

STEM Materials & Kits Inventory

Our knowledge of how people learn has grown substantially over the years. Children need to be presented opportunities to learn the same material with different methods. STEM gives children chances to investigate an idea in a variety of settings, prepares them for technological advances, teaches problem-solving skills and encourages creativity. Below you will find a list of various equipment you can use to make learning fun and exciting!

You are liable for taking the necessary precautions to protect the equipment and to store it in a manner that provides adequate protection when it is not in use. Also, equipment is to be returned in the same condition as it was received, should never be loaned out to a third party, and needs to be returned by the due date. If it is determined that loss or damage is a result of negligence, **the adult may lose check-out privileges and will lose their deposit.**

For more information about equipment, activities, and anything involving STEM, contact Nicole Cange at (210) 319-5775 ext. 405 or ncange@girlscouts-swtx.org.

Materials:

Safety Goggles

- Protect your eyes during certain experimentations

Telescopes \$50 (refundable) deposit

- Use for sky gazing and looking at stars/planets

The Missing Money Mystery (4 courses)

- Use reasoning skills and science to solve a mystery

Lost Skull Case

- Use reasoning skills and science to solve a mystery

Kidnapped Cookies

- Use reasoning skills and science to solve a mystery

Space Theater Planetarium

- Light-up planetarium that displays stars on your ceiling

Space Exploration Mobile

- Rotating mobile that depicts space exploration

Clever Catch Inflatable Astronomy Ball

- Learn about the universe while playing a fun game

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Rocks and Minerals Chart

- Pictorial guide to mineralogy

Crystal Growing set (assorted)

- Grow your own crystals

Mineral Formations and ID Lab (middle school/HS)

- Identify minerals based on physical properties/structure; calculate specific gravity and reactions

Rock Tumbler

- Polish rocks/minerals and make crafts

Fossil Works Mold set

- Create fossil molds (makes 12)

Fossils set

- View 12 different fossils

Fossil Collection

- View 24 fossils and learn about them using identification cards

Solar Balloon

- Demonstrates buoyancy, convection, thermodynamics, and solar power

Power House

- Learn about alternative energy and sustainable living, while building energy related models

Renewable Energy Science Education set

- Discover the science of renewable energy and clean energy technologies

Power Wheel

- Micro hydro generator that hooks up to a hose, teaching about water energy converting into mechanical energy then into electricity

Fuel Cell Car

- Build a car that runs on water and sunlight

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Windmill Generator

- Build a wind generator and learn about renewable energy

Physics Workshop set

- Intro. to physics and the fundamental law of mechanical physics

Electronic Playground

- Easy-to-build circuits teaching you the operations of various electronic circuits

Can Do! Science Game: Matter

- Test your knowledge of physical matter by identifying states of matter, describing properties of gases, solids, and liquids, and understanding how matter changes

Can Do! Science Game: Magnets

- Engage in hand-on materials used to help students explore magnetism

Master Mind

- Set of activities that focus on creative, out-of-the box thinking

Planet Quest

- Board game that teaches about the solar system

Geo Puzzle Jigsaw

- Intro to Geography: puzzle pieces shaped like individual countries

Geo Dice Board Game

- Intro. To Geography: naming countries and capitals that begin with the letter that appears on the dice

STEM Kits:

Math Kit #1 (D, B, J, C, S): \$20 deposit

Math Kit #2 (D, B, C, J, S): \$20 deposit

Math Kit #3 (J, C, S): \$20 deposit

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- Engage in a variety of activities that will help children learn and apply mathematical concepts

“Science Wiz” (D, B, J, C, S): \$10 deposit

“Science Wiz” #2 (D, B, J, C, S): \$10 deposit

- Perform an assortment of experiments in different subjects

Opposites Attract: Magnetism (D, B, J, C, S): \$15 deposit

- Learn about magnets, the different types of magnet, and the various uses of magnets.

Light Properties (B, J, C, S): \$15 deposit

- Learn about the basic properties of light

Out of This World: Astronomy (D, B, J, C, S): \$20 deposit

- Learn about the universe and space

Circuits and Electricity (D, B, J, C, S): \$20 deposit

- Learn about electricity and how it works

Sun Power! Solar Energy (D, B, J, C, S): \$15 deposit

- Learn all about the energy from the sun, how we use it, and what this may mean for our future

Solar Mechanics (J, C, S): \$15 deposit

- Build various models to learn about solar energy converting to mechanical energy

Rocks and Minerals (D, B, J, C, S): \$20 deposit

- Enjoy fun activities and gain information about different types of rocks and minerals

“Green Science” (D, B, J, C, S): \$10 deposit

- Use every day recyclable materials to build creations

“Green Science”: Weather (D, B, J, C): \$10 deposit

- Track the weather by measuring temperature, wind direction, wind speed, cloud type, and precipitation

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“Green Science”: Mechanics (J, C, S): \$10 deposit

“Green Science”: Mechanics #2 (J, C, S): \$10 deposit

- Use every day recyclable materials to build mini robots

Be aware there are certain materials that are not included. When you receive a kit, read over activities so that you are aware of what additional "household" items will be needed.

Book Titles:

- Applying the Standards: STEM Grade K
- Applying the Standards: STEM Grade 1
- Applying the Standards: STEM Grade 2
- Applying the Standards: STEM Grade 3
- Applying the Standards: STEM Grade 4
- Applying the Standards: STEM Grade 5
- Skill Builders: Math Grade 4
- 50 STEM Labs: Science Experiments
- 50 New STEM Labs: Science Experiments
- Using STEM to Investigate Issues in Managing Waste
- Using STEM to Investigate Issues in Alternative Energy
- Using STEM to Investigate Issues in Food Production
- Earth Science for Every Kid
- The 101 Coolest Simple Science Experiments
- The Kid's Invention Book
- Outdoor Science Lab for Kids
- A Guide to Freshwater Ecology
- Kitchen Science Lab for Kids
- The Curious Kid's Science Book
- The Unofficial Guide to Learning with Lego
- Kids Inventing: A Handbook for Young Inventors

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- So, You Want to Be a Coder?
- STEM Jobs with Animals
- STEM Jobs in Music

- STEM Jobs in Food and Nutrition
- STEM Jobs in Sports
- STEM Jobs in Fashion and Beauty
- Headstrong: 52 Women Who Changed Science and the World
- Girls Think of Everything: Stories of Ingenious Inventions by Women
- Robots
- DK Eyewitness Books: Robot
- DK Eyewitness Books: Chemistry
- Elements: A Visual Exploration of Every Known Atom in the Universe
- Geography: A Visual Encyclopedia
- Human Body: A Visual Encyclopedia
- Space: A Visual Encyclopedia
- How Things Work Encyclopedia
- How to Be a Math Genius
- Knowledge Encyclopedia
- The Technology Book for Girls and Other Advanced Beings
- Peterson First Guides: Rocks and Minerals
- Rocks and Minerals
- Gemstones
- Science Fact Finder
- Geography of the World
- Atlas of Exploration
- Nuclear Power
- Noa, The Little Scientist
- Top STEM Careers in Science
- Exemplary Science for Building Interest in STEM Careers
- Be That Engineer: Inspiration and Insight from Accomplished Women Engineers
- Girls and Women in STEM: A Never Ending Story
- Astrobiology: The Story of our Search for Life in the Universe- Issues 1-3