

STEM KIT Descriptions

1. Power Protectors STEM Challenge Kit (Ages 8-14)

Power Protectors consists of three activities where kids will learn Kids will learn about renewable energy and apply this knowledge to analyze and assess their own energy use sing the Engineering Design Process, kids will design and build a model of a sustainable energy source to help Energy Island survive and thrive. They will use their Super Skills of creativity, problem solving, and innovative thinking to save the day! Playing this collaborative board game, kids work as a SUPER team to achieve a common goal.

2. Ocean Expedition Board Game (Ages 5 and up)

Youth navigate their ocean robot around the world while learning key ocean concepts such as aquaculture, climate change, technological innovation, human impact, and the ocean ecosystem.

3. Water Analysis Kit (Ages 8 and up)

This complete kit is a great way to learn about water safety and rainwater management. Includes two tests each for lead, pesticides, total coliform bacteria, total chlorine, total hardness, iron, pH, total alkalinity, copper, iron bacteria, nitrates, nitrites, and hydrogen sulfate

4. Soda Bottle Rocket Launcher Kit (Ages 8 – 18)

Simple and easy to construct, the Soda Bottle Launcher will be used to launch a rocket and aim to hit the target. Like a balloon, air pressurizes the bottle rocket. When stomped or jumped on, air escapes the bottle, providing the energy needed to propel the rocket.

5. Discover 4-H Box - Outdoor Exploration (Ages 5 and up)

The Discover 4-H Box - Outdoor Exploration is all about exploring the outdoors while learning more about wildlife, birds, and the insects and creatures that keep our environment thriving. This kit includes tools to learn as well as introduce several 4-H curricula available on Shop 4-H. This kit provides four activities to give youth a glimpse into entomology and bird projects and may even spark a new hobby!

6. STEM MECHANICS: Wheels, Axles & Inclined Planes Activity Kit (Ages 8-16+)

Youth learn how Wheels and Axles use friction to move objects easily and how big tires compare to small tires. Find out how an Inclined Plane can be used for lifting heavy objects and how another form of an inclined plane, the wedge, is used in everyday applications.

7. Eco-Bot Challenge Kit (Ages 8-18)

In the Eco-Bot Challenge, youth build and test an autonomous robot, called an Eco-Bot, to clean up a simulated environmental spill.

8. Marshmallow Catapult Materials Kit (Ages 8 and up)

This hands-on challenge guides youth through engineering a catapult to launch a marshmallow 6+ feet.

9. Mini Herb Garden (Ages 8-12)

Grow herbs right inside your kitchen with this easy “do it yourself” mini herb garden! Perfect for any windowsill, this kit comes with everything you need to grow your own parsley, basil, or chives. Simply add water and enjoy.

10. SNAP Circuits Junior (Ages 8 and up)

Electrical components provide hands-on experience designing and building models of working electrical circuits. Snap Circuits allows for hours of educational fun while learning about electronics. All parts are mounted on plastic modules and snap together with ease.

11. Build-A-Boat Activity Kit (Ages 8 and up)

Use common materials to explore buoyancy and power! Design a working electric motorboat with this activity. Evolve your boat through the engineering design process. This activity features Mini Hub Assemblies that allow you to create unique propellers by changing blade shape, angle, and number.