Youth Outreach
STEAM Program Materials
Pre-K to 2nd Grade

Rigamajig

**Basic Builder Set:** A large-scale building kit used for hands-on free play and learning. This collection of wooden planks, wheels, pulleys, nuts, and bolts, and rope allows children to follow their curiosity through play. (260 Parts)

**Simple Machines Add On Kit:** A new set of components to expand the Rigamajig Basic Builder, includes gears, a new wheel-pulley, levers, belts, cranks, and axles! (57 Parts)

**Inventory:**
1 Basic Rigamajig Builder Set
1 Simple Machine Add on Kit:

**Audience:**
Pre-K – Adult
Up to 5 teams of 5 or less per 45-60 minute sessions

**In Action:**
Experience the Rigamajig virtually!
https://youtu.be/zzS9gZF99ya

Kid K’nex Budding Builders Set

Kid K’nex contains 100 large parts with vibrant colors and aids the growth of key developmental abilities like fine motor skills, hand-eye coordination and dexterity.

**Inventory:**
100 large parts with vibrant colors. Choose from 50 building ideas or create originals designs.

**Audience:**
Pre-K – 2nd Grade
Groups of 2-3 students per 15 minute sessions

**In Action:**
Experience the Kid K’nex virtually!
https://youtu.be/GWgXtR3B6r0
Dash and Dot Wonder Workshop Sets

Virtual coding turns into tangible learning experiences in real time as Dash, with its performance and multiple sensors, interacts with and responds to its surroundings.

Each pack includes:

- 1 Dash Robot, 1 Dot Robot, 1 launcher for Dash, 1 xylophone for Dash, 1 accessories pack for Dash and Dot, 1 Building Brick Extenders, and 1 set of rabbit ears and tail

**Inventory:**
5 Packs, each includes the contents listed above.

**Audience:**
Grades 2—6
Teams of 2-3 students per 30 - 60 minute session

**In Action:**
Experience the Dash and Dot virtually!
Make Wonder: Dash and Dot

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Cubelets Mini Makers Pack

Use the Mini Makers Pack to help students practice basic computational thinking skills, engineering processes, and design thinking.

- 52 Cubelets: 6 Battery, 6 Passive, 6 Inverse, 6 Distance, 6 Brightness, 4 Knob, 6 Drive, 6 Flashlight, and 6 Rotate. Plus, 2 Bluetooth Hats, 24 Brick Adapters (6 sets of 4), 1 5-Port Charger, 5 Charging Cables, and 2 Storage Tubs.

**Inventory:**
1 Pack of 52 cubelets, which includes the contents listed above.

**Audience:**
2nd Grade—Adult
6 Groups of 2—3 students per 30-60 minute sessions

**In Action:**
Experience Cubelets virtually!
https://youtu.be/Nj-zCvPY_Wo
Ozobots Bits

An Ozobot is a small and smart line following robot. Program Ozobot Bit by drawing lines and color segments on paper with markers, then advance to the visual block-based app. Kids use their creativity and artistic expression, while developing logical reasoning and in turn, actually learning high level coding concepts.

Inventory:
19 Ozobot Bits. Host location must provide tablets.

Audience:
Grades 3—6
1 to 2 people per Ozobot per 30-45 minute session

In Action:
Experience Ozobots virtually!
https://youtu.be/zm_H8HXWFZ4

K’NEX Education—Intro to Simple Machines: Levers and Pulleys Set

Create interactive models that move! Set comes with instructions and a comprehensive teacher’s guide. K’NEX Education teacher’s guides and experiment guides are written by expert educators and are aligned to national educational standards like ITEEA, NSES, NCTM, NGSS, and Common Core.

Inventory:
1 Kit, includes 178 pieces to build 8 replicas of real-world machines.

Audience:
3rd Grade—5th Grade
One team of 2—3 students per 20 minute session

In Action:
Experience K’NEX Simple Machines virtually!
https://youtu.be/t0ilaMvRbyc
K’NEX Education—Intro to Structures: Bridges Set

Structure Bridges allows you to create a variety of shapes and models of bridges. Build 13 fully functioning replicas of real-world bridges, one at a time. These models demonstrate key bridge types, such as truss, arch, cantilever, beam, suspension, moveable/bascule, and cable-stayed.

Building instructions and guides are included. K’NEX Education teacher’s guides and experiment guides are aligned to national educational standards, including ITEEA, NSES, NCTM, NGSS, and Common Core.

Inventory:
1 Kit, includes 178 pieces to build 13 bridge replicas

Audience:
3rd Grade—5th Grade
One team of 2—3 students per 20 minute session

In Action:
Experience K’NEX Simple Machines virtually!
https://youtu.be/2qtp2Hd5l8s
Makey Makeys

Start out with an easy piano, and then make game controllers and countless inventions. Just plug, clip, and play! No programming knowledge needed. No software to install. Works with Mac and Windows. Host location must provide laptops or desktop computers.

Each Kit contains:

- Makey Makey Board, USB Cable, 7 Alligator Clips, 6 Connector Wipes, Instructions with Visual Project Start Guide

**Inventory:**
7 kits, each contains above listed items

**Audience:**
Grades 4—Adult 1 to 2 people per 20—30 minute session

**In Action:**
Experience Makeys virtually! [https://youtu.be/rfQqh7iCcOU](https://youtu.be/rfQqh7iCcOU)

Sphero SPRK+

Powdered by the Sphero Edu app, Sphero SPRK is a robotic ball which can be programmed to roll, spin, and babble its way through any maze or game students can build.

**Inventory:**
One kit with 12 Spheros and charging pack

**Audience:**
4th Grade—12th Grade 1—2 students per Sphero per 45—60 session.

**In Action:**
Experience Spheros virtually! [https://youtu.be/0yQYr7CIxBc](https://youtu.be/0yQYr7CIxBc)
Snap Circuits

Snap Circuits makes learning electronics easy and fun! Just follow the colorful pictures in the manual and build exciting projects such as AM radios, burglar alarms, doorbells, and much more! All parts are mounted on plastic modules and snap together with ease.

Inventory:
4 kits, each contains over 50 snap circuits.

Audience:
Grades 5th—Adult
2-3 students per kit per 20-30 minutes sessions

In Action:
Experience Snap Circuits virtually!
https://youtu.be/xDpLvUghfBg

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Youth Outreach in Action

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