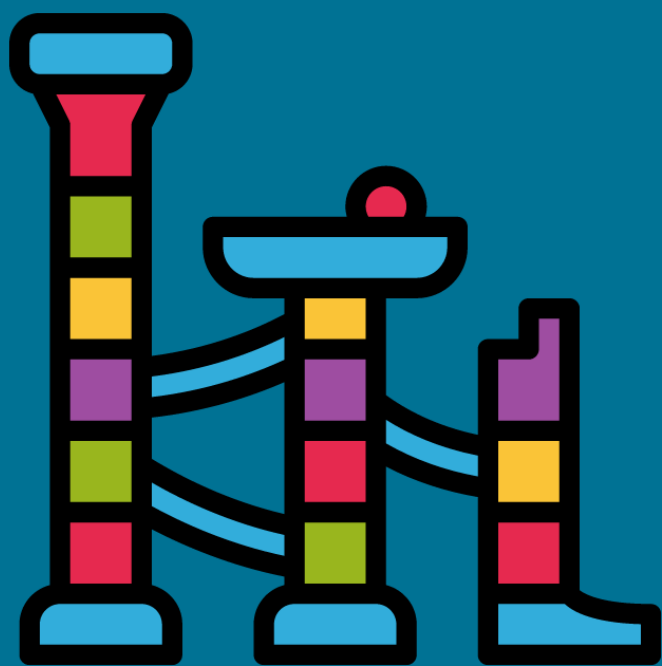


Novi Public Library

STEAM Kits



STEAM Kits and Age Ranges

Age ranges are those suggested by the kit components' manufacturers.

Kit #1 SMATH	6 years and up
Kit #2 DRAWING	7 years and up
Kit #3 SPIROGRAPH	8 years and up
Kit #4 PAPER FOLDING	8 years and up
Kit #5 FOSSILS	8 years and up
Kit #6 BIRDING	3 years and up
Kit #7 INSECTS	6 years and up
Kit #8 GRAVITY SPACE LANDER	9 years and up
Kit #9 MAGNETIC TILES	3 years and up
Kit #10 ARCHITECTURE	4 years and up
Kit #11 CONSTRUCTION PLANKS	3 years and up
Kit #12 SPACE- PLANETARIUM	7 years and up
Kit #13 OSMO LITTLE GENIUS- iPad	3-5 years
Kit #14 MICROSCOPE	8 years and up
Kit #15 NUTS ABOUT COUNTING	3 years and up
Kit #16 SNAP CIRCUITS	8 years and up
Kit #17 OSMO-iPad	6 years and up
Kit #18 OSMO-Amazon Fire	6 years and up
Kit #19 SIMPLE MACHINES	8 years and up
Kit #20 POWER TILES CIRCUITS	6 years and up
Kit #21 MAKEY	8 years and up
Kit# 22 BY THE BOOK	8 years and up
Kit #23 SPHERO MINI	8 years and up
Kit #24 KANOODLE GRAVITY	7 years and up
Kit #25 CODING	8 years and up
Kit #26 STEEL TONGUE DRUM	5 years and up
Kit #27 BOTLEY CODING ROBOT	5 years and up
Kit #28 KANOODLE	7 years and up
Kit #29 CHAIN REACTION	4 years and up
Kit #30 OSMO LITTLE GENIUS AMAZON	3-5 years
Kit #31 CODING: SCRATCH JR	5 years and up
Kit #32 GRAVITY MAZE	8 years and up
Kit #33 MARBLE RUN	8 years and up
Kit #34: CHESS TEACHER	6 years and up

STEAM Kits: Frequently Asked Questions

Q: What's a STEAM Kit?

A: It's a take-home set of something to play with that fits in one of five categories: science, technology, engineering, arts, or math.

Q: What's in the box?

A: Check the tag! There are all kinds of different things—activity sets, books, or both.

Q: How do I check it out?

A: Find the kit you are interested in and take it to the Circulation Desk by the front door.

Q: How long can I keep it for?

A: STEAM Kits can be checked out for one week (7 days).

Q: Where do I return it?

A: Please return kits to the Novi Public Library Circulation Desk ONLY—DO NOT put them into a drop box or the automatic return slot.

Kit #1: SMATH

With every equation kids create in this fun-to-play math game, they reinforce math facts and score points! To play the crossword-style game, kids arrange number tiles to form tons of equations. Players rack up points for each correct equation, and the player with the most points wins the game!

Replacement Cost: \$20



Kit #2: DRAWING

Sharpen your drawing skills with this set. Included are two learn to draw books- *Art for Kids: Drawing* by Kathryn Temple and Ed Emberley's *Drawing Book of Animals* by Ed Emberley. There is also an art history book, *The School of Art* by Teal Riggs. A pencil set, paper, and colored pencils are also included to get you started.

Replacement cost: \$75.00



Kit #3: SPIROGRAPH

Explore the classic Spirograph with this set. Use the interlocking gears and wheels to make intricate, spiraling, and elegant designs.

Replacement Cost: \$25.00



Kit # 4: PAPER FOLDING

Learn the art of paper folding with this kit. Two books are included- *Easy Origami* and *Cool Flexagon Art*. A container with origami paper is provided to get you started.

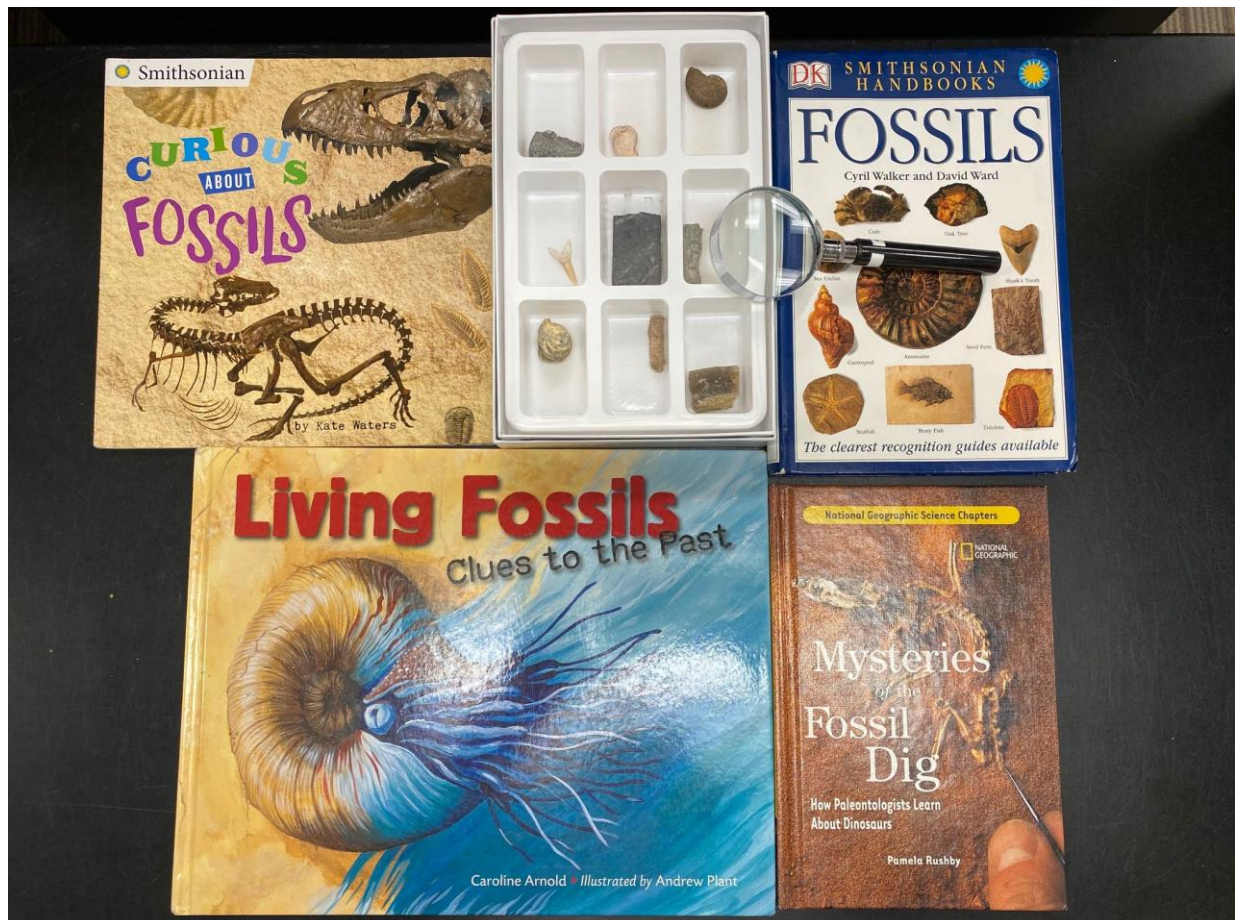
Replacement Cost: \$50.00



Kit #5: FOSSILS

This kit will let you explore fossils. There are nine fossils to examine with a magnifying glass. Also included are four books to help you learn about fossil identification, dig sites, and living fossils.

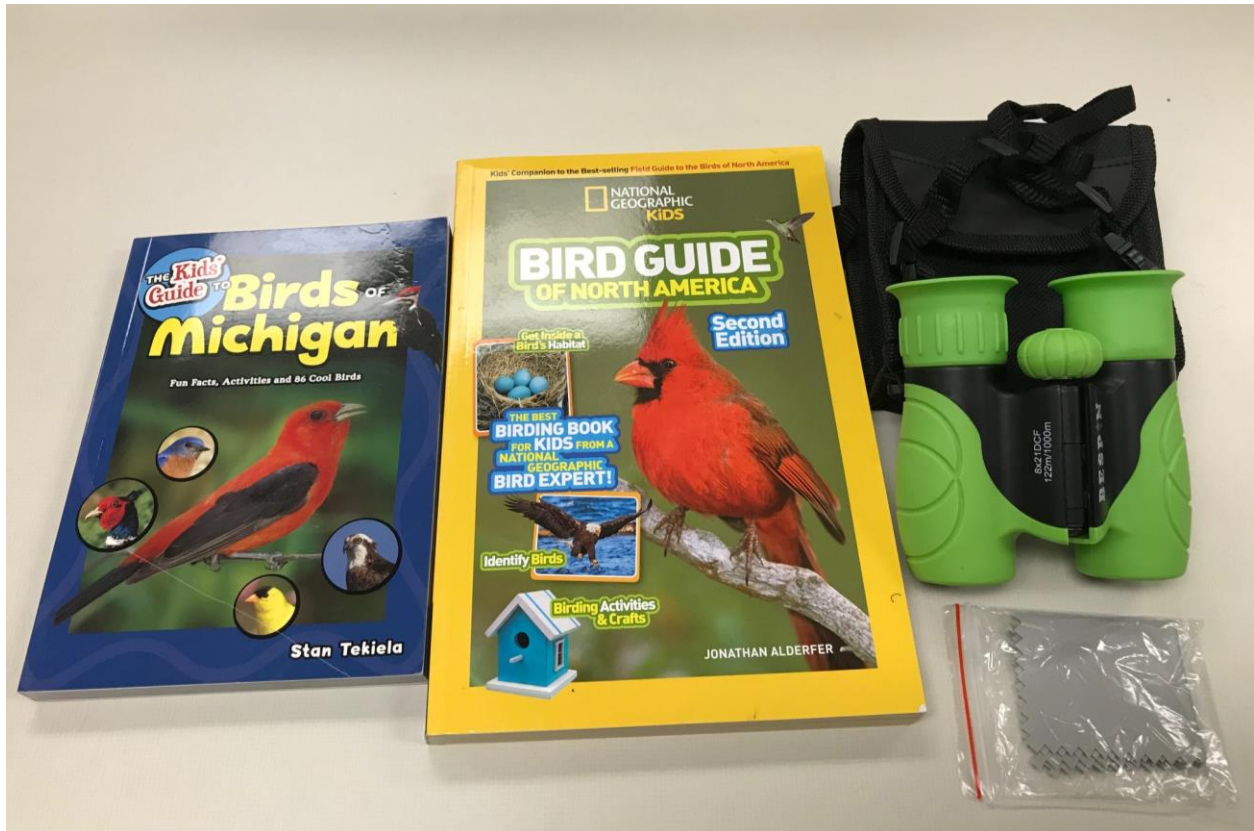
Replacement Cost: \$100.00



Kit #6: BIRDING

Learn all about the birds of Michigan and North America with this kit. Use the binoculars to help you find birds right in your backyard. How many can you find?

Replacement Cost: \$50.00



Kit #7: INSECTS

With this kit you will be able to inspect 10 creepy crawlly insects up close! This kit contains 10 encased specimens and magnifying glass. It also includes 3 books: *DK Insect* (no clip-art CD), National Geographic's *Ultimate Bugopedia*, and *Cicada Symphony* by Sue Fliess.

Replacement Cost: \$120



Kit #8: GRAVITY: SPACE LANDER

Learn all about Newton's laws of motion and explore how parachutes work...then create a space lander! This Lakeshore Learning kit comes with all the materials needed to complete 4 activities—from researching parachutes to testing gravity's effects on different objects!

Replacement Cost: \$70



Kit #9: MAGNETIC TILES

Get creative with magnetic tiles. Use your imagination to build cool 3D structures with this 100 piece set. Learn about color, geometric shapes, magnetic polarity, and architecture.

Replacement Cost: \$55

Picasso **TILES**
PT100



Kit #10: ARCHITECTURE

Learn about spatial reasoning and building in three dimensions as you construct one realistic house after another! Follow the prompts on the activity cards—slotting together plastic walls, floors and roofs to create 10 different houses even professionals would be proud of.

Replacement Cost: \$40



Kit #11: CONSTRUCTION PLANKS

Children get a hands-on introduction to STEM as they replicate real-world designs—from simple train tracks to a towering skyscraper! Kids just look at the photo on an inspiration card and balance wooden planks on top of each other to build a mini airplane, bed, bridge and more—no glue, screws or snaps needed.

Replacement Cost: \$40



Kit #12: SPACE-PLANETARIUM

See the universe from the comfort of your own home with a Planetarium projector with multiple viewing slides of planets, nebulae, moons, asteroids, and other celestial bodies. This kit contains a Smithsonian Optics Room Planetarium and Dual Projector and the book *A Child's Introduction to the Night Sky*.

Replacement Cost: \$75



Kit #13: OSMO LITTLE GENIUS KIT for iPad

Award-winning learning games let your child interact with tangible educational toys and an iPad, bringing their actions to life. A hands-on learning adventure awaits your little genius.

NOTE: iPad is not provided. For information on compatible devices, please go to www.playosmo.com. An internet connection is needed for setup, but no WiFi is necessary for game play.

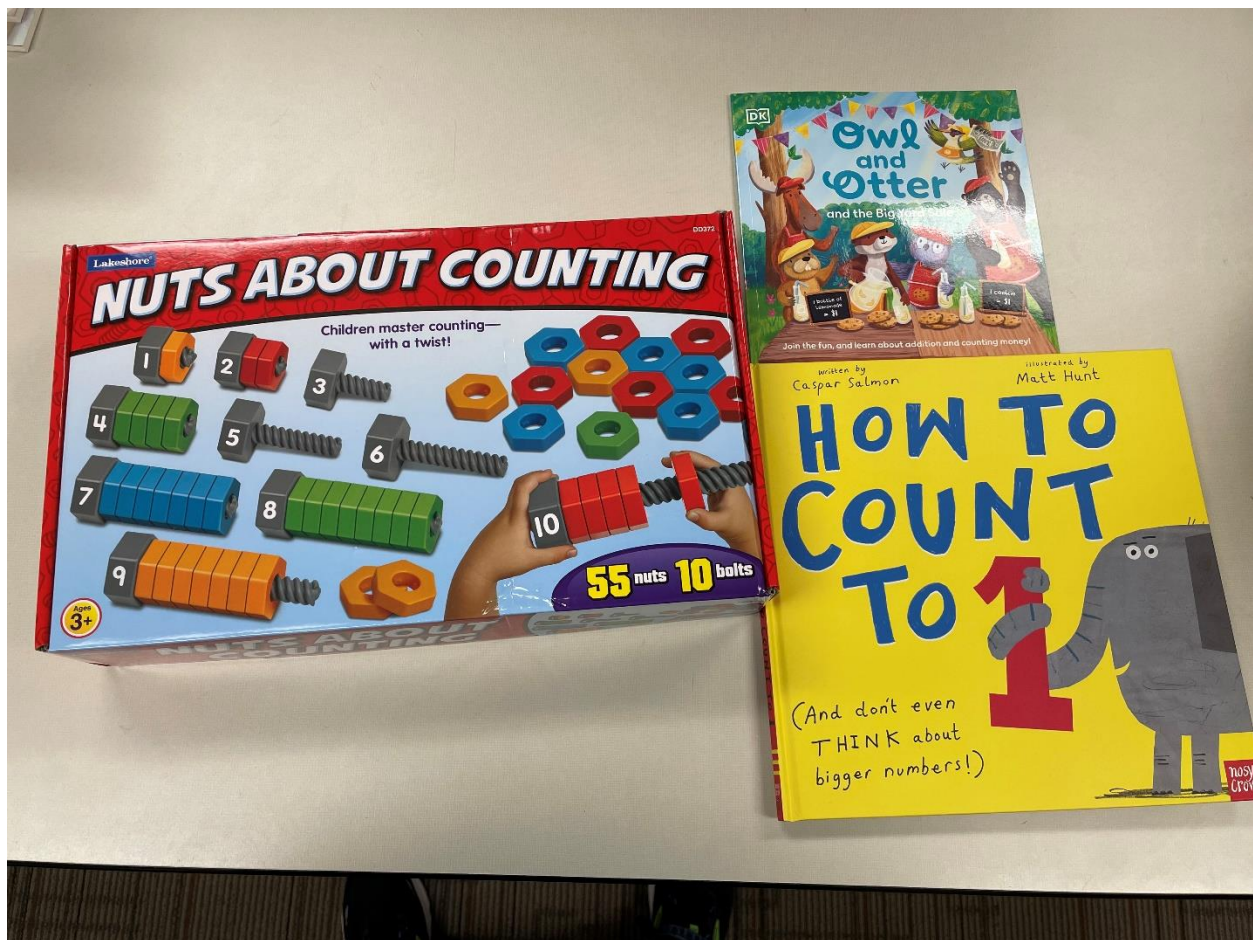
Replacement cost: \$85.00



Kit #15 NUTS ABOUT COUNTING

Boost early counting skills—with nuts and bolts kids can't wait to get their hands on! They just choose a bolt featuring a numeral from 1 to 10 and twist on the matching number of nuts...building fine motor skills as they learn! Each bolt is designed to hold the exact quantity of nuts—so kids get no-fail counting practice every time. Plus, the molded plastic nuts and bolts feature a quick-release design that makes it a cinch to remove the nuts and start again. Set includes 10 bolts and 55 nuts.

Replacement Cost: \$75



Kit #16: SNAP CIRCUITS

Make dozens of cool electronic gadgets - all from one box! A safe and fun way to introduce children ages 8+ to the basics of electrical engineering! Build exciting projects and toys using the included colorful instruction book!

Replacement Cost: \$45



Kit #17: OSMO GENIUS KIT for iPad

Use the Osmo Genius Kit with your own iPad to play games that enhance reading & vocabulary, number sense & math confidence, problem solving, as well as creativity & imagination. Use the included tangram pieces, letter tiles, and number tiles to add to the fun!

NOTE: iPad is not provided. For information on compatible devices, please go to www.playosmo.com. An internet connection is needed to use Osmo.

Replacement cost: \$100



Kit #18: OSMO GENIUS KIT for AMAZON FIRE TABLET

Use the Osmo Genius Kit with your own Amazon Fire Tablet to play games that enhance reading & vocabulary, number sense & math confidence, problem solving, as well as creativity & imagination. Use the included tangram pieces, letter tiles, and number tiles to add to the fun!

NOTE: Amazon Fire Tablet is not provided. For information on compatible devices, please go to www.playosmo.com. An internet connection is needed to use Osmo.

Replacement cost: \$100



Kit #20: POWER TILES CIRCUITS

Introduce 21st-century skills like electronics and robotics with action-filled circuits! Interchangeable circuit tiles snap together in every direction for endless exploration, and a variety of tiles let children experiment with light, sound, motion and more. Follow our guide to build 2-D and 3-D circuits—from a night-light to a beeping alarm—or let kids design their own creations!

Replacement Cost: \$130



Kit #21: MAKEY

With this kit, you can replace your mouse and keyboard with a Makey Makey! Hook up this circuit board to your computer and visit their site, draw with paint, or use with Scratch to create any program you can think up. This kit contains a Makey Makey with alligator clips and computer cord as well as Playdoh for connecting circuits.

Replacement Cost: \$75



Kit #22 BY THE BOOK

Put together a perfectly balanced bookshelf for our furry cat friend using a good dose of reasoning and sharp visual perception. 40 gradually progressing challenges using up to 12 different books will keep you on your toes.

Replacement Cost: \$50.00



Kit #23: SPHERO MINI

Equipped with a gyroscope, accelerometer, and colorful LED lights, this educational robot is more than a mini robot toy. Sphero Mini is the perfect entry into robotics for beginners!

Replacement Cost: \$65.00



Kit #24: KANOODLE GRAVITY

Perfect for solo play or a two-player challenge, players put their puzzle skills to the test to complete 40 gravity-defying puzzles or alternate placing pieces with a friend. Simply select a challenge from the guide, place the pieces as shown, then use the remaining pieces to complete the puzzle—or take turns placing the pieces. If a player's piece doesn't fit—they lose the round! Set includes Kanoodle Gravity puzzle board, 10 colorful puzzle pieces, guide with 40 puzzle challenges, and carrying case.

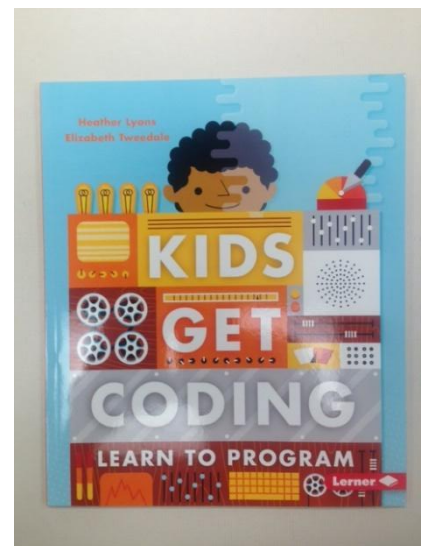
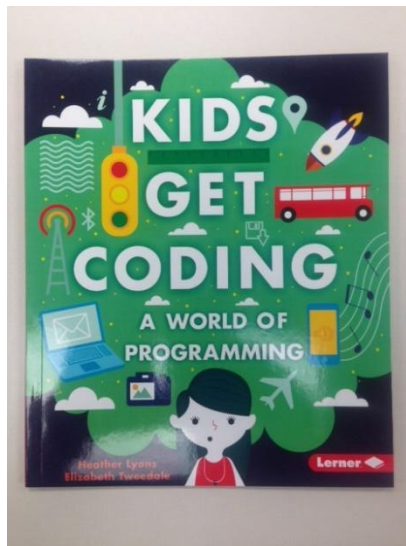
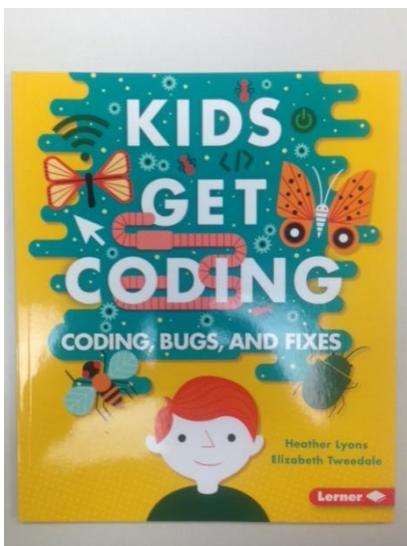
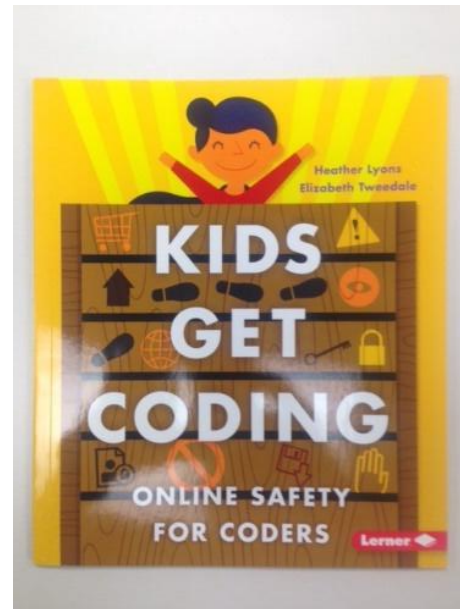
Replacement Cost: \$35



Kit #25: CODING

Learn all about Scratch coding with this kit! It includes information about bugs, fixes and online safety. This kit contains four different books and a set of Scratch Coding Flashcards.

Replacement Cost: \$75



Kit #26: STEEL TONGUE DRUM

Learn how to play the Steel Tongue Drum with this set. Use the included books to make beautiful music. Steel Tongue Drums have a peaceful, soothing sound that can help calm and relax.

Replacement Cost: \$75



Kit #27: BOTLEY CODING ROBOT

Botley helps your child learn early STEM skills while playing and having fun. He teaches kids to code with active, screen-free play that's perfect for promoting critical thinking and problem solving skills

Replacement cost: \$100.00



Kit #28: KANOODLE

Using combinations of colored connected beads, players complete colorful puzzles in two unique formats: tricky 2D puzzles and twisted 3D pyramids. To start, pick a design from the puzzle book, place some of the puzzle pieces into position as shown...then fill the empty spaces with the remaining pieces. Sounds simple? It can be...or it can be deviously difficult, depending on the level of game play. Hundreds of possible combinations, but only one completes the puzzle. Puzzle pieces fit inside the handy pocket-sized case with built-in game boards, so you can Kanoodle anywhere. Includes 12 puzzle pieces, 48-page illustrated puzzle book, and carrying case.

Replacement Cost: \$20



Kit #29: CHAIN REACTION

Set off a chain reaction of fun! Set up a course of ramps, pendulums, hammers, switches and more...then drop a ball onto the tracks and go for the goal box! Packed with super-durable plastic pieces, the set is perfect for open-ended building—or kids can use the leveled challenge cards to create a variety of different courses from scratch! Set comes with 37 pieces, plus 4 balls, 6 challenge cards and a guide. The tracks measure 12" in length.

Replacement Cost: \$50



Kit #30: OSMO LITTLE GENIUS-AMAZON FIRE

Award-winning learning games let your child interact with tangible educational toys and an Amazon Fire tablet, bringing their actions to life. A hands-on learning adventure awaits your little genius.

NOTE: Amazon Fire tablet is not provided. For information on compatible devices, please go to www.playosmo.com. An internet connection is needed for setup, but no WiFi is necessary for game play.

Replacement cost: \$85.00



Kit #31: CODING: SCRATCH JR

ScratchJr is a free, introductory computer programming language that runs on iPads, Android tablets, Amazon tablets, and Chromebooks. Derived from Scratch, the wildly popular programming language used by millions of kids worldwide, ScratchJr helps even younger children (5 to 7 years old) create their own playful animations, interactive stories, and dynamic games.

Replacement cost: \$50.00



Kit #32: GRAVITY MAZE

Gravity Maze is a combination logic game, marble run, and STEM toy. Playing your way through the challenges builds spatial reasoning and planning skills, and is partly an engineering and building toy that provides a great stealth learning experience for young players. For ages 8 and up. It contains 60 challenges from beginner to expert, a game grid, 9 towers, 1 target piece, and 3 marbles

Replacement cost: \$30.00



Kit #33: MARBLE RUN

The National Geographic Glow-in-the-Dark Marble Run Set is a super-fun way to explore construction, engineering, and physics! It has everything kids need to create incredible marble runs that will have their glowing marbles racing toward the finish line!

Configure the pieces in any design you'd like - the possibilities are endless! The detailed learning guide has lots of information about the physics of motion and gravity, so kids can learn while they play!

Replacement cost: \$35.00



Kit #34: CHESS TEACHER

Now anyone can learn to play chess—quickly and easily! This specially designed chess set has easy-to-follow diagrams printed right on the base of each piece, so you can learn the names of the pieces and how they move—at a glance! Set includes a chessboard, 32 plastic pieces, a guide, and the books *How to Play Chess for Kids* and *Kid's Guide to Chess*.

Replacement cost: \$60.00

