

# Make & Learn Kits

## AT CARROLL COUNTY PUBLIC LIBRARY

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### FOR AGES 3 MONTHS+

#### Owl Babies Storytelling Puppet

Category: **Dramatic Play**

Read the board book *Owl Babies* and then use the puppets to retell the story and bring the characters to life.



### FOR AGES 3 - 6

#### Code-a-Pillar

Category: **Technology**

Encourage experimentation while developing important skills like problem solving, planning, sequencing, and critical thinking.



### FOR AGES 18 MONTHS+

#### Better Builders Grippies™

Categories: **Engineering, Math, Science**

Combine tactile exploration and magnetic play as well as introduce the basic principles of engineering and geometry.



#### Start-Up Circuits

Categories: **Science, Technology**

A fun way to teach children the abstract concept of circuitry. Through a light that glows, a fan that spins, and a siren that whistles, children will delight in learning how a circuit is a circle that can make exciting things happen.



### FOR AGES 3+

#### Agate Table Slices

Category: **Science**

Transparent quality of each slice allows children to see the layers caused by formations. Color and texture variations can open discussions about likes and differences. Funded by the Striving Readers Grant.



#### All About Me Activity Cards & Counters

Category: **Math**

With these write & wipe cards and over 40 activities, children will discover how to sort, make patterns, work on early addition and subtraction, and more!

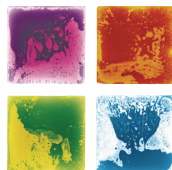


### FOR AGES 2+

#### Liquid Tiles

Categories: **Art, Physical Activity, Science**

Easy to incorporate into music and movement activity games, these tiles are perfect for encouraging active play to develop gross motor skills. Liquid tiles feature an anti-slip backing. Funded by the Striving Readers Grant.



#### Road Stampers Activity Set

Categories: **Art, Engineering**

Art meets civil engineering with these unique stampers! Choose a card or invite the child to design a card, then recreate the pattern shown with the stampers. Funded by the Striving Readers Grant.



#### Boomwhackers®

Category: **Music**

These instruments give kids the ability to express themselves while simultaneously identifying unique sounds and learning rhythm basics.



#### Code Hopper

Categories: **Physical Activity, Technology**

This active game keeps bodies busy while young brains gain valuable practice in sequencing, decision making, and following commands just like a computer.



#### Cooperative Stretchy Band & Bean Bag Set

Categories: **Physical Activity, Science**

Build confidence and group cooperation while developing body movement and balance. Ideal for movement tasks that include elements of space, locomotion, shape, and manipulation.



## FOR AGES 3+

### Crystal Connectors

Categories: **Engineering, Math, Science**

A rainbow of translucent discs, each with 8 slots, for constructing 3-dimensional structures that capture the light. Funded by the Striving Readers Grant.



### Loose Parts Lab

Categories: **Art, Engineering, Math, Science**

Explore a variety of materials during play to aid in problem solving, engineering, hand-eye coordination, language and vocabulary building, and more. Funded by the Striving Readers Grant.



### Magformers Sky Track

Categories: **Engineering, Math, Science**

Equipped with a sky shuttle and multiple track accessories, you can create loops, ups and downs, twists and turns for endless flight fun. Funded by the Striving Readers Grant.



### Mag-Men Flexible Magnets

Category: **Science**

Mag-Men are the coolest, cutest, and most fun little magnetic men. Bend and twist them in numerous funny shapes and positions. Funded by the Striving Readers Grant.



### Magnet Attraction

Category: **Science**

Learn how magnets attract or repel using these magnet wands, cars, characters, and "floating" ring magnets.



### Nature Observation Set

Category: **Science**

Take a closer look at nature with this set that includes magnifiers, nets, bug bubbles, and observation boxes.



### Playground Engineering & Design Building Set

Categories: **Engineering, Science**

Use your own designs or follow the Challenge Cards to build a playground (a twisty slide, a swing set, a seesaw, and more). Reproducible engineering design worksheets are included in the Guide.



### Preschool Microscope

Category: **Science**

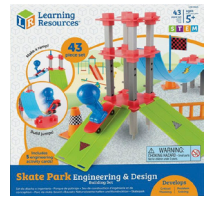
Preschoolers can see hidden worlds with ease thanks to two extra-large eyepieces. The wide fixed tray holds both flat and 3D items allowing for up-close examination of rocks, leaves, and more!



### Skate Park Engineering & Design Building Set

Categories: **Engineering, Science**

Build ramps, jumps, and send your skater flying with the Skate Park Building Set. This unique engineering and design challenge helps sharpen critical thinking, problem solving, and STEM skills as little ones create the skate park of their dreams. Includes activity cards that help guide the process.



### Spatial Relations Playset

Category: **Math**

Learning and understanding spatial relationships paves the way to important concepts such as top and bottom, right and left, between, behind, under, and more.



### Translucent Pattern Blocks

Category: **Math**

Shapes are the most fundamental basics for mathematics. Give your child a jump-start in mathematics by building and creating designs with shapes and blocks. Teach them geometric names and how shapes fit together. There are no building guides or pattern pictures; children are free to explore their creative mind and use critical thinking to build their own masterpieces. Funded by the Striving Readers Grant.



### Transparent Building Bricks

Categories: **Engineering, Math, Science**

128 colorful, translucent plastic bricks, made of safe and non-toxic material, for building towers, flowers, and more! Use with a light table to allow light to shine through. Enhances fine motor skills, hand-eye coordination, spatial reasoning, problem solving, cognitive ability, pretend play, counting and early math, creativity and imagination. Funded by the Striving Readers Grant.



### Tree House Engineering & Design Building Set

Categories: **Engineering, Science**

Design and engineer the tree house of your dreams. Build railings, platforms, trees, then use your problem solving skills to re-engineer your design. Includes engineering challenge activity cards.



## FOR AGES 4+

### Human and Animal X-rays

Category: **Science**

Use the animal x-rays to study the similarities and differences between mammals, reptiles, fish, birds, and amphibians. Use the human x-rays to identify the bones in the body. Funded by the Striving Readers Grant.



### Scents Sort Match-Up

Category: **Science**

Match up the 30 scent filled cups with the picture cards to help children develop their sense of smell. Funded by the Striving Readers Grant.



## FOR AGES 5+

### Botley® the Coding Robot

Category: **Technology**

Botley® pairs hands-on, 100% screen-free coding with advanced features including object detection and black line following. It's easy to get started but challenging enough to grow with children's coding skills. Funded by the Striving Readers Grant.



### Code & Go™ Robot Mouse

Category: **Technology**

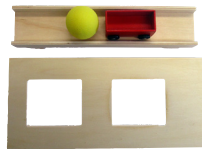
Build your maze, and then use the coding cards to create a step-by-step path for Colby, the Programmable Robot Mouse.



### Engineering with Ramps

Category: **Engineering**

Place supports in the bases, add ramps and complete challenges to discover force and motion, cause and effect, and more.



### Gears! Gears! Gears! Motorized Wacky Wigglers Building Set

Categories: **Engineering, Math, Science**

Kids develop creativity, imagination, and fine motor skills by building glowing creatures. Supports STEM by introducing children to sorting, grouping, counting, designing, constructing, and putting physics into play with spinning gear movement. Funded by the Striving Readers Grant.



### Magnetic Marble Run

Categories: **Engineering, Math, Science**

Drop the marble down the zigging, zagging path. Can you make it to the goal? Use your engineering skills to build the track and guide the marble home. Create your own tricky tracks for even more challenges! Funded by the Striving Readers Grant.



### Marble Run

Categories: **Engineering, Math, Science**

Use the colorful tubes and shapes to build your own marble run. This kit helps kids learn color recognition as well as the basics of gravity and physics. The marble run kit encourages STEM learning while helping children to practice their logical thinking, hand-eye coordination, and problem solving skills.



### Perplexus Rookie

Categories: **Engineering, Science**

Perplexus Rookie offers newcomers a three-dimensional puzzle challenge like no other. Over 70 barriers to your success draw you into the action as Perplexus twists and turns. Guide the metal ball toward the maze finish. Maneuver surprising routes of challenge that test your hand-eye coordination, focus, and perseverance.



### Simple Machines Activity Set

Categories: **Engineering, Science**

Introduce and explore six simple machines as you make amazing discoveries, design solutions for real-world problems, and conduct investigations.



### Snap Circuits Jr.

Categories: **Science, Technology**

Snap Circuits teach basic engineering, electronics, and circuitry concepts by using building components with snaps to assemble electronic circuits on a simple "rows-and-columns" base grid. The resulting projects function like the printed circuit board found in most electronic products.



## FOR AGES 6+

### Dash & Dot the Robots

Category: **Technology**

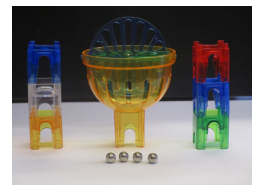
Dash and Dot are real robots that make learning to code fun and help kids establish strong problem solving skills!



### Q-BA-MAZE 2.0

Categories: **Engineering, Math, Science**

The ultimate marble-run adventure! Set the cubes up any way you like or follow the instructions to build two wild stunt contraptions.



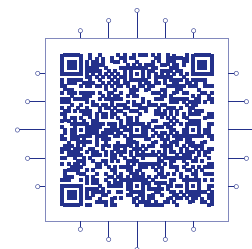
### Planetarium Projector

Category: **Science**

The pivoting projector shines stars and planets onto ceilings and walls. The motorized projector rotates the stars automatically when in use. Includes four interchangeable discs featuring 32 stunning images of planets, constellations, galaxies, and more. A built-in focal ring allows for improved clarity in any size room. Uses three AA batteries for cord-free operation.



## HOW TO RESERVE A KIT



Scan the QR code  
or go to [bit.ly/make-and-learn](https://bit.ly/make-and-learn)

## FOR AGES 8+

### 3Doodlers

Categories: **Art, Engineering, Math, Science, Technology**

3Doodlers are pens that extrude heated plastic which quickly cools and solidifies into a strong stable structure. This allows for the building of an infinite variety of shapes and items with ease. Most can instantly trace objects on paper, and after just a few hours of practice are able to make much more intricate objects.



### Air & Water Power

Categories: **Engineering, Science, Technology**

Build your own models powered by air and water pressure to learn about the laws of physics. This unique kit allows you to build two different air-and-water-powered systems.



### Circuit Maze Logic Game

Categories: **Science, Technology**

Create an electrical circuit that lights up designated beacons. Learn how real circuits work through 60 tricky challenges that provide hours of electrifying fun.



### Darkside Ollie

Category: **Technology**

Darkside rolls at speeds of up to 14 mph and connects instantly to your device via Bluetooth with a range of up to 100 feet.



### Gravity Maze Marble Run Logic Game

Categories: **Engineering, Math, Science**

This gravity powered logic maze is sure to put your visual perception and reasoning skills to the test. The towers can be arranged in a wide variety of structures; think carefully to build a path that will carry your marble to the Target Tower.



### Ivan's Hinge

Categories: **Math, Science**

A baffling brainteaser to wrap your mind around and put your fingers to the test. Fold, loop, turn, open, close, and bend. You'll soon discover the challenge behind Ivan's Hinge.



### Laser Maze Logic Game

Categories: **Math, Science**

Arrange the tokens to reflect and split the laser beam to hit the targets. Completing challenges builds reasoning and planning skills for young players.



### littleBits

Categories: **Science, Technology**

littleBits consists of small circuit boards with specific functions built to snap together with magnets without soldering, wiring, or programming. Each bit has its own specific function, such as light, sound, sensors, or buttons.



### Makey Makey

Categories: **Science, Technology**

Makey Makey is an invention kit designed to connect everyday objects to computer keys. Using a circuit board, alligator clips, and a USB cable, the toy uses closed loop electrical signals to send the computer either a keyboard stroke or mouse click signal thus turning just about anything into a controller. It will require one or more of the mobile computer labs. You can use things like fruit, spoons, coins, and more.



### Ozobots

Categories: **Engineering, Math, Science, Technology**

Ozobots are powerful tiny robots that expand STEM and computer science learning through a collection of game based activities and digital apps. They can be coded using markers and paper or digitally coded using the app Ozoblockly.



### Perplexus Epic

Categories: **Engineering, Science**

Perplexus Epic has gnarly new obstacles that require a whole new level of concentration and finesse. It has an impressive 125 barriers that are certain to entertain, challenge, and thrill you to EPIC proportions! How can something so easy to pick up, be so hard to put down?



### Safety Goggles

Category: **Science**

Protective eyewear designed to shade the eye area and provide some protection from flying debris.



### Safety Glasses

Category: **Science**

Protective eyewear designed to shade the eye area and provide some protection from flying debris.



### Snap Circuits® Light

Categories: **Science, Technology**

Create over 175 projects with over 55 color-coded circuit components.



### Snap Circuits M.E.G.

Categories: **Science, Technology**

Learn the basics of electricity, engineering, and circuitry with Snap Circuits 3D M.E.G. Build over 160 projects with 60+ parts including multiple sized gears and unique stabilizers for building 3D structures.



## Snap Circuits® Motion

Categories: **Science**, **Technology**

Complete over 165 motion and physics-focused projects.



## FOR AGES 14+

### Aquapod

Category: **Science**

Launch ordinary plastic soda bottles up to 100 feet in the air using just a basic bicycle pump, water, and a plastic bottle.



## FOR AGES 12+

### Chaos Machine

Category: **Science**

Learn how pendulums work as you build the single, double, and triple pendulums.



### Cryptocube

Category: **Math**

Start by building a cube with the black struts and nodes. Use the colorful struts and nodes to build structures inside and around the cube. Countless solutions are possible.



### Hanayama Metal Puzzles

Categories: **Math**, **Science**

Are you a puzzle master? Can you take it apart? Now try and put it back together. Start at level 1 (easy) and work your way up to level 6 (very difficult)!



## ADULT SUPERVISION RECOMMENDED

### Green Screen

Category: **Technology**

Stand in front of the green screen to use your own device and apps to create incredible green screen videos and photos. Easy to use but still enables fantastic results! You can express yourself in truly creative and unique ways – tell a story, land on an alien planet, stand in front of a weather map, and more! Funded by the Striving Readers Grant.



### LED Tracing Light Pad

Category: **Technology**

Thin and portable light box with 3-level adjustable brightness. Perfect for building with transparent blocks, exploring and examining x-rays, and taking a closer look at rock and mineral slices. Funded by the Striving Readers Grant.



### Ukulele

Category: **Music**

Learn to play the ukulele – it's easy & fun!



CARROLL COUNTY  
PUBLIC LIBRARY

*Infinite Possibilities*

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to see what's happening near you!



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# CARROLL COUNTY PUBLIC LIBRARY

*Infinite Possibilities*

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### EXPLORATION COMMONS AT 50 EAST

50 East Main St. • Westminster • 443.293.3000

### FINKSBURG BRANCH

2265 Old Westminster Pike • Finksburg • 410.386.4505

### MOUNT AIRY BRANCH

705 Ridge Ave. • Mount Airy • 410.386.4470 • 301.829.5290

### NORTH CARROLL BRANCH

2255 Hanover Pike • Hampstead • 410.386.4480

### TANEYTOWN BRANCH

10 Grand Dr. • Taneytown • 410.386.4510

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