Flints

Replacement flints for flint lighter. Buy depending on your flint lighter purchase date. Packages of 5.

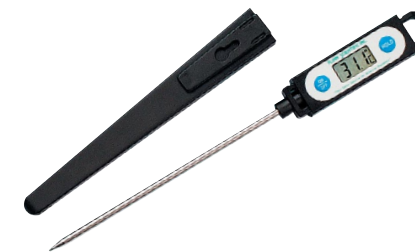
[AP8348](#)—For Flint Lighters before 2017—\$2.65

[AP9787](#)—For Flint Lighters 2017 or later—\$2.60

A



B



C



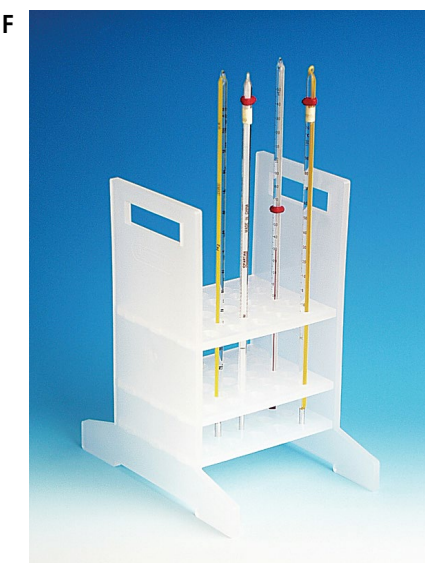
D



E



F



G



H



A. Butane Safety Lighter

Produce a flame with the click of a button. Safety features include an adjustable flame six inches from the switch and an on/off switch.

[AP8960](#)—\$8.83

B. Flinn Digital Pocket Thermometer, Economy Choice

Compact and waterproof, the 4 3/4" probe and lightweight design works for test tubes, flasks and small beakers without tip-over.

[AP6049](#)—\$29.30

C. Flinn pH Meter

With a large easy-to-read display and replaceable electrode, its slim design easily fits into test tubes up to 80 mm. With 3-point calibration, measure pH from -2.00-20.00 at a resolution of 0.02. 3 V battery included. 188 x 50 x 17 mm.

[AP8673](#)—\$51.10

D. Spirit-Filled Thermometer

Available for partial and total immersion, these are safer, nonmercury alternatives. 12" long with 1 °C subdivisions.

[4 options available](#)—\$5.95-\$6.53

E. Flinn Conductivity Meter

Green and red LEDs quantitatively measure solution conductivity. Meter displays low for 70% alcohol solutions, medium for water.

[AP1493](#)—\$24.70

F. Thermometer Storage Rack

Heavy-duty polypropylene storage rack stores 25 thermometers. Two carrying handles and a sturdy base.

[AP5996](#)—\$47.10

G. Spectrum Tubes

Gas-filled glass tubes have sealed metal electrode ends. When powered, tubes emit the gas's characteristic color.

[15 options available](#)—\$43.90-\$71.55

H. Spectrum Tube Power Supply

Specially molded sockets enable spectrum tubes to be held in position with maximum protection for the user against electrical contact.

[AP1327](#)—\$234.00

I. Spectroscope

Handheld diffraction grating spectroscope in a plastic case measures light wavelengths from 400-700 nanometers.

[AP8696](#)—\$10.55





Choose Flinn Chemicals

Safe, Sized and Ready

Premixed solutions. Save preparation time with Flinn's premixed solutions and get the right concentration and amount to fit your needs.

Small-size options. We offer large and small quantities of many chemicals so you can purchase only what you need and ensure fresh product every time.

Safe packaging. Our packaging ensures optimum safety. PVC-coated bottles contain spills and prevent dangerous glass shards escaping in the event of breakage. Flinn *Chem-Saf™* bags and *Chem-Saf™* cans are used to protect volatile or light-sensitive chemicals as well as those using them.

GHS-compliant labels. All of Flinn's chemical labels are GHS compliant, providing "best-in-class" safety for every end-user because all hazards are clearly known.



Top 20 Chemicals

We Have What You Need

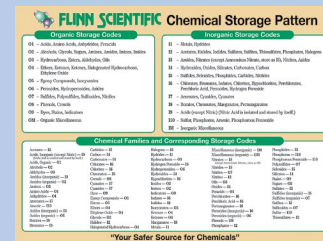
Catalog No.	Description	Price
A0111	Alka-Seltzer® Tablets	\$10.55
B0228	Bromthymol Blue Indicator Solution, 0.04%, 1000 mL	10.25
C0016	Calcium Chloride, Anhydrous, 500 g	7.75
C0017	Calcium Chloride, Anhydrous, 2 kg	17.55
C0015	Calcium Chloride, Reagent, Powder, 500 g	22.00
C0381	Copper(II) Chloride Solution, 0.5 M, 500 mL	10.50
H0057	Hydrochloric Acid Solution, 1 M, 1 L	10.70
H0029	Hydrogen Peroxide, 6%, Laboratory Grade, 3.8 L	25.40
H0008	Hydrogen Peroxide, 30%, Reagent, 500 mL	27.55
I0021	Isopropyl Alcohol, 70%, Laboratory Grade, 500 mL	8.03
M0001	Magnesium Metal Ribbon, 25 g, Approx. 90 Feet	12.55
P0101	Phenol Red Indicator Solution, 500 mL	10.80
P0020	Phenolphthalein Solution, 1%, 500 mL	7.29
P0278	Potassium Iodide, Laboratory Grade, 100 g	28.40
P0067	Potassium Iodide, Reagent, 100 g	29.80
S0445	Sodium Alginate, 25 g	15.40
S0044	Sodium Bicarbonate, Laboratory Grade, 2 kg	14.75
S0054	Sodium Carbonate, Monohydrate, Reagent, 500 g	10.35
S0149	Sodium Hydroxide Solution, 0.1 M, 500 mL	5.97
V0005	Vinegar, White, 3.78 L	10.55
Z0003	Zinc, Mossy, 500 g	25.75

With more than 2,400 chemicals in stock, Flinn Scientific has what you need and is committed to safely supplying you with the chemicals. For any questions about choosing the right chemical or safe disposal methods, contact one of our scientists at 1-800-452-1261.



Receive a **FREE** Flinn Exclusive **Chemical Storage Pattern** Poster with your first order.

Visit www.flinnsci.com/ms.





The Full Earth Poster

Dramatic, digital portrait shows Earth suspended in the vastness and blackness of space. Generated by three layered satellite images then draped over a digital model of Earth's topography.

AP5240—\$12.70



Astronomy

Search Astronomy on www.flinnsci.com for books, globes, telescopes and more useful equipment to reach farther into your extraterrestrial studies.



Celestial Star Globe, Basic

Demonstrate relationships between Earth and the stars, planets and galaxies. The 12"-diameter, acrylic star globe surrounds a 4"-diameter Earth globe and features constellations, the Milky Way and more.

AP5141—\$157.00



Sun, Earth, Moon Systems—NewPath Science Learning Center

Dive into astronomy with this NewPath Learning Center, including a Curriculum Mastery® Game and visual learning guides in a durable pouch.

AP9647—\$20.75



Spacestation™ 60 mm Refractor Telescope, Tasco®

This powerful scope offers slow-motion controls and 25 mm, 10 mm and 4 mm eyepieces for sharp, focused images and a widefield view at up to 525X. Red Dot Starpointer makes locating celestial objects easy.

AP7123—\$168.00



Orbiter Planetarium, Manual

This hand-operated working model shows basic Earth and Moon motions and explain seasons and Moon phases. Transparent hemisphere can be placed around half of the Earth to show day and night. 12" H x 20" L.

AP5134—\$207.00



Star Theater

Enjoy a 3D planetarium experience in your own room! Put on your 3D glasses, sit back and relax as the projections take you on a journey of stars, constellations, planets and more on your ceiling or walls!

AP5137—\$42.00



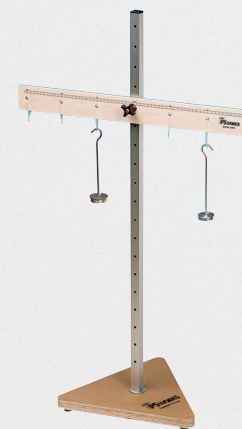
Clever Catch® Astronomy

Colorful, soft 24" inflatable vinyl ball helps students practice their knowledge of astronomy. Toss the ball to a student and they answer the question under their left thumb then toss it to the next student.

AP6667—\$13.70

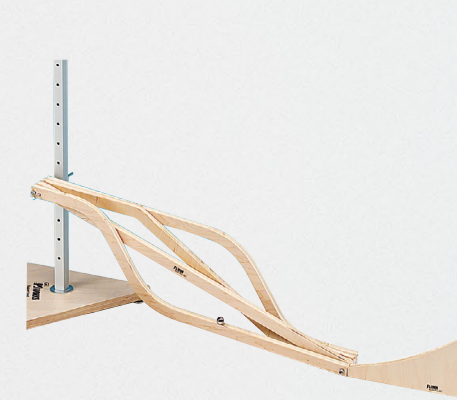
PSWORKS™

Count on Flinn *PSWORKS*™ for durable equipment and hands-on experiments to help you succeed at teaching key physics concepts. The tested, engaging labs improve critical-thinking skills as students use the sturdy hardwood equipment made in the USA.



PSWORKS™ Lever Arm

Students experiment with first-, second- and third-class levers and see relationships between distance, mass and the fulcrum position.
AP7001—\$52.15



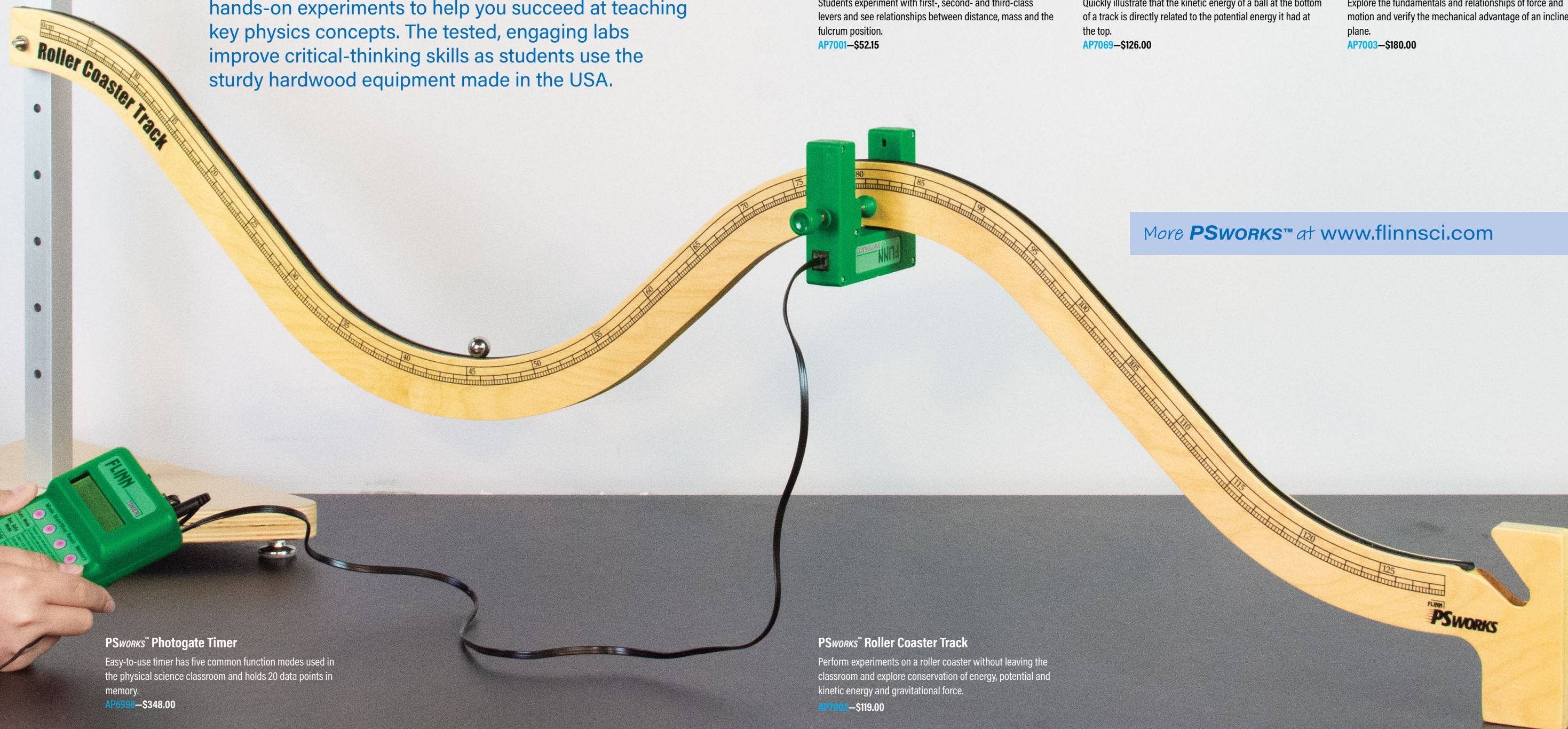
PSWORKS™ Conservation of Energy Tracks

Quickly illustrate that the kinetic energy of a ball at the bottom of a track is directly related to the potential energy it had at the top.
AP7069—\$126.00



PSWORKS™ Carriage and Ramp

Explore the fundamentals and relationships of force and motion and verify the mechanical advantage of an inclined plane.
AP7003—\$180.00



More *PSWORKS*™ at www.flinnsci.com

PSWORKS™ Photogate Timer

Easy-to-use timer has five common function modes used in the physical science classroom and holds 20 data points in memory.

AP6998—\$348.00

PSWORKS™ Roller Coaster Track

Perform experiments on a roller coaster without leaving the classroom and explore conservation of energy, potential and kinetic energy and gravitational force.

AP7002—\$119.00



Focus on Safety Before Entering the Lab

Flinn Scientific's Online Laboratory Safety Course stresses the importance of laboratory safety skills, including responsible disposal techniques, compliance with safety regulations and proper use of PPE to minimize exposure to hazards.

It also emphasizes the use of Safety Data Sheets (SDSs) and safety reference materials, the ability to recognize and react appropriately to chemical and physical hazards in the laboratory and understanding the categories of hazards (health, physical and environmental) associated with chemicals.

The course may be assigned and completed on any mobile device, at home, prior to the first laboratory session, or it may be completed in class or lab in approximately 45-60 minutes. Flinn's digital platform allows science

teachers to retain course performance data and a digital record of signed safety contracts.

The course is appropriate for use across the middle school science curriculum. Digital enrollment keys allow your students to easily join your virtual classroom. See www.flinnsci.com for additional set sizes and individual pricing.

Online Laboratory Safety Course for Undergraduates
EL9001—Classroom Set (1-30)—\$99.00



Chemventory™ Accurate Chemical Inventory Made Easy

The Flinn Online Chemventory™ is a cloud-based laboratory chemical inventory system that allows multiple users access to the database from multiple locations and devices! Maintaining an accurate laboratory chemical inventory has never been easier, more flexible and more convenient.

Secure Cloud-Based Service: Flinn Online Chemventory is a secure cloud-based service that can be accessed by any computer or tablet with an internet connection, allowing convenient access to your Chemventory database from your chemical storeroom, classroom or even your home.

Easily Add All Your Flinn Chemicals: You will find it simple to add Flinn chemicals to your Flinn Online Chemventory database. Look up chemicals by keyword, catalog number or alphabetical index, and select what you have in stock to add to your database.

Multiple Users: With Flinn Online Chemventory you can set up one database and invite other teachers, department chairs and/or administrators to view or update your Chemventory database for no additional charge.

Print, Email and Export Your Inventory List: Having all your chemical inventory information stored on the cloud is incredibly convenient. In addition, many teachers and administrators still like a hardcopy list of their current inventory. With just one click of a button, you can print or email a formatted list of the chemicals in your inventory.

Customize Your Database: Keep track of all your chemicals in one database. Flinn Online Chemventory gives you the flexibility to classify each chemical in your inventory by the school name, chemical storeroom location and shelf/cabinet location. Sort your list by any of these categories.

Link Databases Across Your District: If your school has multiple chemical storeroom locations or your district has multiple school locations, it will be more manageable to keep chemical inventory files in more than one Flinn Online Chemventory database. Flinn has made it easy to set up multiple databases and link access to users.

GHS Hazard Information Included: We have included the GHS pictograms and hazard information with every Flinn chemical in our Online Chemventory program. GHS pictograms and hazard statements also can be printed on chemical labels through the Online Chemventory program.

Flinn's Online Chemventory™ Inventory Management Systems
SE2998—1-Year License—\$99.00
SE2999—3-Year License—\$199.00
SE3000—5-Year License—\$349.00



Safety First

Get Everything You Need

A. Fire Blanket With Case

A woolen blanket for smothering fires and containing and controlling chemical spills. Blanket dimensions are 62" x 80". Mount it in a fixed location so it can be found quickly in an emergency. Fire blanket case dimensions are 18" W x 16" H x 5¼" D. [SE3006—\\$127.00](#)

B. Flinn Spill Control Center

Everything you need for most laboratory spill emergencies—sand, Super-Sorb® absorbent and acid neutralizer—in one convenient location in easy-to-use plastic bottles. Plastic bin holds absorbent pads, biohazard spill kit, acid-resistant gloves and goggles, counter brush, dust pan and laminated instructions. Finished with chemical-resistant paint, it can be placed on a wall or countertop. 17½" W x 15" H x 9" D. [AP6448—\\$235.00](#)

C. Eye/Face Wash, with Bowl and Wall Mounting Bracket

Two very large nozzles irrigate and wash both sides of the face and both eyes. Pressing down on the yellow pushplate valve activates the flow of water, which remains on until manually closed. Both hands thus remain free to hold eyelids open. Durable, high-visibility yellow ABS plastic. [SE1010—\\$381.00](#)

D. Safety First Sign—Safety Shower and Eye Wash Station

OSHA regulations require that you promote safety in the laboratory with placards at key locations. 10" x 14". [SE1908—\\$27.35](#)

E. Lab Coats for Women and Men

[13 options available—\\$43.15—\\$47.60](#)

F. Flinn Goggle Sanitizer

Allows several classes to safely share goggles. The racking system conveniently stores safety eyewear without stacking so a high-intensity ultraviolet 25-watt light can effectively sanitize. A light viewing screen, 15-minute timer and instructions on the cabinet front offer ease of use. Constructed of 24-gauge steel with a white baked enamel finish. Three models available. [SE1093—\\$660.00](#)

G. Colored Economy Choice Chemical Splash Goggles

Soft vinyl of goggles conforms to facial contours. Sold in packages of 10. Available in pink, blue and yellow. [3 options available—\\$55.40—\\$56.45](#)

H. Kimberly-Clark® Nitrile Gloves

Superior protection against acid and base solutions and halogenated organic solvents.

- Nitrile
- Textured fingertips
- Powder free
- Latex free
- Sold in boxes of 90 or 100

[5 size options available—\\$30.40](#)

Stock your lab with these safety essentials to ensure a successful school year. Then check out our selection of safety tips and videos as well as the Middle School Safety Contract for your students for FREE at www.flinnsci.com/ms.

Just for You! Teacher Geek Gear



Rainbow Tie-Dyed Lab Coats

Knee-length coat features three pockets and a button-down design. Its durability will make it last for years to come! Sleeves are slightly shorter for working with chemicals. Available in four sizes.

4 options available—\$78.70



Drink Coffee Periodically Mug

We drink coffee periodically; why not have some chemistry fun too? This mug is a definite favorite among teachers and students!

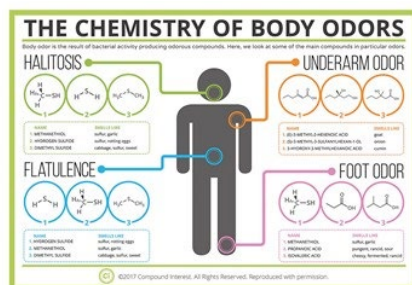
AP9457—\$15.10



Plasma Globe

Create a safe lightning storm in your classroom with a plasma globe. The electrically charged base creates colorful arcs across the gas inside.

AP6911—\$39.75



Compound Interest™ The Chemistry of Body Odors Poster

Bring chemistry to life with this colorful and fun poster on the chemistry of body odors!

AP9765—\$23.85



Newton's Apple

When an apple fell from a tree, Sir Isaac Newton was intrigued by gravity, which led to theories then laws. This apple serves as a reminder and also weighs a Newton.

AP7915—\$5.80



The Flying Pig

Add some laughs and inspire discussions about circular motion, centripetal force, gravity, vectors and even orbiting satellites. Two AA batteries are required and available separately.

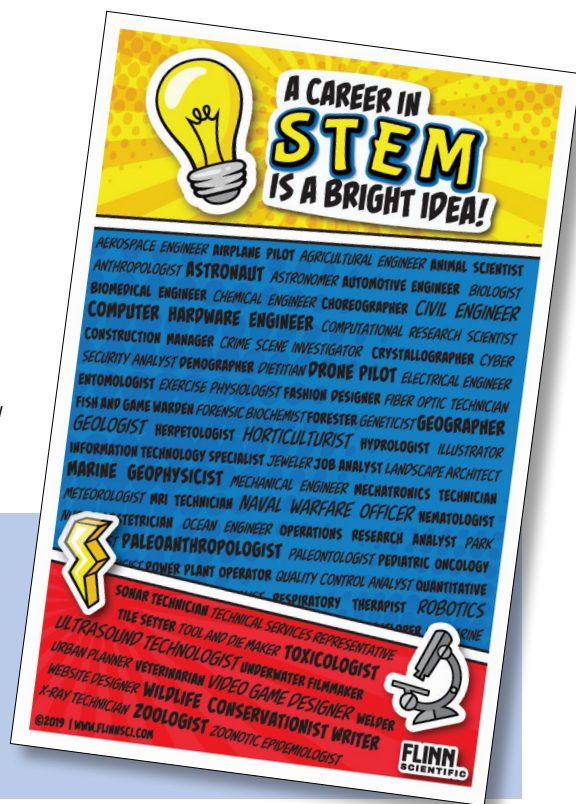
AP7842—\$12.30



Magic® Tree

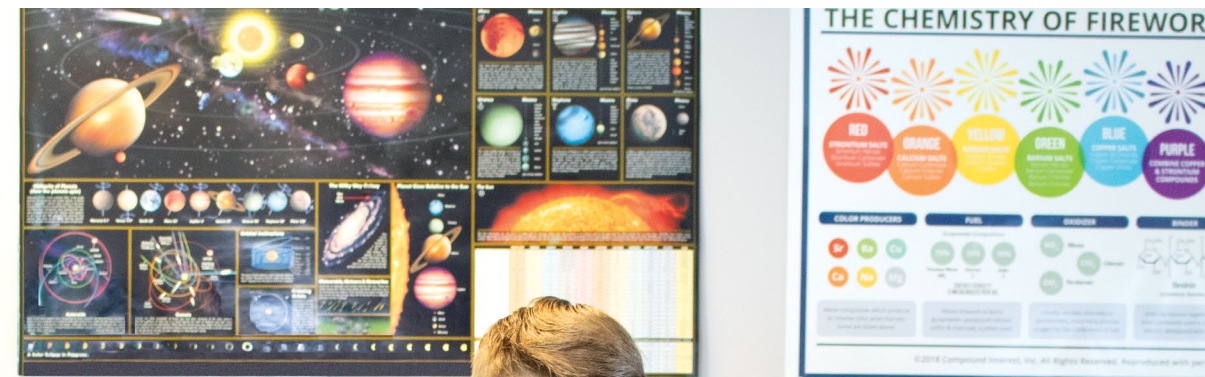
This miniature artificial crystal tree actually grows. Ornamental buds appear in 15 minutes and magically grow into an extraordinarily beautiful and delicate tree. Tree size is 2¼" tall.

AP1929—\$4.02



Visit www.flinnsci.com/ms for your free STEM Careers Poster!

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SCIENTIFIC



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SCIENCE**
...made easier!

We Have the Products and Resources to Support All Your Science Needs.

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For more information, visit us at www.flinnsci.com



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