S.T.E.A.M.

SCIENCE KITS

EDUCATIONAL MEDIA LIBRARY

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ADVANCED SEARCH IN SNAP, SELECT MEDIA TYPE STEAM TO ACCESS ALL TITLES

ST 22
MiP ROBOT

Grades 3-8

PRODUCT SUMMARY:
- Equipped with seven different game modes and a free app
- Balances on two wheels
- Responds to the swipe of a hand
- Can carry objects with the included tray table
- Can learn up to 50 pre-programmed sequences
- Dances to your iTunes Library
- Can battle other MiPs in a game of laser tag

GESTURESENSE
GestureSense allows your WowWee robot to respond to gesture-based interactions like swipes, claps, touch and more.

BLUETOOTH LOW ENERGY
BLE allows your WowWee product to seamlessly connect to and interact with your smart devices.

SOUND DETECTION
Sound detection system allows your WowWee robot to react to noises in its environment.

APP ENABLED
Free app provides control and/or enhanced gameplay on your smart device.
Pi-Top

The First DIY Laptop

ST 26

Grades 3-8

Modular Design

Pi-Top is the first DIY laptop on the market. Building the laptop will teach you the basic architecture of the computer. It’s fitted with the Modular Rail which you can plug in Pi-Top Add Ons to make it truly unique. You can even replace its micro processor when a new one comes out.

Integrated Lesson Plans

Every Pi-Top has access to our cloud based worksheet repository created by educators from all over the world. These worksheets act as step by step guide that take leaners from novices all the way to making complex programs and hardware.

What does Pi-Top teach?

All Pi-Tops come with CEEDuniverse preloaded, an interactive game that teaches you how to code, build circuits, and make hardware that interacts with the game in real time.

INVENTORY

SCREEN
BASE TOP
CHASSIS
HUB
RASPBERRY PI 3
MICRO COMPUTER
(6) CABLES
HARDWARE
Finch is a small robot designed to inspire students as they learn computer science by providing them a tangible and physical representation of their code. The robot supports over a dozen programming languages, including environments appropriate for students as young as five years old. It’s the perfect tool to catalyze a wide range of computer science learning experiences, from an entry into the basics of computational thinking all the way to writing richly interactive programs.
ST 2 CUBELETS (12)

ST 3 CUBELETS SET OF (20)

GRADES PK-K

THE ROBOT RECIPE.
There are three key ingredients you need to make a Cubelets robot:

SENSE Cubelets are inputs. They take in information like light, distance, and temperature.

THINK Cubelets are little brains. They process information and send signals in the right direction.

ACT Cubelets are outputs. They do things like make sounds, spin around, and light up.

Colorful Cubelets blocks are an ideal introduction to the world of robotics as they feature modular pieces that snap together using super strong magnets – no wiring or coding necessary. Each of the 17 blocks has a unique function special to its repertoire, recognizable by their different colors and designs. The blocks are separated into three types based on their functions: Sense, Think and Act. Kids can use a battery block to power their robot, for instance, or add a flashlight block to light its way!

CUBELETS 12 contents:

- 2 Drive Cubelets
- 1 Rotate Cubelet
- 1 Flashlight Cubelet
- 1 Brightness Cubelet
- 2 Distance Cubelets
- 1 Blocker Cubelet
- 1 Inverse Cubelet
- 1 Passive Cubelet
- 1 Bluetooth Cubelet
- 1 Battery Cubelet
- 1 Micro USB Charging Cable
- 2 Brick Adapters (1 Stud, 1 Socket)
- Unlimited access to lesson plans and activities on the vendor’s web site
The Creative Constructors Pack facilitates easy adoption and high-ceiling academic activities with enough Cubelets to support 4 working groups. Programming challenges and remote control races are a snap because each group can utilize their own Bluetooth Cubelet.

Includes (56) Sense, Think and Act Cubelets:

- Sense Cubes: (6) Battery, (4) Brightness, (8) Distance, (2) Knob
- Think Cubes: (4) Passive, (4) Inverse, (4) Blocker, (2) Threshold
- Action Cubes: 980 Drives, (4) Flashlight, (4) Rotate, (2) Bar Graph
- Accessories: (8) Brick Adapters (2 sets of 4), (4) Bluetooth Cubes, (1) 5-Port Charger, (5) Charging Cables and (2) Storage Totes.
SNAP CIRCUITS BEGINNER SET ST 5

This kit includes 14 parts and you can build more than 20 projects, learning the basics of how switches and circuits work. Plus the skills needed to complete, troubleshoot and solve problems and enjoy the satisfaction of a job well done. The included color manual was created just for younger "engineers" with very few words and lots of step-by-step diagrams. Parts have extra safety features integrated for safety.

We also have the following:

Elenco Electronics Snap Circuits Snaptricity SK 557

Elenco Electronics Snap Circuits Sound SK 584

Elenco Electronic Snap Circuits SK 574

Grades 2 and up
Snap Circuits Pro’s components provide students ages *+ with hands-on experience designing and building models of working electrical circuits. You can build over 500 experiments by following the (3) illustrated manuals that are included and available online. Make projects such as AM and FM radio, record your own voice, relay buzzers, music meters, motor sound recordings and many more. Contains over 75 snap-together parts. Awards: The National Parenting Center of Approval, Dr. Toy 100 Best Children’s Products. Warning! Choking hazard for children under 3 years old.

SNAP CIRCUITS EXTREME

ST 19

Extreme Version - Contains over 80 parts to build over 750 projects. Includes everything from SC-500 plus projects in solar; electromagnetism; vibration switches; and 70 computer interfaced projects. Includes Projects

Grades 2-Adult
Roominate is an award-winning and customizable line of wired building systems that inspire open-ended, hands-on play. Using circuits, modular building pieces, girls can build and create their own unique and original structures that can be joined together or taken apart and re-made into something new. The wired Cozy Corner Café set allows children to build their café however they want. Use the motor to make a working, spinning ceiling fan, or design something else. Warning: Choking Hazard for children under 3 years old.

**Contents: Bag #1**
(2) Lime Green Panels  
(4) Pink Columns  
(1) Orange Umbrella  
(1) Blue Disc  
(1) Yellow Canopy

**Contents: Bag #2**
(30) Building Pieces

**Contents: Bag #3**
Contents Bag #3

**Contents: Bag #4**
(1) Axle  
(2) Additional Contents  
(2) Dolls  
(1) rPower Hub and (2) cables  
(2) AAA Batteries/ Battery Holder  
(1) Motor  
(2) Instruction pages

Includes a Motor  
Use the motor and battery pack to add motion to your café.
MaKey MaKey is an invention kit that encourages students to find creative ways to interact with their computers, by using everyday objects as a replacement for a computer’s keyboard and mouse. Expand students’ imaginations and creativity as they test for natural conductivity by connecting objects to the touchpad with the alligator clips. MaKey MaKey illustrates core concepts of electricity and conductivity while stimulating creative solutions. Optional equipment needed: a laptop to interact with Makey Makey

The kit will include everything you see above: Makey Makey, Alligator Clips, USB Cable.

How Does It Work?

When you touch the banana, you make a connection, and Makey Makey send the computer a keyboard message. The computer just thinks Makey Makey is a regular keyboard (or mouse). Therefore it works with all programs and webpages because all programs and webpages take keyboard and mouse input.

Any material that can conduct at least a tiny bit of electricity will work. Here are some materials people have used in out workshops including Ketchup, Pencil Graphite, Finger Paint, Lemons, Plants, Coins, Your Grandma, Silverware, anything that is wet, most foods, cats and dogs, aluminum foil and rain.
GRADES PK-K

OSMO GENIUS KIT ST 15

Comes with Mini iPad, USB Cable/Adapter.

- Osmo is a gaming accessory for the iPad that comes with 5 games that foster learning in key areas such as social-emotional skills, creative thinking and STEAM. Kids are challenged to solve simple problems by supplying color-coded values in order to advance, realizing that the correct color combination unlocks a goal. The game system mixes physical play with basic coding by changing the way your student uses the iPad by involving hands-on play. Games include Tangram, Words, Newton, Masterpiece and Numbers. Teach numerous skills including logic, problem solving, spatial-relational, spelling and critical thinking skills. Designed for kids 5-12

Tangram - (7) Tiles
Numbers (20) Numbers (20) Die pieces
Words (52) tiles
(2) pages of Instruction
(3) Base and Reflector

Tangram

Arrange wooden puzzle pieces to match on-screen shapes. Animals, objects, humans and more. Play with a friend or challenge yourself to increasingly more difficult levels as your Handiwork lights up with each victory.

Numbers

Add, count, and multiply the tiles to match the umbes on the bubbles. Popping enough bubbles will free the fish and unleash a storm of lightning and thunder.

Words

Guess and spell the on-screen image. Team up or compete in person with other students to see who will get their letter in first. Download free content like trivia and geography.
Expert inventors and novice designers will find the inspiration used to solve STEM-heavy challenges in the real world. The ultimate learning toolbox helps teachers spark unmatched levels of creativity in inquisitive students with the potential to hand build tools that drive, slide, buzz and blink. With the snap of a circuit, kids can enter an era designed to spark meaningful, beneficial and future-facing fun! By tapping their creativity and building on previously developed skills, the Gizmos & Gadgets Kit helps ensure children build the invention skills necessary to thrive in the real world. Sent with 2-9 volt batteries in the original Gizmos & Gadgets box with cut-outs for bits. Note 2- 9 volt batteries
LITTLEBITS CLOUDBIT STARTER KIT

ST 10

Get an intro into creating your own smart devices without programming, soldering, or wiring. Create a doorbell that texts you when someone’s buzzing, or an umbrella-reminder that’s synced with the weather!

GRADES 5 and 6

6 BITS & 2 ACCESSORIES

- button
- cloudBit™
- long led
- servo
- sound trigger
- usb power
- mounting boards
- USB Power Adapter + Cable
**LITTLEBITS KORG SYNTH KIT**

ST 6

Grades 3-8

CREATE
YOUR OWN INSTRUMENTS AND ELECTRONIC MUSIC.

Both kids and professional musicians can explore the science of sound, make sweet beats and create instruments with this award-winning modular synthesizer. Co-designed with world-renowned electronic music maker KORG.

**MAKE SOMETHING THAT TEACHES SOMETHING**

littleBits brings you powerful ways to explore Earth and Space science in the classroom. Designed in collaboration with NASA Scientists and Engineers, the kit has (12) modules, (5) NASA lesson plans and (10) S.T.E.A.M. activities.

Learn scientific principles like Electromagnetic, Kinetic, and Potential Energy. Make a Mars Rover or an ISS; transmit music wirelessly and more. Connect with the littleBits library to expand your discoveries.

**LITTLEBITS SPACE KIT**

ST 7

GRADES 2-6
Inspire future developers and inventors with the Arduino kit from littleBits. It includes everything needed to get started in this interactive coding world.

- For ages 14+
- Includes power module, battery with cable, servo, bar graph, two dimmers, button, Arduino module, micro USB cable, two mounting boards, instruction card
- Comes with basic instructions to get started on creating 8 sketches using Arduino programming
- Plugs into a computer
- Dimensions: 5” x 7” x 3”
- WARNING: CHOKING HAZARD—contains small parts (as received)
LITTLEBITS DELUXE SET

ST 11

Creating the next generation of problem-solvers,
Empowering everyone to be an inventor.

Contains:

- 18 Powerful Modules
- Over 1 million circuit combinations possible.
- Includes booklet of 15 projects and with hundreds more projects online.
- Create popular projects like a GoPro Revolver, Light-U Shoes, Voice Activated Lego car, drink stirrers, art robots and more.
- No soldering, wiring, or programming required.
What’s In The Box:

- Sphero SPRK+
- Inductive Charging Base with USB Charging Cable/USB Power Adapter
- Maze tape
- 360 degree protractor and sticker sheet
- Quick Start Guide

Tech Specs:

Super durable UV coated polycarbonate shell

Blue tooth (100 ft range)

Goes over 4.5 miles per hour

Built-in LED Glow

Inductive charging with over 1 hour of play on a full charge

App and firmware updates that introduce new features
The SPRK+ Power Pack is a kit for educators to use in a classroom, robotics club, or in any maker environment. Built with an integrated cooling system, your robots can charge all from one place. Learn coding through play with the Sphero SPRK+ robot kit. SPRK+ and the Lightning Lab app work together to introduce programming, robotics and other STEM principles. Teach the robot to navigate a maze, swim or paint, and collaborate with others around the world to share knowledge. Comes with (12) robots, charging case and power adapter, maze tape and protractors, classroom posters, clear turbo covers and quick start guide. To setup, download the app and create an account. Lightning Lab is available for IOS, Android and Kindle.

SPRK Lightning Lab Lessons, here: https://sprk.sphero.com/cwists/category
The Hummingbird Duo Base kit has everything you need to build a robot, just add craft materials!

Hummingbird is a uniquely engaging robot that stimulates student excitement with programmable bots they can construct themselves. Designed to enhance engineering and robotics know how, the hummingbird helps guide students on a journey of meaningful making that includes robots, kinetic sculptures, and animatronics. Aside from the motor and digital components, much of the Hummingbird is composed of student-built materials, like cardboard, paint, and glue, giving students a unique opportunity to combine S.T.E.M. and S.T.E.A.M. Built for collaboration in classrooms that enjoy group work.

The Hummingbird Duo Base kit has everything you need to build a robot, just add craft materials!

- One Hummingbird Duo controller
- Power supply, USB cable, terminal tool, snap-in stand-offs
- Red, orange, yellow, and green single-color LEDs
- Two tri-color LEDs
- Two hobby servos and one servo extension cable
- One light sensor, and one temperature sensor
- Program in everything from Scratch to Java!

Once you have a kit, check out our free software, tutorials, and recipes.
LightUp teaches student how to explore their world with electronics and code. Build exciting projects by snapping together magnetic circuit blocks, and then use the LightUp Learning app (for iPad) to interactively learn important S.T.E.M. concepts about circuits, programming, and engineering. The app includes introductory projects to get started, with new project ideas added every week. LightUp Lens, the in-app augmented reality feature, helps students out when things don’t work, and even gives them X-ray vision by letting them see electricity flow. The LightUp Tesla Kit empowers students to build the projects only they can dream up. Equipment Needed: 1 iPad (for reference)

LightUp blocks included: Rechargeable Battery, Bluetooth Microcontroller, Speaker, Light Sensor, Momentary Switch, 5k Resistor, Wire blocks (7), Micro USB Cable.
This littleBits education kit is the easiest way to integrate powerful STEM/STEAM learning into your classroom. It includes everything you need to engage up to (4) students and develop their 21st century skills. Including 16+ hours of lessons.

8 FUN CHALLENGES (more challenges and inventions on the app)

**Invent A Self-Driving Vehicle**—Inspire students to design an electric car of the future as they experiment with motion and stability.

**Invent An Art Machine**—Engage students in engineering design as they build their own Automatic artistic assistant.

**Invent A Throwing Arm**—Teach forces of motion and simple machines through a fun game of projectile-launching.

**Invent A Security Device**—Explore environmental sensors with students as they create alarms that safeguard their stuff.

**Hack Your Classroom**—Challenge your class to think critically and create electronic solutions to problems they see in the classroom.

**Invent For Good**—Inspire students to help others by thinking creatively and creating simple machines to change the world.

**Chain Reaction Contraption**—Channel Rube Goldberg as your class creates a cause-and-effect machine using engineering skills and systems thinking.

**Hack Your Habits**—Develop students’ critical thinking skills as they produce prototypes to make an aspect of life
meeperBot 2.0

The meeperBOT is a remote control toy unlike any other. It encourages deep thinking and creativity, and bridges physical and digital learning. The studded platform accepts LEGO®, Mega Bloks® and other brick blocks.

The best part is that the platform’s 2 embedded, real-wheel 300 RPM motors “talk” with a smartphone or tablet through a free meeperBOT Controller App. The device becomes the remote control and creations transform into drivable masterpieces on wheels. Devices must be Bluetooth® enabled. The Controller App is Apple and Android compatible and has modes for single and multi-BOT operations. Up to 8 BOTS can be controlled at once. The Controller App also offers 3 drive modes: touch, power leash and tank for different driving missions.

Made of ABS plastic. Features front hitch, back hitch and removable wheels for unlimited inventing potential. One 9V battery included.

- Constructed of ABS plastic
- 2 embedded, real-wheel 300 RPM motors
- Features front hitch, back hitch and removable wheels for unlimited inventing potential
- One 9V battery required per BOT (not included)
- Combo Kit includes 1 meeperBOT, 1 extra set of wheels and 1 extra set of axles

Download the meeperBots App in the Apple App Store or Android Google Play.

ON your phone or tablet, turn on your Bluetooth.

Launch the meeperBot App. It will automatically scan for BOTS

Install the 9-volt battery in your BOT.

Turn on your Bot (switch on the bottom).

Select the BOT to connect to and start playing.
mBot

ST 21

Grades 1-3

Introduction

mBot is an easy-to-run robot kit for students to get hands-on experience about graphical programming, electronics, and robots. Designed for robotics learning and S.T.E.M. education.

Features:

• Easy to assemble within 10mins

• Electronics are based on Arduino open source platform

• Supports iOS&Android App. Suitable for individual users and family

• Two programming tools: Arduino IDE and mBlock, a drag-and-drop programming tool based on Scratch 2.0

• Bluetooth or 2.4GHz wireless module included, without wire limited

• Easy and intuitive wiring with color-coded RJ25 connector

• 2 mm thick aluminum chassis, strong and compatible with Makeblock & Lego parts

• Free lessons are provided and increasing continually

• Achieve different fun projects like wall avoidance, line following, games with other mBots, using sensors to play games in Scratch.
DOT & DASH
Teaching Kids To Code

SK 598
Grades PK-5

Dot

Dot is the brains of a robot. Dot comes with several games built in, such as Magic Dot Ball, Dot of Music, and Light Sword. Using free apps Wonder and Blockly, you get to make over a hundred more games with instructions in the apps.

Dash

Dash is a real robot, charged and ready to play out of the box. Responding to voice, navigating objects, dancing, and singing, Dash is the robot you always dreamed of having. Use Wonder, Blockly, and other apps to create new behaviors for Dash -- doing more with robotics than ever possible. No books or camps needed!

Students as young as age 4 can start learning foundational STEM concepts by programming Wonder Workshop’s Dash robot using a Puzzlets accessory fro Digital Dream Labs. Puzzlets are icon-based, physical tiles that students can manipulate with their hands. Digital Dream Labs created this custom version of Puzzlets to make Dash move, light up, and make sounds. The Bluetooth Play Tray connects wirelessly to Dash, allowing students to go screen-free while programming their robot. No mobile device needed.
Bee Bot is an exciting new robot designed for use by young children. Colorful, easy-to-operate, it’s the perfect tool for teaching sequencing, estimation, and problem-solving. Enter up to 40 commands with directional keys to send the Bee-Bot forward, back, left and right. Press GO to start Bee-Bot on its way. Bee-Bot blinks and beeps at the conclusion of each command to allow children to follow the robot through the program they have entered and then confirms its completion with lights and sounds.

Contains:

(6) Bee Bots  Docking Station for charging  Bee Bot Carrying Backpack  Power adapter
Everything you need to bring Ozobot into your classroom in one box. Simple, affordable and desk-friendly, this kit is designed for any grade K-12. Supporting apps, flexible programming environment and lesson plans make it easy to integrate Ozobot into any curriculum – STEM and beyond.
SNAP CIRCUITS
SOUND
SK 584

- Keyboard with optical Theremin
- Voice changer, Record voice or music and play it back at different speeds
- Sound energy demonstration and Color changing light
- Creates Echo effects
- Connect to your smart phone and analyze sounds with apps
- Explore both sound and electronics with this innovative kit
- Projects include, an Optical Theremin, Echo effects, Voice changer - Record voice or music
- Connect the unit to your smart phone and analyze sounds with downloadable apps
- Color organ controlled by iPod or other MP3 player, voice or finger
- Includes full-color manual with easy to follow instructions
- Hands-on introduction to electronics
- Make real working circuits and devices
- Make over 175 projects with over 55 color-coded circuit components
- Plug in your iPhone or Android phone or any MP3 player and see your circuits react
- Snap Circuits have received several AWARDS: National Parenting Center- Seal of Approval, Dr. Toy 100 Best Children's Products, Dr Toy Best Educational Products
Most activities are scalable in complexity, so it’s appropriate for all grades, K through 8. Plus, it encourages collaboration, so players of all ages — parents, relatives, teachers, students and their friends — can build and play games together.
A computer anyone can make. With simple steps and a storybook, build your own computer and bring it to life. For ages 6+ (no technical skills required).

With playful projects and challenges you'll learn to code art, music, apps, games and more.

Trusted by over 700 schools and code clubs. Winners of the Family Choice Award, Webby Award, Red Dot Award, Cannes Gold Lions and more.

Includes everything you need. Raspberry Pi 3, case, speaker, wireless keyboard, memory, HDMI and power cables, coding challenges, stickers and lots of apps.

Connect to any HDMI screen.
With this kit, you can learn about alternative energy and sustainable living by conducting 100 experiments and building energy-related models. Build the Power House and then conduct experiments in and around the house. Learn about energy-efficient construction materials and passive house design. Experiment with heating, cooling, conduction, convection, and insulation. Investigate Earth’s climate, the water cycle, and that inexhaustible power plant in the sky: the sun. Test passive solar collection methods with a solar collector. Hook up a photovoltaic solar panel to generate electricity from sunlight. Build wind turbines to extract energy from the wind. Construct a greenhouse and learn about the energy conservation tricks used by plants. Power House provides a comprehensive overview of the many forms of alternative energy, and makes environmental protection and energy conservation issues tangible with hands-on models. The 64-page, full-color experiment manual provides instructions, scientific explanations, and energy-saving tips. Ages 10 and up.

KEVA CONTRAPCTIONS 200 PLANK SET  
ST 30

Students will experience the basic principles of physics and engineering while creating intricate tunnels, towers, ramps, and chutes with this interactive STEM tool.

Comes with 200 KEVA planks, detailed guide book with project photos and quick-start instructions, and two specially designed bouncy balls that are lightweight for maximum action. Creative Child Magazine Educational Toy of the Year Award.

KEVA MAKER BOT MAZE  
ST 31

The KEVA Maker Bot Maze lets you experiment, innovate and create with KEVA planks and a variety of doodads and gizmos. Customize a pair of motorized bots using crafty items found within this kit. Then construct your maze’s tunnels, doorways, passages and obstacles from the KEVA planks and connectors, or by gathering things you have around the classroom. Includes 30 KEVA planks, 8 KEVA half planks, 25 connectors, 2 motorized bots, 6 tumble blocks and 3 bumper balls. Also contains googly eyes, pipe cleaners, feathers, pom-poms, glue dots, tape, string, felt and craft foam. Ages 7 and up.
At its simplest, the Breakout EDU toolkit takes the appeal of the “escape room,” a recreational team sport in which a group of students use their wits to break out of a locked room, and turn it inside out. Instead of a locked room, teams must figure out how to get inside a tightly locked box. The kit provides the basic materials to present puzzles for students to decipher, each clue leading to another, and ultimately to the locked strongbox. These activities teach teamwork, problem-solving, critical thinking, and troubleshooting with minimal setup. Includes: Tool Box, 5-letter Word Lock, Directional Lock, Letter Word Lock, Keyed Lock, Lock Hasp, Mini Blacklight Keychain, Blacklight Invisible Ink Pen, Pencil Case, Wooden Puzzle Box, Blank Puzzle, Break Out! EDU signs and Hint Cards.
PARROT MINI DRONES: BLUE ROLLING SPIDER (Set of Five) AV 32

The blue Rolling Spider Mini Drone from Parrot can fly, roll along the floor, climb walls, and even traverse the ceiling. It is a 5.5”-diameter mini quad copter that includes a pair of removable wheels for added fun, plus an embedded vertical mini-camera to take snapshots. No special controller is required - the Rolling Spider is operated by a mobile app and your smartphone. Contains: (5) Mini Drones, (5) Axles, (10) Wheels. (5) batteries, Quick start guide and user guide.

If you do not have a smartphone, please call or email the Media Library to order (5) iPods or tablets.

800 Maple KEVA Planks
(1) Guide Book (1) Educator’s Guide
(2) Flyer-Teaching Art with Keva Planks
(1) Flyer - Stem Any Time, Any Place
(8) Laminated Cards (10) Ping Pong Balls
(4) 3D Challenge Starter Cards:
Simple, Kinetics, Advanced, Structures

St 30
Keva Contraptions
200 Plank Set

Fostering unlimited creativity and experimentation, KEVA planks build an early understanding of proportion and balance, while teaching basic principles of physics and engineering. No glue, no connectors—just loads of constructive fun! Includes 800 identical wooden planks, 2 specially designed lightweight balls for maximum action and an 18-page idea book with project photos and quick-start instructions. Support STEM education.
POWER HOUSE
ST 29

With this kit, you can learn about alternative energy and sustainable living by conducting 100 experiments and building energy-related models. Build the Power House and then conduct experiments in and around the house. Learn about energy-efficient construction materials and passive house design. Experiment with heating, cooling, conduction, convection, and insulation. Investigate Earth’s climate, the water cycle, and that inexhaustible power plant in the sky: the sun. Test passive solar collection methods with a solar collector. Hook up a photovoltaic solar panel to generate electricity from sunlight. Build wind turbines to extract energy from the wind. Construct a greenhouse and learn about the energy conservation tricks used by plants. Power House provides a comprehensive overview of the many forms of alternative energy, and makes environmental protection and energy conservation issues tangible with hands-on models. The 64-page, full-color experiment manual provides instructions, scientific explanations, and energy-saving tips. Ages 10 and up.

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KEVA BRAIN BUILDERS

ST 32

The kit contains full-color double-sided cards including a 2-D building challenge on one side and the solution on the other. The goal is to recreate 2-D patterns into 3-D structures. Manipulate your KEVA planks to successfully duplicate the balance, proportion, composition and geometry featured on each card. Includes 20 KEVA planks, 30 double-sided cards and instructions in each zippered carrying case. Ages 8 and up.

MAGFORMERS 124 PC. MATH ACTIVITY SET

ST 33

Magformers 124 pc. Math Activity Set stimulates learning through magnetic construction. Aligning perfectly with STEM education, the activities utilize the attracting magnets to solve math problems, such as, patterns, addition and subtraction and 2D nets to 3D structures. Contains (12) Geometric shapes including Trapezoid, Diamond, Pentagon, Super Square, Super Triangle and Hexagon, and 50 page Math Book.

ZOOMTOOL S.T.E.A.M .SYSTEM KIT

ST 33

Zoomtool is a hands-on advanced geometric construction system to aid students in understanding patterns related to meaningful concepts in Science, Technology, Engineering, Art and Math. Concepts such as proportion, fractals, symmetry, chirality, minimal surfaces, polyhedra, stellations, tessellations, trusses, lattices and space frames. Zoomtool took the best features of their Advanced Math, STEM and Classroom Kits and condensed them into this compact and powerful kit. Build hundreds of models from simple shapes to complex 3D structures with the shape-and-color coded system. A colorful, informational instruction manual is included.
This Osmos Creative kit for the iPad lets the tablet see what’s in front of it so that your child can draw, design and play while interacting with the various apps included. This kit encourages drawing, coding and shape recognition in order to advance your child’s skills. Included are a creative board, Osmos base, iPad, Yoobi dry erase markers and pouch that work with the tablet’s camera to transport objects and drawings into digital environments. The (3) game apps included are Monster, Newton, and Masterpiece. Ages 5-12. Best Toy, 2016 Oppenheim Platinum Award.

OSMOS CREATIVE KIT
SK 670

WARNING
CHOKING HAZARD: Small parts included.
Not for children under 3 years old.

OSMOS GENIUS KIT
SK 671

Six award-winning games that transform your iPad into a hands-on learning tool

- Turns core subjects, like math (Numbers) and spelling (Words), into fearless fun
- Coding with Awbie contains (19) Coding Blocks.
- Encourages visual thinking (Tangram), problem solving (Newton), and creative drawing skills (Masterpiece)
- Designed to adjust to kids aged 5-12 skill level. Toy-Of-The-Year-2015|TIME-Best-Inventions-of-2014
- Genius Kit comes with the Osmo Base (stand & reflector), game playing pieces (including upper and lower case Word’s tiles) and stackable storage containers. iPad, USB Cable/Adapter included.

Osmo is a magical award-winning game system, it fosters creativity and problem solving skills through hands-on play. The Genius Kit includes 6 award-winning games.
Discover how machines make work easier by exploring effort, force, load, motion, and distance with simple machines. Students use fine motor skills to construct and examine simple machines and develop a deeper understanding of how they work. Build 5 models at once while using student-friendly directions for assembling and using a lever, wedge, pulley, and wheel and axle. Includes 8 rubber bands and 4 weights. Warning: Choking Hazard for children under 3 years old.
ZANIMATION STUDIO

WITH (3) Stikbots: (1) Stikpet, (1) Stikbot, (1) Stikbot Jr.
(1) Tripod, Z-Screen, Z-Screen Backer and (2) prop boxes and Instruction Sheet

Blu-Bot is the new Bee-Bot robot set with a Bluetooth connection. Use the buttons on the back to program Blu-Bot just like Bee-Bot. Connect Bu-Bot to your tablet or PC via Bluetooth, using free apps, and program Blu-Bot remotely. Students learn counting, sequencing, directionality, problem-solving, and estimation. Blu-Bot is compatible with any Android or iOS or Android tablet with version 3.0/4.0+ EDR Bluetooth. (e.g. iPad and later). Comes with (6) Blu-Bots, (6) USB cables, Docking Station, (2) sets of TacTile Readers with tiles. The Blue-Bot TacTile Reader is a unique, hands-on programming device to control Blue-Bot with tiles representing each Blue-Bot command.
Makedo Group ToolKit is a simple-to-use, open-ended system of tools for creative cardboard construction. Build imaginative and useful creations from upcycled (repurposed) everyday cardboard. To be used in collaborative creative environments such as classrooms, maker spaces, and libraries. 360 reusable parts, 12-24 makers, and a tool bag. Warning: Choking Hazard-Small parts. Not for children under 3 years old.

A group kit of cardboard construction tools for many hands to make light work.

For libraries, workshops, birthday parties, maker spaces, design studios and delightfully ambitious home projects.

- share the world of playful cardboard construction
- 360 reusable parts
- 12 to 24 makers
- run small group projects
Squishy Circuits and Dough Kit

ST 47

Contains: Quick Start Guide

(10) Battery Holders
(10) Piezoelectric Buzzers
(10) Motors with Fan Blades
(10) Switches
(10) Small Screws with (10 ) Colored Fans

Two Sets of (8) packages of LED Lights with (5) lights in a package
(40) AA Batteries

*We suggest up to 3 students per battery holder*

Squishy Circuits Group and Dough Kit is fun way to explore the basics of electricity. By using conductive and insulating dough, you can create sculptures with embedded lights, motors and buzzers. Students learn that a closed circuit is need in order for electricity to flow from the battery pack to light the bulb. Power comes from a (4) AA battery pack and travels through the conductive dough to provide power to LEDs (Light Emitting Diodes), buzzers, or motors. Includes (10) Battery holders, LED Lights, White insulating Dough, Color Conductive Dough, Piezoelectric Buzzers, Fans, Motors and On/Off Switches and (2) boxes of Squishy Dough.
Perfect for classrooms, schools, districts, workshop teachers, and anyone else that wants all their Makey Makeys in a really nicely organized briefcase. The Makey Makey STEM Kit is a distillation of 12 Makey Makeys, 12 booster packs and some extra parts for when you want to invent something even bigger.

Contains:

(12) Makey Makey Boards
(144) Alligator Clips
(145) Connector Wires
(12) Red USB Cables
(13) Pencils
(14) Extra Long Green Alligator Clips
(15) Illustrated Guides
(16) Extra Long White Connector Wires
Teacher Guide
Sample Lessons
Designed with teachers for your classroom an all-in-one tool designed to easily integrate 3D creation into your classroom, for less than the cost of a 3D printer. Our latest edu product, Redesigned with teachers, for fun & inclusive learning.

- Adapt to any curriculum or lesson Plan: students learn by doing, and explore the principles of art and design, STEM, spatial awareness, tactile skills and more, in a fun and engaging way. A versatile addition to any classroom.

- Completely kid-safe: perfect for ages 6+, the award-winning 3Doodler start extrudes plastic that hardens instantly. The pen has no hot parts, and uses non-toxic, BPA-free 3Doodler start plastic.

- Award-winning and educationally recognized: kokoa standard Certificate of high education quality, rnib approved, National Parenting product award, scholastic parent & child gold Star toy award, and toy Insider STEM 10, and more.

- Each pack contains: 12 3Doodler start pens, 1, 200 strands of plastic, a host of other Tech accessories, lesson plans, and classroom materials. See product description for full contents.
FOR INSTRUCTIONAL USE ONLY WITH TEACHER SUPERVISION

COLOSSAL FORT INVENTORY

(1) OVERSIZED NYLON STORAGE BAG

(30) WOOD BLOCKS W BAG

(52) PVC STICKS

(8) ANGLED ROOF TUBES
FOLK TALES PROBLEM SOLVING STEM KIT-JOHNNY APPLESEED  ST 38

Recommended Age  2nd-3rd Grade

Description
Students explore the legend of Johnny Appleseed-then design a fence shaped to hold the most apple trees. The kit helps students discover the STEM in a classic folk tale-inspiring them to use hands-on materials to design, build and test a sturdy log fence...then improve their design like real engineers. This kit comes with a STEM-focused story card, student challenge cards, a detailed lesson plan and a reproducible design sheet-plus 30 apple trees, 10 logs, two 16” double-sided landscape mats and a ruler.

Develops skills in perimeter and area, the design process and problem solving.

FOLK TALES PROBLEM SOLVING STEM KIT-PAUL BUNYAN ST 37

Recommended Age  2nd—3rd Grade

Description
Students explore the legend of Paul Bunyan-the design a wagon to carry his heavy knapsack. The kit helps students discover the STEM in a classic folk tale-inspiring them to use hands-on materials to design, build and test a working wagon...then improve their design like real engineers. The kit comes with a STEM-focused story card, student challenge cards, a detailed lesson plan and a reproducible design sheet-plus 52 pieces to build a wagon, a 2 pound, 4 1/2” weighted knapsack, rubber bands and a tape measure.

Develops skills in force and motion, structure and stability, the design process and problem-solving.

FOLK TALES PROBLEM SOLVING STEM KIT-JOHN HENRY ST 36

Recommended Age  2nd-3rd Grade

Description
Students explore the legend of John Henry-then build a working conveyor belt to help him race a steam-powered drill. The kit helps kids discover the STEM in a classic folk tale-inspiring them to use hands-on materials to design, build and test a conveyor belt that really hauls rocks...then improve their design like real engineers. This kit comes with a STEM-focused story card, student challenge cards, a detailed lesson plan and a reproducible design sheet-plus 102 pieces to build a conveyor belt.

Develops skills in structure and stability, the design process, understanding gears and problem-solving.
Recommended Age Preschool-1st Grade

Description

Students engineer a happy fairy tale ending as they design a house that can’t be blown down. The kit helps students discover the STEM in one of their favorite fairy tales—the kit inspires them to explore a challenging situation until they find a solution. The kit includes a STEM-focused story card, (18) foam blocks, 36 panels in 2 sizes, 3 pigs, a wolf, plus student and teacher cards with lesson plans and full support.

Develops skills in using the design process, exploring cause and effect, and experimenting with gravity and force.

Recommended Age Preschool-1st Grade

Description

Students construct a bridge that keeps 3 goats safe from the troll. The kit inspires students to explore a challenging situation until they find a solution. The kit includes a STEM-focused story card, 35 wooden blocks with hook and loop fastener, 3 goats, a troll, a guide, plus student and teacher cards with lesson plans and full support.

Develops skills in using the design process, exploring cause and effect, and experimenting with size, weight and balance.

Recommended Age Preschool-1st Grade

Description

Students build a chair even Goldilocks can’t break. The kit includes a STEM-focused story card, 40 pegs, 36 platforms, 4 figures, a guide, plus student and teacher cards with lesson plans and full support.

Develops skills in using the design process, exploring cause and effect, and experimenting with size, weight, and balance.
FAMOUS INVENTORS PROBLEM SOLVING KITS—SAMUEL MORSE ST 44

The hands-on problem-solving kit helps you integrate STEM with history! After reading about Samuel Morse, students use he included pieces and step-by-step design cards to plan, build and test a working telegraph. Includes story card about the inventor, (3) Design cards, a reproducible design sheet, a teacher’s card with a detailed lesson plan, plus 50 building pieces.

*Develops skills in energy, sound and the design process.*

FAMOUS INVENTORS PROBLEM SOLVING KITS—ALEXANDER GRAHAM BELL ST 42

Our hands-on problem-solving kit helps you integrate STEM with history. After reading about Alexander Graham Bell, students use the included pieces and step-by-step design cards to plan, build and test a working telephone system. As students test and streamline their design, they sharpen their problem-solving skills and discover the thrill of invention. Included are a Story Card about the inventor, (3) Design cards, a reproducible design sheet, a teacher’s card with detailed lesson plan, plus 12 building pieces, 10 wires, speaker and more.

*Develops skills in electricity, engineering and the design process.*

FAMOUS INVENTORS PROBLEM SOLVING KITS—THOMAS EDISON ST 43

Description

Read about Thomas Edison and then use the included pieces and step-by-step design cards to plan, build and test a working motion-picture viewer that brings the included filmstrips to life. As students test and streamline their design, they sharpen their problem-solving skills. Included are Story Card about the inventor, (3) Design Cards, a reproducible design sheet and a teacher’s card, 7 building pieces, and 3 double-sided filmstrips.

*Develops skills in friction, force and motion, engineering and the design process.*