SmartLab Customer Catalog
Update your SmartLab with new resources!
Updated September 2019

Learning’s different here...
# Table of Contents

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Items</td>
<td>4</td>
</tr>
<tr>
<td>Alternative Energy</td>
<td>15</td>
</tr>
<tr>
<td>Fischertechnik</td>
<td>17</td>
</tr>
<tr>
<td>K'nex</td>
<td>23</td>
</tr>
<tr>
<td>Sphero</td>
<td>25</td>
</tr>
<tr>
<td>Ozobot</td>
<td>26</td>
</tr>
<tr>
<td>IQ Key</td>
<td>27</td>
</tr>
<tr>
<td>Materials Testing</td>
<td>28</td>
</tr>
<tr>
<td>Nomad 883 Pro</td>
<td>29</td>
</tr>
<tr>
<td>Carvey Accessories</td>
<td>30</td>
</tr>
<tr>
<td>Smart Pads</td>
<td>31</td>
</tr>
<tr>
<td>Data Acquisition/Vernier</td>
<td>32</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>38</td>
</tr>
<tr>
<td>Electricity/Snap Circuits</td>
<td>39</td>
</tr>
<tr>
<td>Pneumatics</td>
<td>41</td>
</tr>
<tr>
<td>Learning Resources Products</td>
<td>42</td>
</tr>
<tr>
<td>Circuitry/Software Engineering</td>
<td>43</td>
</tr>
<tr>
<td>3D Printing</td>
<td>45</td>
</tr>
<tr>
<td>Software—Miscellaneous</td>
<td>47</td>
</tr>
<tr>
<td>Software—Graphics, and Animation</td>
<td>48</td>
</tr>
<tr>
<td>Software—Tech4Learning</td>
<td>49</td>
</tr>
<tr>
<td>Hardware &amp; Accessories</td>
<td>50</td>
</tr>
<tr>
<td>Padcaster</td>
<td>51</td>
</tr>
<tr>
<td>Student Broadcast Studio</td>
<td>52</td>
</tr>
<tr>
<td>Parts &amp; Pieces</td>
<td>53</td>
</tr>
<tr>
<td>Summer Camp Kits</td>
<td>54</td>
</tr>
</tbody>
</table>

Note: If you are interested in purchasing Lego products, please e-mail Brian Kratochvil at: bkratochvil@creativelearningsystems.com for pricing information.

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**Order Information**

**Ordering:** An order from an organization must be signed by an authorized purchasing agent. Whenever possible, use an official order form. Please include a telephone number and e-mail address to help us contact you if we have a question about your order.

**Shipping and Handling Charges:** Minimum shipping and handling charge is $10.00 for orders less than $100.00. For orders to be shipped inside the continental U.S., add 10% if it is under $1,000; 5% between $1,000 and $1,499; 3% over $1,500.00. Additional charge for shipping to residential addresses. For shipments to Alaska, Hawaii, or Canada, please call for pricing. For RUSH shipments, phone (1-800-458-2880) for available options and their related charges.

**Payment by Educational Institutions:** We accept purchase orders. Terms are Net 30 Days. We also accept Visa, MasterCard, and American Express. Credit card orders over $5,000 are subject to a 3% credit card processing fee. Credit card orders are billed at time of order.

**Payment by Individuals:** Payment must accompany all personal orders. We accept checks, Visa, MasterCard, and American Express. Credit card orders over $5,000 are subject to a 3% credit card processing fee. Credit card orders are billed at time of order. Orders paid via check are not shipped until the check is received and cleared by accounting.

**Prices:** We are experiencing price volatility due to tariff increases. Prices are subject to change without notice. We will contact you and let you know of price changes if we receive a purchase order with outdated pricing.

**Returns:** Items may be returned at the purchaser’s expense within 30 days of invoice date for credit, refund, or exchange. All returns will be charged a 25% restocking fee. Returned items must be in original packaging and in usable condition. You may call us at 800-458-2880 or send a fax to 303-772-6422. You will be given a Return Merchandise Authorization number (RMA #) to put on the outside of the package, so that you will receive the proper credit. Please pack item tightly and ship via UPS.

**Special Orders:** No returns or refunds on special order items or download only software.

**Foreign Orders:** Payments in U.S. funds only.

**Warranty:** Items are covered by original manufacturer’s warranty. CLS will provide purchase information to buyer for their use in contacting manufacturer for warranty assistance.
Curriculum

Learning Launchers™

Learning Launchers™ feature engaging, project-based activities using applied technology to develop 21st century skills. Many Learning Launchers include video tutorials, project worksheets, hyperlinks to rich internet content and other great resources.

Learning Launcher titles are available for each technology tool regularly available in a SmartLab and each title is comprised of Learning Launchers in three levels to bridge learners from foundational to self-directed learning.

Lift Off Challenges

Lift Off Challenges guide the learning engagements and provide the core educational resources for introductory Elementary SmartLab experiences. Lift Off Challenges are designed to help students successfully transition to Learning Launchers provided at the middle and high schools.

Each element in a Lift Off Challenge is designed to make learners more independent—to teach them how to plan and carry out projects of their own design, conduct their own research, develop their own ideas, defend their reasoning, and collaborate with others in high-performance teams.
NEW ITEMS - ROBOTICS

ROBOMASTER S1
#A007135 $512.99
Intelligent Educational Robot that lets students dive into robotics and programming. Equipped with various sensors, detecting clap, gesture, hits and more. Total of 46 programmable components. Includes attachable camera for video or still shots from the ground.

OSMO POCKET CAMERA
#A055019 $427.99
3 Axis Stabilized Handheld camera
Built-in touchscreen and buttons to provide a single handed user experience
140 minute battery life
4k60fps Video at 100 Mbps
1/2.3" sensor for photos providing stunning detail

WONDER STARTER PACK KIT
#A055026 $459.99
Dash and Dot Robots, Accessories and Curriculum Guide
This Value Pack will encourage kids to use their imagination while helping them build problem solving skills.
Includes:
- Dash and Dot robots
- Launcher
- Xylophone
- Gripper building kit
- Building Brick connector set
- Accessory Pack, bunny ears, tow hook, bulldozer bar
- Curriculum guide
- Learn to Code Challenge Cards-starter pack
NEW ITEMS

SKOOG MUSIC!
Must have iPad or iPhone

SKOOG
#A000128 $210.99

Make your own music with SKOOG. It works with your iPad or iPhone and the free Skoog app. There are 5 sides on your Skoog—red, blue, yellow, green and orange. Each side plays a different note. Pressing the colored circles will make music, and it can be squeezed anywhere on its sides edges and corners. Thanks to academic research, the Skoog is a proven learning tool, and the best part is, it can be used successfully by children of all ages and abilities. It has shown to be valuable to those with profound physical or learning disabilities.

NEW 3D PRINTER ACCESSORY

Palette 2 Pro by Mosaic
#A000131 $675.99

Take your 3D printing to a new level!
4 colors one nozzle. Print up to 4 colors in any given design. Easy set up, the Palette 2 can automatically splice to another spool so never run out of filament on long prints again.

Recommended to use with Dremel3D45
NEW ITEMS

DREMEL LASER CUTTER

ENGRAVER AND FILTRATION SYSTEM
#A000230-A and #A000230-B
$6,499.00            $2,250.00

Must be sold together total $8,749.00

The Dremel Laser software is easy to use. It breaks printing down into 3 easy steps: Place, Prepare and Print.

Unlock full creative potential by cutting, scoring and engraving a wide variety of materials effortlessly.

CART SYSTEM 48”x24”x40”
Cart #A000231-A $250.00
Handle #A000231-B $25.00
Shelf Liner (need two) #A000231-C $35.00 x2 $70.00
Basket #A000231-D $32.00
Total $377.00

Recommended for engraver and accessories

MATERIALS

1/8” BIRCH PLYWOOD (5PK)
#A000232 $39.99

1/8” CLEAR ACRYLIC (5PK)
#A000233 $64.99

1/8” MATTE ACRYLIC (5PK)
#A000234 $64.99
NEW ITEMS

GO PRO, HERO 7 BLACK KIT  
(includes SD card)  
#A055007  $434.99

GO PRO, HERO 7 WHITE KIT  
(includes SD card)  
#A055008  $234.99

GOPRO CAMERAS  
Includes SD card

- Photos or Videos  
- Smooth video  
- waterproof  
- 2 inch touch screen for simplified settings  
- Full HD Video with unique time lapse  
- voice  
- Voice commands  
- Hero 7 Black features:  
  - Super slow motion  
  - Hyper smooth

ROLI SONGMAKER KIT  
#A000245  $649.99

Create your track anywhere!

Unite two state of the art, touch responsive playing surfaces. A super powered keyboard, play drums with the lightpad Block M

- A Complete Studio Experience  
- 24 key wave Seaboard Block  
- Illuminated Lightpad M playing surface  
- Loop Block for production control  
- Customizable modular system  
- 100s of free sounds  
- Software bundle  
- Protective Snapcase
IRIG MIX
#A000178 $99.99

- Mobile Mixer for iPhone, iPod touch, iPad or Android device
- Ultra compact
- Offers same controls you would expect from a professional mixer (crossfader, cues, EQ and volume controls)

IRIG PADS
#A000179 $149.99

- Full featured ultra-portable 16-pad MIDI controller for iPhone, iPad and iPod touch as well as Mac and PC
- Smaller than an iPad and less than 1" thick
- Fully functional once it is connected to its host Device
- Allows you to make beats, launch loops, mix like a DJ and a whole lot more

UNODRUM
#A000180 $249.99

- Analog/PCM drum machine
- Fully programmable, Ultra-portable
- Easy to program and perform
- 12 total sounding drum elements
- Including Kick, snares, claps and hi-
NEW ITEMS

PROMETHEAN ACTIVPANELS

The Value-Focused Activpanel Nickel interactive display is designed to give teachers everything they need straight out of the box. Internet-ready and preloaded with teaching tools. The ActivPanel is a long-term, reliable solution for schools to replace out dated white board systems with an easy to use and highly capable interactive display.

Deliver interactive lessons using your choice of Promethean’s award winning educational software solutions.

During a lesson the teacher can interact with share screens directly from the ActivPanel, increasing student collaboration and participation.

******Additional shipping charges will apply******

******Requires Professional Installation at $2,000.00*****

Promethean ActivPanel 65”
#A007709          $2,999.99
**Professional Installation Required**
$2,000.00

Promethean ActivPanel 75”
#A007710       $5,859.99
**Professional Installation Required**
$2,000.00

Creative Learning Systems · voice 800-458-2880 · fax 303-772-6422 · www.creativelearningsystems.com
NEW ITEMS

LUX BLOX
Lux Blox were created to bring kids closer to nature's principles through play. This was achieved by making a system that build everything the way nature builds itself. This is a radical departure from stacking bricks, putting sticks into nodes or connecting magnetic pieces. Lux Blox puts together the world as the world is put together, at the principled structural level.

By snapping together Lux Blox's moving links, students quickly discover the excitement or nature's dynamic structures, majestic beauty, vast diversity forms and mathematical order.

Lux Blox makes learning more fun, deeper, and longer lasting because it taps into children’s desire to create their own connections.

Lux Blox can be used at all grade levels

Lux Blox can be used to create
• Machines
• Plant and animal structures
• Molecules and cells
• Explore architecture and art, mathematics and computer science

LUX STEAM ACCELERATOR DELUXE CLASSROOM SET (up to 25 learners)
$319.99  #A009021
Includes 800 Lux squares in 8 different bright colors
Also:
• 300 Lux Trigons
• 40 large Lux multi-wheels (also for gears and pulleys)
• 40 small Lux multi-wheels
• 40 large Lux Axels
• 40 Medium Lux Axels
• 40 small Lux Axels
• 40 Giant 7” Rubber Bands

LUX STEAM ACCELERATOR SMALL GROUP SET (up to 12 learners)
$219.99  #A009022
Includes 400 Lux squares in 4 different bright colors
Also:
200 Lux Trigons
20 Large Lux multi-wheels
20 Small Lux multi-wheels
20 Large Lux Axels
20 Medium Lux Axels
20 Small Lux Axels
20 Giant 7” Rubber Bands
NEW ITEMS

Circuits 101 4pk w/teacher kit.
$950.00 #A000190

A complete classroom solution to teaching electronics. Each student box comes with electronic parts and supplies. (recommended no more than 3 students per box)

Each Set includes:
- A teacher box with additional supplies,
- Curriculum, lesson plans, videos and diagrams
- Maker Tape brand conductive tape
- Batteries
- Over 27 parts including LED’s, light sensors, buttons, switches and much more
- Classroom ready packaging in heavy duty containers
- Informational cards with part explanations and example circuits

Programming 101
$1,100.00 #A000193

The lessons focus on teaching the basics of programming while also having them modify more complicated code in order to learn HOW different parts interact.

In addition to the electronic parts Programming 101 comes with:
- Free software
- Squishy Circuits Dough
- Bare Conductive Paint
- Distance sensors
- Light sensors
- Humidity sensors
NEW ITEMS

**LAPTOP WORKSTATION**
$199.99  #A000155

Height 42 inches
Width 27 inches
Depth 19-11/16 inches

*Worksurface 27”x 14-1/4”*

**AUDIO ENGINEERING COLLECTION**
$2467.99  #A055546

Includes:
- **Configured iPad** for audio engineering
- Apple Care Protection Plan 2 years
- Apple applications
- iPad Case
- Charger USB Multi-port
- Adapter Headphone 3 in 1 dual splitter
- DropMix Gaming System (shown below)
- Studio Monitors/Speakers (shown below)
- Keyboard Controller (shown below)
- Digital Condenser Microphone (shown below)

**DROP MIX MUSIC GAMING SYSTEM**
$129.99  #A000186

Fast paced music mixing game that lets learners create unexpected song mixes.

Includes 60 DropMix cards featuring popular artists and songs

Requires free DropMix App

**ULTRA COMPACT, HIGH QUALITY REFERENCE STUDIO MONITORS**
$299.99  #A000183

Extremely portable, high performance bi-amped speakers

**KEYBOARD CONTROLLER WITH AUDIO INTERFACE**
$199.99  #A000182

25 Full size keys for iOS, Mac/PC

**DIGITAL CONDENSER MICROPHONE**
$129.99  #A000181

For iPhone, iPad and Mac/PC
NEW ITEMS

Matatalab Coding, Music & Art Kit
$299.99  #A055009
Recommended ages 3-10

Learners develop cognitive abilities, imagination and coding skills as they program a robot, create music and art.

Screenless learning tool set allows learners to create using coding blocks, by controlling a robot car through coding algorithms. Instant feedback is received to enforce coding is simple. With the Music add-on, learners compose and create their own music. Learners draw graphics and pictures through programming, towards more advanced stages of coding with the Artist add-on.

Roto Cart
$89.95  #A007650
Approximate
Dimensions 38 inches tall and about 19 inches wide.

**Extra shipping charges will apply.

Drone Tello Quadcopter
$130.00  #A007130-01
• Smart interactive Drone
• 720P Videos
• 5MP Photos
• Takeoff and Land from your hand
• Programmable via Scratch SDK

Drone Tello Quadcopter Boost Combo
$175.99  #A007133-01
Drone Kit with extra batteries and Charging Hub

Play Impossible Gameball STEM Edition
$99.99  #A000140 Green
$99.99  #A000141 Purple

The Play Impossible Gameball is an active STEM system that delivers fun and challenging games integrated with math and physics lessons through a professionally crafted ball containing sensors that connect to a smartphone, tablet or PC via Bluetooth.

**More specific information can be found in the Facilitator Resources of your LaunchPad under SmartLab Resource Management
NEW ITEMS

Gravity Maze Kit
$42.99    #A055043
Ages 8+

Students use the force of Gravity and problem solving, reasoning and visual perception skills to build a path for your marble to travel to a target.

Circuit Maze
$51.99    #A055040
Ages 8+

Ignite your logic and sequential reasoning skills with Circuit Maze! Your goal is to arrange the tokens to create a real circuit that lights up the different colored beacons.

Laser Maze Kit
$44.99    #A055042
Ages 8+

Students Explore how light travels and learn how to manipulate a laser beam using mirrors and beam splitters

Goobi Magnetic Construction Set
$94.99    #A055012
Ages 5+

An ideal and amusing activity which induces creativity and helps to develop a sense of proportion. Teaches simple and spontaneous ways to learn basics of geometry, physics, architecture and engineering. Enhances eye-hand coordination and improves problem solving skills.

Squishy Circuits Deluxe Kit
$91.99    #A055013
Ages 8+

Squishy Circuits uses conductive play dough and insulating play dough to teach electrical circuits basics in a fun, hands-on way.

Start circuit building right away with the deluxe kit. With pre-made doughs, you can start creating and playing without waiting! This kit also includes a deluxe battery holder which has a knob that allows your lights to blink and buzzers to beep at different speeds.

Make your own dough! You can find both conductive and insulating dough recipes here: https://squishycircuits.com/pages/dough-recipes
Alternative Energy

Solar Energy Enhancements

**All American Sun Oven**
$349.00  # A083141-01
Reach temperatures of 360 to 400 degrees Fahrenheit.
Includes a CD featuring 600 recipes, pictures, video clips and more!

**Mini Solar Oven Kit**
$99.99  # A083143-02
The Mini Solar Oven is perfect for science projects or crafts. It weighs only 8 oz, and folds down to about the size of a 3-ring binder.

**Solar Thermal Exploration Kit**
$55.00  # A083175

**Junior Solar Sprint Accessory Bag**
$4.59  # A083101
Includes 2 shafts, 4 wheels/tires and 2 spur gear sizes

**Junior Solar Sprint Electric Motor**
$2.01  # A083160

**Junior Solar Sprint MT Bracket/Screws/Gears**
$1.73  # A083161

**Solar Panel Only**
$30.99  # A083100-P

**Junior Solar Sprint Kit**
$35.00  # A083100

**Junior Solar Sprint Discovery Collection Class Kits**
$100.99  # A055197-MC
The class kit provides additional solar car supplies. Order one for each class period!

**Junior Solar Sprint Discovery Collection Class Kits**
$101.99  # A055196-MC

**Solar Energy Discovery Collection Class Kits**
$100.99  # A055197-MC
The class kit provides additional solar car supplies. Order one for each class period!

**Mini Solar Oven Kit**
$99.99  # A083143-02
The Mini Solar Oven is perfect for science projects or crafts. It weighs only 8 oz, and folds down to about the size of a 3-ring binder.

**Hydrogen Fuel Cell Discovery Collection Class Kits**
$127.99  # A055194-MC
Buy enough for each class period!
Alternative Energy

Wind Power Discovery Collection
$1055.99 #A055192-03

Students will explore the history of early windmills and the evolution of modern power generating wind turbines. They will also learn the earth science concepts that explain how wind is created, and discover the prevailing global wind patterns and understand the science behind these enormous convection currents. Here are just some of the projects your students will explore:

- Propeller blade design
- Efficiency of wind energy
- Different types of generators
- Understanding wind turbines
- Wind farm design
- Storing wind power

The Wind Power Discovery Collection now includes Vernier sensors and that enhance the collection. The books are loaded with experiments for wind and solar energy.

Wind Power Replacement Parts

Blade Pitch Protractor
$4.00 #A083163

Alturbine Genpack
$49.00 #A083165

Alturbine Drive Train Upgrade
$8.00 #A083166

Dowels for Turbine Blades, 100 Pack
$10.00 #A083150-01

Red Blade Set
$10.00 #A083169

Chipboard Blade Sheets
50 Per Set
3” x 12”
$19.00 #A083148-02

Adaptable Turbine Classroom Pack
$384.00 #A083120-CL
(This pack is included in the Wind Power Discovery Collection)
**fischertechnik**

**Profi Mechanic+Static2**  
$166.99 # A055266-01  
The definitive technical construction set for future engineers and technicians. This comprehensive set explores how a shaft drive and/or manual transmission work; demonstrates the function of a planetary gear; and allows you to design a stable bridge.  
Requires 9V battery

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**fischertechnik Dynamic XXL**  
$232.00 # A544619  
Even higher, even faster, and even more action! All of this is guaranteed with the Dynamic XXL marble run. Three different marble runs can be constructed, and offer various opportunities for modification.  
Pair this set with the Bluetooth Control Set and Motor XS and control chicanes at the track crossings or stop points via Bluetooth, controller, or Smartphone or tablet.  
Requires 9V battery

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**fischertechnik Dynamic L2**  
$135.00 # A536621  
fischertechnik Dynamic L2 guarantees even more fun with new action models and 180 degree curve components. The four new high-speed curves with raised side edges let the balls roll at full speed through the curve. Watch as the balls race through the newly designed mechanical cross-over into various sections of the track.  
The Dynamic L2 set can seamlessly integrate into your existing Dynamic track—expanding your set and introducing new twists and turns!  
Requires 9V battery

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**fischertechnik Optics**  
$110.00 # A520399  
With the fischertechnik Optics kit, students can investigate optical phenomena and experiment with light! This planetary model clearly demonstrates why the moon has phases or why solar and lunar eclipses occur. Optical lenses with various focal lengths, mirrors, lens tip lamps and a variety of other parts allow construction of a microscope, magnifier, telescope and periscope. This construction set gives young scientists a glimpse into the world of optics.  
Ideal additions: Energy Set or Accu Set
fischertechnik

fischertechnik Education Green Energy
$235.00    #A533022
How can ecological electric power be produces? “Renewable energies” will become our most important suppliers of energy in the future. Production, storage and use of electricity from natural energy sources such as water, wind and the sun are graphically illustrated using various models and numerous experiments.
Contains 380 components.

fischertechnik Robotics Competition Lab
$699.00    #A519143
Windows only
The fischertechnik Robotics Competition Lab was designed for schools, universities and other educational institutions that want to develop or enhance current mobile robotics competitions for their students. This robust collection includes 570 pieces, the ROBO TX Controller (see features below), ROBO Pro Software and the AccuSet. It also includes a USB camera, a Gyro Sensor, an XS motor, a reed contact, and much more!

Robo TXT Controller
$420.00    #A522429
Windows only
The compact TXT Controller can be controlled easily with the color 2.4” touch display. The numerous interfaces also include a USB host port for USB sticks and other components such as the fischertechnik USB camera.
Requires fischertechnik Accu Set or Energy Set.

Robotics TXT Discovery Set
$485.00    #A524328
Windows only
Complete robotics set with 310 parts. Features include a USB camera, which allows images to be transferred via USB or WiFi, color recognition, line tracking and motion recognition. Color 2.4” touch display, Bluetooth module, Micro SD card slot, and more!
Requires fischertechnik Accu Set Rechargeable Battery & Charger.
$65.00     #A057487
fischertechnik

ROBO Pro Software
$36.00 – Single User
#A093296
$120.00 — Site License
#A093298
Windows only

This software is easy for beginners to use, thanks to proven flowchart programming utility consisting of various software modules. With ROBO Pro, it’s easy to write teach-in programs or exchange data with other Windows software.

fischertechnik Mini Bots
$122.00  #A533876

Make it easy for children to discover the evolving world of robotic technology. This set makes STEM concepts accessible to young students.

Build five versatile mini bots with 145 pieces.

Recommended for ages 8+.

Requires 9V battery.

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fischertechnik Introduction to STEM I Kit
$100.00  #A533353

fischertechnik Introduction to STEM I introduces your students to everyday technology and exhibits how these simple machines actually work. It is the ideal solution for bringing STEM curriculum to elementary school classrooms.

Recommended for grades 2-4, and includes standards-based curriculum.

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fischertechnik Introduction to STEM II Kit
$200.00  #A533507

fischertechnik Introduction to STEM II is a more in-depth introduction to technology and robots. This set uses everyday technology to invite students to construct 12 easy-to-understand models. Students are offered a foundation in STEM concepts by applying them to classroom and household items they use daily. This includes constructing a hand-dryer, windshield wipers, a lighthouse with blinking light, merry-go-round and an automatic sliding door.

Engage students with hands-on activities that will help them develop an interest and aptitude in STEM subjects.

Recommended for grades 3-5, and includes standards-based curriculum.

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fischertechnik Education Physics I—2.0
$142.00  #A538424

Physics is fun! With a track length of nearly 15 feet, the three different action courses offer boundless marble ball run fun. The four educational experimental models also indirectly explain the effects of different physical phenomena. Includes 780 components for building 7 different models.

Requires 9V battery
fischertechnik

Profi Pneumatic 3
$145.00  #A516185
This educational construction set helps students learn the principles behind pneumatics and uses realistic models to demonstrate how compressors, pneumatic valves and cylinders work. The new, powerful and compact compressor guarantees a reliable supply of compressed air to the models.
Requires 9V battery (not included).

fischertechnik Education Pneumatics
$158.00  #A533013
This educational construction set helps students learn the principles behind pneumatics and uses realistic models to demonstrate how compressors, pneumatic valves and cylinders work.

fischertechnik O eco Energy
$135.00  #A520400
How can ecological electric power be produces? “Renewable energies” will become our most important suppliers of energy in the future. Production, storage and use of electricity from natural energy sources such as water, wind and the sun are graphically illustrated using various models and numerous experiments. The “Fuel Cell Kit” 520401 below offers an ideal addition.

Profi Fuel Cell Kit
$110.00  #A520401
How does a fuel cell work and how does it generate hydrogen? The Fuel Cell Kit brings this technology of the future directly to you and provides answers to these and other questions. Use this add-on kit with the fischertechnik O eco Energy set to build models.

fischertechnik Electronics
$159.00  #A524326
Simple circuits, series and parallel connections, electronic circuits with transistors, capacitors, resistors and LED’s. Step for step, this construction set teaches the basic principles of electronics. The Electronic-module, a control with 8 fixed programs, has 2 motor outputs, 3 analog inputs for sensors and potentiometers for controlling the speed of the motor.
Requires 9V battery (not included).
fischertechnik Universal 3
$86.00    # A511931

The Advanced Universal 3 set provides an ideal pathway for introducing younger students to everyday technology and to enable them to understand how the things around them actually work. Includes colorful, 170 page pictorial assembly instructions for all 48 models. Age 7 and above.

fischertechnik Education STEM Prep 2.0
$799.00    # A519340

118 Models
2110 Parts
Secondary Level

New!

The new fischertechnik Education STEM PREP set enables students to understand and explore many essential aspects of technology, with a focus on physics, robotics, energy, and power. It includes parts, along with step-by-step pictorial instructions for building each of the models found in the following 9 fischertechnik sets:

- Drive Systems
- Oeco Energy
- Pneumatics
- Mechanics
- Physics I
- Physics II
- Electronics
- Optics & Light
- Robotics: Beginner

fischertechnik Education STEM Engineering
$939.00    # A519341

22 Models
890 Components
Secondary Level

New!

fischertechnik Education STEM Engineering provides students with a comprehensive overview of robotics, coding and automated systems. This set is based heavily in computer science and engineering with an emphasis on programming. With over 30 different activities, students are invited to use the ROBO Pro programming software to create their own programs and automate their models. Offer your students an in-depth look at how coding works, which will strengthen their computational logic and ability to employ creative thinking to analytical programming. Success in STEM and higher education starts with an understanding of computer science and how it applies to engineering topics. Give your students a step up with this engaging set!
fischertechnik
Supplemental sets

Creative Box 1000
$125.00  # A091082

This kit consists of a fischertechnik Storage Box 1000 loaded with 600 standard fischertechnik structural and mechanical parts to expand your building horizons.

Box 1000
$40.00  # A030383

This plastic storage kit helps you organize the large collection of unique parts which come with advanced fischertechnik building sets. It includes eight trays, 32 dividers and a 390 mm x 270 mm building base as the lid.

Motor Set XS
$43.00  # A505281

Contains building blocks, gearbox parts and toothed gears.

Motor Set XM
$43.00  # A505282

High performance geared motor in compact casing with numerous possibilities for attachments.

fischertechnik Bluetooth Control Set
$98.00  # A540585

Control fischertechnik models remotely using the remote control or Smartphone or tablet. Requires 9V battery and AccuSet.

Sound +Lights
$60.00  # A500880

Up to three different sounds and two lights. Requires 9V battery (not included).

Power Set 120V
$65.00  # A091087

Complete power supply from the wall socket. Power adapter and control unit all in one.

Accu Set 110V
$65.00  # A057487

Includes charger and NiCD battery pack.
K’nex has recently joined the Basic Fun family of brands. They have changed their selection of kits.

*K’nex 78630 Intro to Simple Machines: Gears
$39.99  # A078630
Includes 198 colorful parts to make seven different replicas of real world simple machines. STEM concepts—making work easier, mechanical advantage, gear ratios, spur gears, crown gears, mechanical systems and more!

*K’nex 78610 Intro to Simple Machines: Levers and Pulleys
$39.99  # A078610
Includes 178 colorful parts to make seven different replicas of real world simple machines. STEM concepts—making work easier, mechanical advantage, effort arm, fulcrum, lever classes, pulley systems and more!

*K’nex 78620 Intro to Simple Machines: Wheels, Axles & Inclined Planes
$39.99  # A078620
Includes 221 colorful parts to make seven different replicas of real world simple machines. STEM concepts—making work easier, mechanical advantage, wedges, screws, energy transfer, mechanical systems and more!

K’nex 89790 Thrill Rides 6-Foot Ferris Wheel
$499.99  # A089790
Take on the ultimate K’nex building challenge with the 6-foot Ferris Wheel Building set! Ideal for kids 9 and up!

The set includes 8,550 classic K’nex pieces and a battery-powered motor. (Requires 2 AA batteries, not included).
K’nex 78890 Amusement Park Experience Grades 5-9
$299.99     #A002951
This new 2,264-piece set replaces the Amusement Park Science and Technology Set and the Amusement Park Rides Set. The Amusement Park Experience Set has been produced in cooperation with Vernier, Pasco, and Texas Instruments so that it can be used with several of their data logging sensors.
This set includes a 90-page inquiry-based teacher’s guide. It also includes the new K’nex storage system—everything is stored in three large trays with movable dividers and snap-on lids.

K’nex 78680 Real Bridge Building
Grades 5-9
$209.99     #A002954
The Real Bridge Building Set builds seven 5’ long replicas of real world bridges. Define characteristics and the differences between the 7 bridge types...why build a suspension bridge instead of an arch bridge? Includes curriculum.

K’nex 78976 Renewable Energy Set Grades 5-9
Sold only as a set of two
$400.00     #A723006
This exciting set helps students learn about real-world issues and concepts that will impact our future. Realistic models and comprehensive teacher’s guide allows students to compare and contrast the power and efficiency of three different alternative energy sources.

Kid K’nex 78830 Transportation
Ages 3+
$119.00     #A078830
This engineering education toy allows young builders to create a variety of vehicles with fun faces, including cars, boats, and planes. This is an ideal educational tool for preschool to 2nd grade students.
Robotics and Control Technologies

Sphero BOLT's eye-catching, programmable 8x8 light matrix opens up an endless array of coding and gaming capabilities. Use advanced sensors to track speed, acceleration, and direction, or drive BOLT without having to aim your robot thanks to the compass. BOLT also features infrared communication, allowing your robot to “talk” with other BOLT's.

Includes:
- Sphero BOLT
- Charging base with USB charging cable
- Protractor with heading, directions, and clock
- Quick Start Guide
- Sticker sheet
- Sphero Play app for iOS or Android
- Swift Playgrounds app for iOS
- Sphero Edu app for iOS, Android, Kindle, Mac, Windows, and Chrome

The collection includes:
- Terrain Park, Chariot, Nubby Cover and Turbo Cover.

Note:
Requires a mobile device with Bluetooth.
Compatible with iOS, Android and Windows devices.

Sphero BOLT Collection
$231.99  #A055023

Sphero Blue Chariot
$19.99  #A000589-BC

Sphero Terrain Park
$19.99  #A000589-TP

Sphero Nubby Cover
$14.99  A000589-NC

Sphero Turbo Cover
$14.99  #A000589-TC

Sphero Charging Case
$375.99  #A000587

Sphero Maze Tape
$24.99  #A000597
Robotics and Control Technologies

Ozobot Starter Kit Collection
$131.99  #A055031-01

Meet Ozobot Evo, the tiny smart robot! Starting with color markers, Ozobot takes kids on a fun and mesmerizing experience through creative drawing, problem solving and group challenges by color coding commands in the form of basic color combinations.

In the box:
1 Ozobot Evo educator kit with the 4 markers and charging cable, We add an Ozobot DIY skins accessory pack (#A000572-01 at $12.99) if want to purchase separate
8.5 x11 cardstock (#A000575-01 at $7.50) if want to purchase separate

Ozobot Evo Classroom Kit
$1,200.00  #A000574–01

The Ozobot Evo Classroom Kit comes with 12 Evo Bots and everything else you need to introduce Ozobot to your students. Includes 150+ STEAM lessons.
Recommended for grades K—12.

Ozobot Washable Markers—4 Pack
$7.99  #A000571

4-pack of black, red, green and blue colors.
Use any plain white paper to draw paths and mazes for Ozobot.

OZOBOT EVO EDUCATOR KIT
#A000570-01  $99.00

Includes:
• 1 Evo Robot
• 1 charging cable
• 4 color code markers
• Access to 150+ STEAM lessons

Creative Learning Systems • voice 800-458-2880 • fax 303-772-6422 • www.creativelearningsystems.com
IQ Key

IQ Key Collection
$201.99    #A055134-MCKE

For those of you who were Capsela fans,
IQ Key is here!
Introduce your students to gears, gear ratios and
the concepts of force, work, speed and torque!
This collection includes the Perfect 1000 kit, and
an assortment of extra parts.

Please note—some IQ Key components are not
compatible with the old Capsela parts.

IQ Key Accessory Collection
$102.99    #A055134

The accessory collection includes a stop
watch, spring scale kit, extra batteries and
a storage container.

Engino

Engino Architecture Kit
#A055018
$223.99

Engino brings complex concepts into clear
focus for budding engineers and scientists.

LEARN how structural components work to-
gether to create the Eiffel Tower and the Syd-
ney Bridge structures
Materials Testing

Vernier Structures & Materials Tester

$999.00  # A730076  
Mac/Win

Evaluate the strength of model bridges and engineered structures by measuring the applied load with the Vernier Structures & Materials Tester. Utilizing both load and displacement sensors allows students to evaluate properties of materials (stress and strain).

Recommended for high school students.

Logger Pro 3 (purchased separately) includes several experiment files to help you conduct Class Bridge Design, Individual Structure Analysis and Elastic Modulus Moment of Inertia activities.

The collection includes a VSMT Tackle Kit.

The Vernier Structures & Materials Tester is compatible with LabQuest 2, LabQuest Mini and the original LabQuest.

Requires one of the interfaces listed above and Logger Pro 3 or Logger Lite software.

Vernier VSMT Tackle Kit

$49.00  # A730077

Buy a second Tackle Kit so that one student can prepare a bridge for testing while another student performs the test on their bridge. The Kit provides the means to quickly and easily position the load plates for both top and bottom loading of bridges, as well as U-bolts for applying loads to materials, beams and structures of varying sizes and shapes.

Vernier Truss Tester Accessory

$128.00  # A730083

The Truss Tester Accessory for the Vernier Structures & Materials Tester provides a fast and effective method to evaluate the strength of trusses. Students use the tester to collect data that allows them to evaluate parameters affecting truss strength and apply engineering design principles to improve truss performance.

It is designed for trusses built with 1/4” square balsa wood sticks.

ISC Tensile Test Specimens Collection

$45.00  # A007444

- 10 stainless steel specimens
- 10 brass specimens
- 10 CR steel specimens
- 10 aluminum specimens

Limited to stock on hand

Bridge Model Kit, Balsawood

$79.99  # A005000

Bridge Model Kit, Basswood

$74.99  # A005001
NEW ITEM - CNC MACHINE

NOMAD 883 PRO
$2859.00 #A008062

A Fully integrated, ready-to-run CNC Mill
Includes:
• Power Supply
• USB Cable
• MDF Wasteboard
• 1/8” ER-11 Collet and wrenches
• 1/8” Ball endmill
• 1/8” Flat endmill
• Double Sided tape
• Software, Carbide Motion, Carbide Create and MeshCAM

NOMAD CUTTER BUNDLE
$280.00 #A008063

Includes
• 2 of #101 .125” Ball Endmill (qty 3 per set)
• 2 of #102 .125” Square Endmill (qty 3 per set)
• 2 of #111 .0625” Ball Endmill (qty 3 per set)
• 2 of #112 .0625” Square Endmill (qty 3 per set)

NOMAD MATERIAL BUNDLE
$194.00 #A008064

Includes
• 2 of 1”x3”x5” Synthetic Wood (Qty 5 per set)
• 2 of 1”x2”x3” Machinable Wax (Qty 5 per set)
• 2 of .125”x4”x5” Acrylic (Qty 5 per set)
• 2 of 1”x3”x5” HDPE (Qty 5 per set)
• 2 of .125”x4”x5” Red/White/Red two-tone HDPE
• 2 of .125x4”x5” Blue/White/Blue two-tone HDPE
• 2 of .125x8”x8” Red/White/Red two-tone HDPE
• 2 of .125x8”x8” White/Black/White two-tone HDPE
Carvey Accessories

**Carvey Mosaic Tiles**  
(60 per set)  
$100.00  
#A008050-1

**Carvey Bit Starter Set**  
$45.00  
#A008050-3

**Carvey Clamp Set**  
$40.00  
#A008050-4

**Carvey Circuit Board Bundle**  
$75.00  
#A008050-5

**Carvey Accessory Collection**  
$332.99  
#A055170

This collection includes a Dremel Craft and Hobby Maker kit, a Dremel All Purpose Accessory Collection, a 2.5 gallon wet/dry vacuum and assorted gloves and eye guard glasses.

**Carvey/Nomad Work Station**  
$342.00  
#A055114

A perfect sized cart to hold your Carvey or Nomad and accessory kit.
SmartPad

**SmartPad Single Kit**

$1205.99  #A055138

128GB, WiFi Only, Space Gray

- Includes AppleCare Protection Plan
- Includes Bluetooth keyboard and shock resistant case
- Fully configured by CLS to support the SmartLab Learning Environment
- Includes curriculum & support for 130+ applications
- Integration with Google, Microsoft and Mac systems

Each SmartPad will be pre-configured prior to shipment to include the most up-to-date resources and curriculum for students. Our designers will ensure that each SmartPad is loaded with applications to support what is currently going on in your SmartLab, and to extend the functionality of your current equipment.

Configured with 130+ applications, the SmartPad gives your SmartLab a level of flexibility to support students in all grade levels. Engagements support learning at all levels K-12.

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**SmartPad Kit & Storage Collection**

$3,617.99  #A059038

This collection includes three iPad kits (see description above), plus locking, secure storage with charging capability.
Data Acquisition

**Sensing Science Vernier Middle School Set**
$1472.99  # A055523-02
Mac/Win

We all measure something every day—our weight, the size of a desk, the temperature outdoors, the speed of our cars. With this kit, learners can take the act of measuring to a whole new level. Using the LabQuest 2 Interface and light probes, they can measure the intensity of light at various distances and hypothesize about the reasons for any differences. They’ll track body temperature changes under various conditions. And they’ll measure and plot position, velocity, and acceleration of their jumping partner and a bouncing basketball. And that’s just the introductory activities; learners will be challenged to devise their own “sense-ible” explorations using this kit.

**Vernier Elementary Collection**
$380.99  # A055521
Mac/Win

The Vernier Elementary Collection includes a Go! Link Interface (includes Logger Lite software), Go! Temp Sensor, TI Light Probe, Go! Motion Sensor, and Dual-Range Force Sensor.

**Elementary Vernier Accessory Collection**
$125.99  # A055522

Wow! There is a lot of stuff in this collection! We go shopping in several different stores for all of this! This collection supports the activities in the Vernier Elementary Collection. It includes tennis balls, slinky’s, ceramic cups, plastic tumblers, spoons, ice packs, duct tape, bubble roll, poly fill, and much more!

**Elementary Science with Vernier**
$48.00  # A730027-01

The activities in this book investigate the topics of temperature, motion, force, magnetism, light, electricity and pressure.

**Let’s Go! Investigating Temperature**
$25.00  # A730069

This lab book contains ten engaging temperature experiments to use with the Go! products.

**Vernier Go! Temp**
$39.00  # A730001
Mac/Win

Collect temperature data. Connect directly to your computer! Includes Logger Lite software.

**Vernier Go! Motion**
$124.00  # A730002
Mac/Win

Connect directly to your computer’s USB port, eliminating the need for a data-collection interface. Go! Motion comes bundled with free Logger Lite software.

**Vernier Go! Link**
$69.00  # A730007
Mac/Win

Connect any one of 41 compatible Vernier sensors to your Windows or Macintosh computer with the Go! Link interface. Includes Logger Lite software.
Data Acquisition

Vernier LabQuest 2
$329.00 #A730030-01
Mac/Win

The LabQuest 2 is a standalone interface used to collect sensor data with its built-in graphing and analysis application. The large, high-resolution touch screen makes it easy and intuitive to collect, analyze, and share data from experiments.

Vernier Logger Pro 3 Software
$249.00 #A004001
Mac/Win

Analyze data collected with the LabQuest 2 or LabQuest Mini Interface with this powerful software. Includes a generous site license that allows a school to install Logger Pro on every school computer, instructor computers, and the students' home computers.

Vernier LabQuest Mini
$149.00 #A004022
Mac/Win

LabQuest Mini brings the power of the LabQuest to teachers who don't need the versatility of a standalone device. Connects to computer via USB. Includes Logger Lite software.

Both the LabQuest 2 and LabQuest Mini are compatible with existing Vernier sensors.

Vernier LabQuest 2 Armor
$15.00 #A730084

Vernier LabQuest 2 Lanyard
$5.00 #A730085

Vernier LabQuest 2 Stand
$5.00 #A730086

Vernier LabQuest 2 Replacement Battery
$19.00 #A730054

Vernier LabQuest 2 Stylus Tether (5 pack)
$5.00 #A730090

Vernier LabQuest Stylus (5 pack)
$5.00 #A730091

Vernier LabQuest 2 Power Supply
$11.00 #A730055

Vernier Sound Level Sensor
$69.00 #A730081
Mac/Win

The Sound Level Sensor is a simple, easily-operated sensor to measure and investigate sound levels in classroom environments.

Vernier Go! Wireless Heart Rate
$89.00 #A730082
Mac/Win

The Vernier Go Wireless Heart Rate is ideal for continuously monitoring heart rate before, during, and after exercise or while a person is stationary. Data are wirelessly transmitted to iPad, LabQuest 2 or Android devices.
Data Acquisition

**Vernier Spirometer**  
$219.00  
#A730011  
Mac/Win  
Designed to make human respiratory measurements at rest and during moderate activity. Requires an interface and software.

**Vernier Hand Dynamometer**  
$108.00  
#A730003  
Mac/Win  
Measure grip strength and perform muscle fatigue studies. Requires an interface and software.

**Vernier Hand-Grip Heart Rate Monitor**  
$119.00  
#A730005  
Mac/Win  
This new monitor is ideal for determining a person's heart rate while mobile or stationary. The hand grips sense the electrical signals generated by the heart, much like an ECG. For each pulse detected, a signal is transmitted to the receive module, and the individual's pulse rate is calculated. Requires an interface and software.

**Vernier EKG Sensor**  
$154.00  
#A730008  
Mac/Win  
The EKG Sensor measures electrical signals produced during muscle contractions.

**Vernier EKG Electrodes**  
$12.00  
#A730018  
Mac/Win  
Package of 100 disposable electrodes for use with EKG Sensor.

**Vernier Blood Pressure Sensor**  
$109.00  
#A730010  
Mac/Win  
The Blood Pressure Sensor is a non-invasive sensor designed to measure human blood pressure.

**Vernier Go Direct™ Temperature Probe**  
$69.00  
#A730097  
Mac/Win  
Unlike a traditional thermometer, Go Direct Temperature allows students to collect real-time temperature measurements of a single instance or over a period of time. Its range and wireless capability make Go Direct Temperature the go-to sensor for real-world applications. It's also waterproof!

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*Don't see the Vernier product you want? Give us a call!*

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Data Acquisition

**Vernier Photogate**
$49.00  # A730021  
Mac/Win  
The Vernier Photogate works both as a traditional photogate for objects passing between gate arms, and as a laser gate for objects passing outside of the gate. Photogates can be used to study free fall, air track collisions, pendulum periods, the speed of a rolling object, and many other things.

**Vernier Microphone**
$44.00  # A730035  
Mac/Win  
The microphone can be used to display and study the waveforms of sounds and voices and musical instruments. It is also great for speed of sound experiments.

**Vernier Stainless Steel Temperature Probe**
$29.00  # A730051  
Mac/Win  
The temperature probe has a sealed stainless steel shaft and tip that can be used in organic liquids, salt solutions, acids, and bases.

**Vernier Light Sensor**
$59.00  # A730052  
Mac/Win  
The Light Sensor approximates the human eye in spectral response and can be used over three different illumination ranges, which you can select with a switch. Use it for inverse square law experiments or for studying polarizers, reflectivity, or solar energy.

**Vernier Voltage Probe**
$12.00  # A730053  
Mac/Win  
Use to measure voltages developed in a variety of electrochemical (voltaic) cells.

**Vernier UVA Sensor**
$109.00  # A730094  
Mac/Win  
The UVA Sensor is an ultraviolet sensor that responds primarily to UVA radiation. The sensor is ideal for experiments using UV lamps.

**Vernier Surface Temperature Sensor**
$23.00  # A004003  
Mac/Win  
The surface temperature sensor has an exposed thermistor that results in an extremely rapid response time. It’s ideal for situations in which a low thermal mass or flexibility are required. For use in air only.
Data Acquisition

Vernier Force Plate
$289.00   #A730004
Mac/Win

The Force Plate is about the size of a bathroom scale, and it measures forces of stepping, jumping and other human-scale actions. Requires an interface and software.

Vernier Salinity Sensor
$119.00   #A730000
Mac/Win

This sensor easily and accurately measures the total dissolved salt content in water. Requires an interface and software.

Vernier Conductivity Probe
$99.00   #A730032
Mac/Win

The Conductivity Probe determines the ionic content of an aqueous solution by measuring its conductivity.

Vernier Digital Radiation Monitor
$299.00   #A730064
Mac/Win

Use the Digital Radiation Monitor to monitor alpha, beta, and gamma radiation. It can be used with or without an interface.

Vernier Energy Sensor
$88.00   #A730072
Mac/Win

The Vernier Energy Sensor offers an easy way to quantify voltage, current, power and energy output of small wind turbines and solar panels.

Vernier Anemometer
$89.00   #A083153-01
Mac/Win

Use the Anemometer to measure wind speed in a variety of experiments.
Data Acquisition

Vernier LEGO Engineering Project Package
$860.99  #A055519

The package contains all of the sensors needed to perform the projects and experiments in the Vernier Engineering Projects with LEGO Mindstorms Education EV3 or NXT books.

You'll need the LEGO Mindstorms Education EV3 or NXT set and LEGO Mindstorms Education EV3 or NXT Software.

Vernier NXT Sensor Adapter
$39.00  #A730031
Mac/Win
Connect Vernier sensors to the EV3 Intelligent Brick for exciting robotics projects with sensory feedback and control. The NXT Sensor Adapter is compatible with both NXT and EV3 robotics systems.

Use with LEGO Mindstorms NXT, EV3, NI LabVIEW or ROBOLAB software.
Energy Efficiency

Vernier Energy Efficiency Secondary Collection
$1,475.99  #A055527

The Secondary Energy Efficiency Collection provides a set of resources and tools that students can use to perform an energy audit on the SmartLab (and the whole school!).

Our curriculum takes students through a wide range of Energy Efficiency topics including: calculating your carbon footprint, performing a house energy audit (with an infrared camera and watt meter), measuring light levels, and looking at the impact of recycling.

The Secondary Energy Efficiency Collection includes a Vernier LabQuest 2, a Flir Infrared Camera, and a variety of Vernier sensors.

Vernier Energy Efficiency Elementary Collection
$275.99  #A055526

The Elementary Energy Efficiency Collection supports the Energy Efficiency activities in the Sustainability section in Lift Off Challenges.

Using a variety of Vernier sensors, your students will learn how to choose the right bulbs for lighting different areas of your home and school.
Electricity

Snap Circuit Electricity Exploration Collection
$295.99  #A055185-01

This collection enables entry level students to explore simple series and parallel circuits with different types of switches, lights, motors, buzzers, LEDs, resistors, radios, and diodes.

Snap Circuit Green Energy Collection
$114.99  #A055187

Learn about energy sources and how to think green. The included manual will explain all the forms of environmentally friendly energy including: geothermal, hydrogen fuel cells, wind, solar, tidal, hydro and others. Builds over 125 projects.

Snap Circuit Elementary Collection
$107.99  #A055184

This introductory level kit makes learning electronics easy and fun. Build exciting projects such as AM radios, burglar alarms, doorbells and much more!

Snap Circuit Extreme Educational Collection
$152.50  #A008368

This kit offers an in-depth exploration of electronic components. This kit includes a Student Guide, which has 138 pages of educational curriculum.
Snap Circuits

**Snap Circuits STEM**
$52.50  # SC6SCSTEM1

Learn about electricity and magnetism, and how they relate to each other. Projects include an understanding of magnetic fields, how the electricity in your home works, and how switches control the electricity to the lights in your home.

Requires (3) AA Batteries—not included

**Snap Circuits 3D M.E.G.**
$78.95  # SC6SC3DMEG

Learn the basics of electricity, engineering, and circuitry! New component parts include 3D rotating snaps, two-sided base grid, rotating LED lights, and more!

Requires (3) AA Batteries—not included

**Snap Circuits SNAPINO**
$64.99  # A055188

Snapino is an introduction to the open-source Arduino hardware-software coding environment embraced by the Maker community worldwide. Snapino is compatible with other Arduino shields and components, and may be used with other Snap Circuit sets to make larger circuits.

Requires 9V Battery—not included

**Snap Circuits 3D Illumination**
$68.50  # SC6SC3Di

Take Snap Circuits into a new dimension with new snap modules allowing you to build your circuits horizontally, vertically and upside down.

Includes a projector with 6 cool images, a 3-color light tunnel and mirrors and reflecting circuits.

Requires (3) AA Batteries—not included

**Snap Circuits Sound**
$89.50  # SC6SCS185

Build more than 185 projects to help demonstrate the principles of sound. Connect the unit to your smart phone and analyzed sounds with downloadable apps. Use the voice changer to record voice or music and play it back at different speeds.

Requires (4) AA Batteries—not included
Pneumatics

Matrix Automatics Essentials Solutions
$1,940.00    #A029020

Our new Matrix Automatics Essentials Solutions kit provides a complete introduction to circuit design and construction. With this kit, students will:
- Understand the different types of pneumatic valves
- Understand different cylinder types and speed control
- Use reservoirs to create time delays
- Air bleed and pilot operated circuits
- Semi-automatic and automatic reciprocation
- Combine valves to create logic functions

The kit includes assorted cylinders, valves, tubing, t-bolts, a manifold and the aluminum platform.

Matrix Automatics Electro-Pneumatics Add On
$685.00    #A029015

The electro-pneumatics kit is intended to supplement the Automatics Essentials solution by adding a selection of electrically operated valves and sensors. Together with the included curriculum worksheets and teachers notes, this allows students to learn how electrical and pneumatic circuits can work together to form a complete system.

With this kit, students will:
- Understand solenoid operated pneumatic valves
- Use of electrical sensors for circuit control
- Use microswitches as limit switches
- Sequential control circuits

The kit includes a variety of switches, valves, microswitches, leads and a power supply.

Matrix Automatics Compressor
$300.00    #A021050

This desk-mounted compressor is an oil-less piston compressor, with a small electric 1/8HP motor that is designed to operate on the Automatics platform. It is powerful, compact, reliable and quiet. It includes a dial showing the pressure in the output pipe (0 to 100psi), an on/off switch, air outlet switch and an air pressure adjustment knob. The unit is powered from 240V. Requires power transformer—see below.

For those of you familiar with the Silent-aire compressor we used to provide, this one is tiny! It’s 8 inches at the tallest and 10 inches at the widest!

Power Transformer
$65.99    #A007100

Convert 240V to US 110V

Pneumatic Syringe & Tubing
$21.99    #A054284
Learning Resources Products—Ages 5+

Botley® the Coding Robot Activity Set
$102.99  #A055037

Meet Botley, the code to fun! As the newest member of the Learning Resources family, Botley is here to introduce coding in an easy, friendly way. Children as young as 5 can learn to code with Botley. Botley is ready to use right out of the box—he'll have kids coding in minutes. Botley is 100% screen free and includes a 77-piece activity set.

5 AAA batteries required—not included.

Code & Go™ Robot Mouse Activity Set
$82.99  #A055039
Ages 4+

Build your maze and then use the coding cards to create a step-by-step path for Colby, the Programmable Robot Mouse.

Geometric Shapes Building Set
$39.99  #A000800

Create endless opportunities for students to build and explore shapes! Combine sticks in 3 sizes, along with curves for making circles and cylinders, with 2 different types of connectors to build 2-D shapes.

Let’s Go Code!™ Activity Set
$53.99  #A055038

Children will have fun while building gross motor skills by stepping, hopping and turning. This set introduces children to early coding and programming ideas without electronics.

STEM Simple Machines Activity Set
Keep it simple with real STEM learning! Introduce and explore all 6 simple machines.

Both in one Kit
$73.99
#A055036

STEM Force & Motion Activity Set
Get your motor running with real STEM learning! Discover the science of motion through scientific exploration with colorful, engaging tools and hands-on activities.

City Engineering & Design Building Set
$159.99  #A055035

Encourage an early love of STEM learning with this one-of-a-kind City Building Set. Your little engineers can create their own skyscrapers, cranes, bridges and more with 89 easy-to-assemble pieces.
Circuitry/Software Engineering

MaKey MaKey Classic Collection
$66.99  #A055014

Turn everyday objects into a keyboard! Use your imagination and turn a banana into a piano. You can turn anything that conducts electricity into a button or key!

Some examples of things you can use:
- Play Doh
- Pencil
- Chopstick
- Pie Pan
- Aluminum Foil
- Sponge

Digital Sandbox Collection
$98.99  #A055010

The Digital Sandbox is a learning platform that engages both the software and hardware worlds. It’s powered by a microcontroller that can interact with real-world inputs—like light or temperature sensors—while at the same time controlling LED’s, motors, and other outputs.

The Digital Sandbox can be programmed using Arduino. The Digital Sandbox also includes Ardublock, a simple graphical version of Arduino.

The Digital Sandbox Collection also includes the Add-on collection, with a servo-motor, buzzer, stepper motor and Experiment Guide.

Copper Tape—50’
$7.50  #A000204

SparkFun USB Mini-B Cable, 6FT
$5.99  #A008778

See your SmartLab LaunchPad to check out the Software Engineering topics we cover!

Software Engineering topics may also be found in the Liftoff Challenges and Express Challenges sections.
Circuitry/Software Engineering

SparkFun Inventor’s Kit V4.0
$115.99    # A000200-01

The SparkFun Inventor’s Kit is a great way to get started with programming and hardware interaction with the Arduino programming language. The Kit includes everything you need to complete 16 circuits teach you how to read sensors, display information on a LED, drive motors, and more.

The kit does not require any soldering and is recommended for beginners ages 10 and up. For SIK version 4.0, SparkFun took an entirely different approach to teaching embedded electronics. In previous versions of the SIK, each circuit focused on introducing a new piece of technology. With SIK v4.0, components are introduced in the context of the circuit you are building, and each circuit builds upon the last, leading up to a project that incorporates all of the components and concepts introduced through the guide. With new parts and a completely new strategy, even if you’ve used the SIK before, you’re in for a brand-new experience!

Spark Fun Inventor’s Kit Parts Refill Pack
$30.00    # A000201

Make: Getting Started with Arduino
$24.95    # A000202
236 page book

Download Arduino software at: www.arduino.cc

SparkFun Inventor’s Kit Bridge Pack
$27.99    # A000209

Do you already have one of the third versions of the SIK, and you aren’t ready to purchase version 4.0? You’re in luck! The SparkFun Inventor’s Kit Bridge Pack was designed to provide you with an easy way to move into the next SIK edition without buying a whole new kit. Each Bridge Pack includes all of the new parts found in the SIK v4.0 that aren’t in any of the version 3 kits, as well as the most up-to-date, spiral-bound guidebook so you can get started right away.

Note: The Bridge Pack is NOT a full SparkFun Inventor’s Kit and only includes the parts to complement an older version of the SIK to make it compatible with the version 4.0 projects.
### 3D Printing

**Dremel 3D45-01 Printer**

$1,999.00  #A008036  
Mac/Win

We are now providing the newest Dremel 3D45 printer!

WiFi-Enabled, Mobile App available, Ethernet ready, removable heated glass build plate.

Includes a HD camera to monitor your build and capture time-lapse videos.

Uses Dremel brand filament only. In addition to PLA filament, it also can use Nylon and Eco-ABS Filament—currently only available in Black. The printer recognizes the type of filament that’s loaded and automatically adjusts temperature settings.

**Dremel 3D45 Printer Accessory Collection**

$207.99  #A055706  
The Dremel comes with the accessories shown above. In this accessory collection, we add additional tools, glue sticks, gloves, and 2 extra rolls of PLA filament.

**Dremel Glue Sticks**

Package of 3

$7.99  #A008339  
Washable disappearing glue. Goes on purple, but dries clear. The 3D45 uses glue instead of build tape to secure the models to the build platform.

**Dremel 3D20 Build Platform**

$19.99  #A008335  
Is your build platform worn out, or need a spare?

See the **NEW PALETTE 2 PRO by MOSAIC** in the new item section to take your 3D printing to new levels!

Print up to 4 colors on one project!

**Dremel Blue Build Tape Sheets**

Package of 10

$29.99  #A008336  
Use this tape on top of your build plate to keep the plate from scratching. Blue build tape lasts up to 10 prints.

**Dremel Black Build Tape Sheets**

Package of 3

$29.99  #A008331  
Use this tape on top of your build plate to keep the plate from scratching. Black build tape lasts up to 50 prints.
3D Printing

Dremel 3D Filament

Dremel 3D PLA Filament has been specifically engineered for optimal printing with your Idea Builder. PLA is a thermal plastic that softens and melts when it's heated, building your designs strand by strand and layer by layer. The PLA has been designed to melt at a temperature compatible with the Idea Builder, producing a stable, strong object with a high quality finish.

Dremel PLA is plant-based and recyclable.

Many people ask how much filament does it take to make a model? Here's Dremel’s answer:

One spool can create:
- 36 small models
- 14 medium models
- 3 large models

Note: Print amounts are approximate and based on moderate fill. Your print amounts may vary based on quality and fill settings for each model.

Dremel 3D Filament

A008338-BLK—Dremel 3D Black Filament PLA Spool $29.99
A008338-ORG—Dremel 3D Orange Filament PLA Spool $29.99
A008338-PUR—Dremel 3D Purple Filament PLA Spool $29.99
A008338-SIL—Dremel 3D Silver Filament PLA Spool $29.99
A008338-TWHT—Dremel 3D Translucent White Filament PLA Spool $39.99
A008338-WHT—Dremel 3D White Filament PLA Spool $29.99
A008338-BLU—Dremel 3D Blue Filament PLA Spool $29.99
A008338-GRN—Dremel 3D Green Filament PLA Spool $29.99
A008338-RED—Dremel 3D Red Filament PLA Spool $29.99
A008338-PINK—Dremel 3D Pink Filament PLA Spool $29.99

Dremel 3D45 Filament

A008325—Dremel Black Nylon Filament Spool $39.99
A008326—Dremel Black ECO ABS Filament Spool $34.99

For use with Dremel 3D45 Only!
Software—Miscellaneous

Note: We can only sell software to educational institutions, teachers, and students. Proper identification is required. (purchase order, teacher or student id) Download software is non-returnable.

Punch! Home & Landscape Design Premium V20
$99.99  #A750001-05
Windows
Download only

The Punch Home & Design Landscape Suites make designing a home, deck, or your own landscape project easy! Taking your dream home from idea to reality has never been easier than with the newest version of their home and landscape design package! Easy-to-customize room templates with updated object library with over 30,000 design combinations.

Camtasia Studio 9 & 3/Snagit 18 Bundle
$230.99  #A007760-07
Mac/Win
Download only

Save a bundle by purchasing Camtasia & Snagit together! TechSmith Camtasia is a reliable screen recording and video editing tool that helps users convey their message conveniently and effectively. With Snagit, simply capture the screen, customize it with effects, and share it out with students.

Storyboard Quick Ver. 6.1
$299.99  #A006129-02
Mac/Win

Storyboard Quick is the storyboard previsualization tool for rapid and efficient creation of shots, scenes and sequences for media projects.

Create professional storyboards in minutes, using ready-made characters, props & locations.
Software—Graphics and Animation

Note: We can only sell software to educational institutions, teachers, and students. Proper identification is required. (purchase order, teacher or student id). Download software is non-returnable.

**CrazyTalk 8 Pro**
$150.00 #A007744-02 Windows  
$150.00 #A007738-01 Macintosh  
(minimum purchase of 2 licenses) $300.00

CrazyTalk is the world’s most popular facial animation tool that uses voice and text to vividly animate facial images.

CrazyTalk 8 Pro contains all of the powerful features of CrazyTalk 7, plus 3D Head Creation Tools, Auto Motion feature, and smooth lip-synching results for any talking animation projects.

**CorelDRAW Graphics Suite 2019**
$105.99 #A008001-09  
Windows only

CorelDRAW Graphics Suite 2019 is packed with many high-caliber tools for graphics, illustration, layout, tracing, photo editing, font management and more. Enjoy an exceptional design experience using this value-rich suite.

**Animation-ish K-12**

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Price</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$64.99</td>
<td>#A007772</td>
</tr>
<tr>
<td>More than 1</td>
<td>$59.99 each</td>
<td>#A007772-2-25</td>
</tr>
</tbody>
</table>

Download only

Animation-ish is an easy-to-use animation software program that inspires creativity and enables children to “show what they know”. Animation-ish includes three levels that provide students from K-12 (and teachers too!) with a fun, rewarding experience that fosters the ability to animate across the curriculum with confidence. It’s a wonderful presentation tool for teachers and students.

Animation-ish also includes curriculum-based activities aligned to national standards, over 50 “Inspire Me” video clips, “Share” feature for one-click exporting in multiple formats, online animation lessons and more!
Software—Tech4Learning

Note: We can only sell software to educational institutions, teachers, and students. Proper identification is required. (purchase order, teacher or student id). Download software is non-returnable.

**Pixie™**
$39.95  #A005647-01—Single
Mac/Win Download only

Volume licensing is available direct from the manufacturer.

Pixie is exciting creativity software students can use to share ideas, imagination, and understanding through a combination of text, original artwork, voice narration, and images.

Pixie engages students in their learning, and motivates a wide range of learners.

**Frames 6**
$39.95  #A001034-03—Single
Mac/Win Download only

Volume licensing is available direct from the manufacturer.

Frames is the premier tool for turning images into animations. Creating animated movies with Frames engages students, giving them ways to collaborate and communicate.

With Frames, you can add text, shapes, and transitions to animations. You can also import sound tracks and record original narration, and you can use chroma key to layer images.

**Claytoon Claymation Kit**
$90.99 #A055162-01

Nothing engages students more than creating clay animation movies. Using the Claymation Kit, a digital camera, and their imagination, students can showcase their knowledge and creativity in an extremely motivating and visual activity. Your students will love using clay animation in cross-curricular group projects that incorporate writing and technology skills.

The Claymation kit includes: Claytoon Clay Project Studio, additional plasticine clay, and a 3-drawer container to Put it all in!

**Claytoon Claymation Refill Kit**
$18.99 #A055163
Includes six 1/4 lb blocks of clay

**Claytoon Clay Project Studio Kit**
$63.00  #A001038

This kit includes non-hardening modeling clay, 12 project cards, 8 sets of “bendy bones”, 5 modeling tools and a clay knife.

**Fab@School Maker Studio**
#A007773—single $29.99
#A007773-2-25—multiple $25.99 each

Digital Design and Fabrication Software. Easy to implement 3D printing in the classroom. Easier and more affordable to ***This is a one year license ****
Hardware and Accessories

Wacom Intuos Creative Pen Tablet
$79.95 #A007805-04
Mac/Win
This tablet is designed for those who are drawing, painting and photo editing with their Mac or PC. The Wacom Intuos is easy to setup and use, and includes either Corel® Essentials or Corel® AfterShot.
Active area 6.0 x 3.7” inches.

Portable Photo Studio
$89.99 #A009069-01
All-in-one photo studio that’s easy to set up and easy to transport. Durable white diffusion material allows all-angle lighting. Includes hanging Velcro for creating gradient light-curve backdrop. Includes 2 LED lights, 2 light stands, 1 tripod, 4 color backdrops, 3 diffuser screens and 1 carry bag.

Xbox 360 Controller, Wired
$59.99 #A008102
Windows only
We use the Xbox 360 Controller with the Kodu Learning Launchers for game design. Includes a nine foot cable.

USB Snowball Microphone
$99.00 #A008420-A
The Snowball is a direct plug n’ play microphone that connects to either a Mac or PC—no additional software required.

Have you tried the new “Google Translate” and “Text-to-Speech” functions of the updated LaunchPad? See the instructions under “Facilitator Resources” on the Admin LaunchPad.
**Padcaster® Collection**

$3,299.99        #A059039

Student video broadcasting anywhere!

No need to plug anything in! This is a broadcast on the go using popular 3rd party livestreaming solutions like Youtube Live, Ustream, etc.

Streams directly to the TriCaster in existing studios for remote broadcasting!

Portable—everything you need fits in a convenient backpack

**Features:**
Teleprompting
3 types of high-quality microphones to choose from depending on your video shoots audio needs
Add titles to the video just like a professional newscast
Green screen capability for creating custom video backgrounds

---

The CLS Padcaster® Collection includes:

- iPod Touch—Mini Teleprompter
- iPad pre-loaded with over 50 productivity Apps
- 2-Port portable USB battery pack
- Padcaster® Case
- Lens Bracket with 72-58mm step-down ring
- Compatible wide-angle lens
- Padcaster® Unidirectional microphone
- Dual mic and headphone cable
- Stick Mic with Clamp System
- Lavalier microphone
- LED light system
- Tripod—w/dolly
- Green screen
- Backpack for portability

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Padcaster® curriculum is now available!
Student Broadcast Studio - Curriculum now Available!

The Student Broadcast Studio is a full-integrated, professional-grade video production platform developed specifically for school applications. Every Student Broadcast Studio is custom designed in collaboration with each school to meet their specific video production and educational objectives.

Student Broadcast Studio

The Student Broadcast Studio offers all the power of a professional, live-editing video studio in a portable, easy-to-operate system.

The Student Broadcast Studio features a digital audio/video mixer that seamlessly integrates live or recorded input. It includes two professional-quality video cameras and a computer workstation with DVD recorder and flat-panel monitor array. An integrated video converter creates digital video streams suitable for live or prerecorded webcasts of school events.

The system’s digital mixer allows students to create dynamic, professional video productions. Transitions, fades, wipes, virtual sets and other effects are created easily and on-the-fly. Students will use the robust video-editing suite and computer workstation to create amazing post-production video effects.

The entire system is housed on a seventy-two inch workstation that includes rugged, oversized casters and rack-mount enclosures. Everything on the Student Broadcast Studio is securely mounted, allowing learners to freely move the system around the school without risk of injury or damaging equipment.

Chroma-Key Virtual Set System

Once possible only in expensive studio settings, the Student Broadcast Studio incorporates the very latest in chroma-key technology to create virtual sets and backdrops—maintenance free and for a fraction of the cost!

The Student Broadcast Studio uses LED light rings and a specially-designed reflective gray screen to create these sophisticated effects in a portable, easy-to-use system.

Teleprompter System

Ever wonder how television news anchors can read a script without ever looking away from the camera? Teleprompter technology allows prewritten scripts to scroll over specially-designed screens placed directly in front of the camera lens.

The Student Broadcast Studio teleprompter system allows students to use this professional production technique easily and economically. It’s a terrific way to build reading and writing skills while adding even more professionalism to video productions.

Each integrated system is custom designed to meet the specific needs of each school and prices ranges described above have been established to accommodate most common configuration options. We look forward to collaborating with you to design a system specific to your video production and learning objectives. Creative Learning Systems will then provide you with a detailed system and pricing proposal for your Student Broadcast Studio.
## Parts & Pieces

### Pneumatics

If you are looking for replacement parts for the pre-2018 Pneumatics Kit, please contact Customer Support for pricing and availability.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Price</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>SLC Fog-in-a-Can</td>
<td>$20.00</td>
<td>A006368</td>
</tr>
<tr>
<td>Tee Connector, 1/8 in</td>
<td>$14.00</td>
<td>A007085</td>
</tr>
<tr>
<td>Plastic Tube Cutter</td>
<td>$15.00</td>
<td>A007075</td>
</tr>
<tr>
<td>T-Bolts 27MM w/retaining sleeve</td>
<td>$59.99</td>
<td>A020581</td>
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<tr>
<td>Push Ring Tool</td>
<td>$25.00</td>
<td>A006338</td>
</tr>
<tr>
<td>Pneu Self Sealing Connector</td>
<td>$14.85</td>
<td>A007602</td>
</tr>
</tbody>
</table>

Note: These connectors are for use on pneumatic service module.

### Accessories

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Price</th>
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</tr>
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<tbody>
<tr>
<td>Tube Fitting—1/8 Metric Thread</td>
<td>$6.00</td>
<td>A007080</td>
</tr>
<tr>
<td>SLC Mousepad</td>
<td>$7.50</td>
<td>A000113-03</td>
</tr>
<tr>
<td>Plastic Tube Cutter</td>
<td>$15.00</td>
<td>A007075</td>
</tr>
<tr>
<td>CLS Score Sticker—Pack of 20</td>
<td>$20.00</td>
<td>STICKER-SCORE</td>
</tr>
</tbody>
</table>

If you have a 2017 or newer score, you can use these stickers and templates that are found under “Facilitator Resources” in the LaunchPad to customize your score.

See your laser beam special effects! (Cannot be shipped via air)
SMARTLAB® SUMMER CAMP KITS

STEM Summer Camp Kits for less than $25 per student.

As the demand for talented coders, game developers, robotics engineers, and designers continue to increase, more and more families search for world-class STEM education via summer programs. Summer offers a unique opportunity for students to engage in STEM learning that mirrors real-world needs, and can help you reach a wide range of students who might not otherwise have access to STEM learning opportunities.

We've made it easy to scale your SmartLab® provisions to accommodate up to 120 students with our STEM Summer Camp Kits. Students will have opportunities to learn hard skills for future careers and foster valuable 21st-century life skills like problem-solving, creativity, and collaboration. You can use the additional funds to pay for the CSA, additional resources or even towards a new lab.

<table>
<thead>
<tr>
<th>What's Included</th>
<th>Elementary</th>
<th>Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kits &amp; Resources</td>
<td>Grades K-5</td>
<td>Grades 6-10</td>
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<tr>
<td>Scope &amp; Sequence</td>
<td>All 8 Systems of Technology</td>
<td></td>
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<tr>
<td>Scores</td>
<td>For up to 4 Classrooms</td>
<td></td>
</tr>
<tr>
<td>Training/Consultation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>TOTAL COST</td>
<td>$2450</td>
<td>$2750</td>
</tr>
</tbody>
</table>

Each room will receive a Summer Camp Score and additional resources to support a group of 30 learners. Online webinars cover topics on how to promote, fund, and facilitate your summer camp. Additional kits may be required after a review of your existing resources. Shipping costs not included.

Elementary #A055200 $2,450.00
Middle #A055201 $2,750.00
For Catalog Orders

bkratochvil@clsonline.com

or

Brian Kratochvil at 1-800-458-2880 Ext. 141

A child’s level of learning, today, measures their level of career success in the future! We, at CLS, can help you, to help kids, build a better tomorrow!

Send purchase orders to:

Creative Learning Systems
1801 Lefthand Circle, Suite A
Longmont, CO 80501
Fax 303-772-6422

Or e-mail: bkratochvil@creativelearningsystems.com