

The graphic features a central white area with a blue border, surrounded by a pattern of small blue icons including gears, tools, and scientific symbols. The main text 'SUMMER FROM YOUR LIBRARY' is rendered in a bold, blue, sans-serif font. The word 'SUMMER' is at the top, 'FROM YOUR' is in a smaller font within a blue banner, and 'LIBRARY' is at the bottom. The letters are stylized with various STEM-related icons: a lightbulb, gears, a microscope, a test tube, and a circuit board.

SUMMER FROM YOUR LIBRARY

2019 Library Activities

In 2019, sixty-five public and school libraries in Idaho received grants to provide STEM learning opportunities during the summer months. At the end of the summer, they each reported on what they had done with the funds. The following is a collection of activities and experiments that Idaho libraries used to engage young learners.

Please Note:

- These may not be the exact activities performed in each library.
- Some very popular activities can be found in more than one category of this list.
- Every effort was made to find an online source that would provide a good representation for each activity.
- Some activities were so broad or widely-known that they did not require a link to an online source
- Don't forget to check out the [Summer STEM Toolkit](#) from ICFL for more great ideas

Summer STEM

Experiments from Idaho Libraries

Aerodynamics (Things that Fly & Spin)

[Air Compression Rockets](#)

[Alka Seltzer Rockets](#)

[Balloon Rockets](#)

[Bottle Rockets with Vinegar & Baking Soda](#)

[Design a Wind Turbines & Pinwheels](#)

[Estes Model Rocket Launch](#)

[Film Cannister Rockets](#)

[Hoop Gliders](#)

[Jumping Frogs with Straws](#)

[Marshmallow Launcher](#)

[Paper Airplanes](#)

[Paper Kites](#)

[Paper Rockets](#)

[PVC Rocket Launcher](#)

[Rubber Band Helicopters](#)

[Stomp Rockets](#)

[Straw Rockets](#)

[Straw Spinners](#)

[Suspension Bridges](#)

Art

[Beautiful Bubbles](#)

[Book Making Crafts](#)

[Bubble Painting](#)

[Button Making](#)

[Color Wheel](#)

[Crayons in a Glue Gun](#)

[DIY Watercolor with Sharpies & Rubbing](#)

[Alcohol](#)

[Drawing with scale and proportion](#)

[Face Painting](#)

[God's Eye Weaving Craft](#)

[Kaleidoscope](#)

[Mobiles](#)

[Moon Rock Painting](#)

[Origami](#)

[Painted Pinecones](#)

[Painted Rocks](#)

[Painting with Magnets](#)

[Sculpture](#)

[Sharpie Tie Die](#)

[Shaving Cream Art](#)

[Sketching](#)

[Spin Art](#)

[Spray Chalk](#)

[Stamps](#)

[Sun Paper](#)

[Suncatchers](#)

[Tar Paper Art](#)

[Thaumatrope](#) or [Spinning Discs](#)

[Tie Dye T-Shirts](#)

[Wool Craft](#)

Board Games

[ColorKu](#)

[Mastermind](#)

[Qwirkle Board Game](#)

[Sequence](#)

[Sumoku](#)

Color Science

[Peppermint Fireworks](#)

[UV Beads](#)

[UV Beads and Sunscreen](#)

[Walking Water](#)

[Rainbow Paper](#)

[Rainbow Baking Soda & Vinegar](#)

Engineering & Building

[3-D Structures with Straws](#)

[Balloon Cars](#)

[Brain Flakes](#)

[Bridges](#)

[Building with Magnets/Magnatiles](#)

[Building with Playing Cards](#)

[Building with Rainbow Toy Frog Blocks](#)

[Cardboard and String Robot Hand](#)

[Cardboard Hydraulic Arm](#)

[Catapults](#)

[Cup Building Challenge](#)

[Dam Design](#)

[Duplos®](#)

[Egg Drop Challenge](#)

[Film Cannister Rockets](#)

[Floating Boat Experiment](#)

[Fort Building](#)

[Gears](#)

[Geodesic Newspaper Dome](#)

[Geometric Shapes Building Set](#)

[Gone Fishin'](#)

[Keva Planks](#)

[LEGO® boats](#)

[LEGO® Simple Machines](#)

[Makedo Cardboard Construction](#)

[Marble Run](#)

[Marshmallow Toothpick Structures *](#)

[Pendulums](#)

[Pom Pom Catapults](#)

[Puzzling Packets](#)

[Rainbow Stack Ball Track](#)

[Rubber Band Helicopters](#)

[Rube Goldberg Machine](#)

[Squigz](#)

[Straw and Cup Tower Challenge](#)

[Straws and Connectors](#)

[Tangrams](#)

[Tegu Magnetic Blocks](#)

[Tegu Wooden Blocks](#)

[Whirligigs](#)

[Wooden Simple machines](#)

[Zoob Builders](#)

*Variations on this activity use pretzels or uncooked spaghetti in place of toothpicks

Electricity

[Circuit Design](#)

[Design thinking/Inventor's Club](#)

[Electron \(Vacuum\) Tubes \(](#)

[Energy Sticks](#)

[Fruit and Vegetable Electricity](#)

[Paper Circuit Light Cards](#)

Harry Potter

[Bertie Bot's Every Flavor Bean Coding Challenge](#)

[Lumos! Magic Circuit Wands](#)

[Magnetic Troll Bogeys](#)

[More Potions](#)

[Potions](#)

[Wingardium Leviosa Magnetic Wands](#)

Great Outdoors

[Animal Adaptations](#)

[Biomimicry](#)

[Build a Water Filter](#)

[Cheerio Bird Feeders](#)

[Compost Critters](#)

[DIY Windsocks](#)

[Fishing Pole Magnets](#)

[Fossil Identification](#)

[Frozen Animal Rescue](#)

[Identify Cloud Types](#)

[Insect Identification](#)

[Jump Rope](#)

[Light and Sound Activities](#)

[Make a Duck Call](#)

[Nature Clay Prints](#)

[Nature Scavenger Hunt](#)

[Newspaper Hats](#)

[Owl Pellets](#)

[Photosynthesis](#)

[Plant Pounding](#)

[Plant Printing](#)

[Playdough Rock Core Samples](#)

[Precipitation Activities](#)

[Rain sticks](#)

[Seed Bombs](#)

[Seed Planting](#)

[Seed Tape](#)

[Solar Oven](#)

[Sundials](#)

[Thunder Tube](#)

[UV Beads and Sunscreen](#)

[Water Cycle in a Bag](#)

Guest Speakers

[501st Rebel Legion](#)

[Anthony Haskett](#) – MOSAICS Public School, Caldwell

[Discovery Center of Idaho](#)

[John Herrington](#), Astronaut

[Mobius Science Center](#) – Spokane Area

[Radical Rick](#) – North Idaho

Messy Science

[Amazing Mentos](#) and [this variation with lifesavers](#)

[Baking Soda & Vinegar](#)

[Chemical Reactions](#)

[Density of Liquids](#)

[DIY Lava Lamp](#)

[Elephant Toothpaste](#)

[Extracting DNA from Banana](#)

[Galaxy Slime](#)

[Giant Bubbles](#)

[Glitter Germs](#)

[I Spy Sensory Bags](#)

[Large Bubble Wands](#)

[Mad Matter Sensory Dough](#)

[Magic Balloons](#)

[Magnetic Slime](#)

[Make Your Own Ice Cream](#)

[Make Your Own Slime](#)

[Mentos Rocket](#)

[Ocean in a Bottle Sensory Tube](#)

[Oobleck](#)

[Orbeez Stress Balls](#)

[Physical Reactions](#)

[Playdough](#)

[Silly Putty](#)

[Soda Geyser Car](#)

[Vanishing Styrofoam](#)

[Water Balloon Pinata](#)

[Water Beads](#)

[Water Wall](#)

[What Sugar Does to Your Teeth](#)

[Windbags](#)

Math

[Sidewalk Chalk Math](#)
[Pattern Blocks](#)

[Snap Cubes](#)
[Mini muffin matchup counting](#)

Robots & Tech

[3D Pens](#)
[3D Printing](#)
[Augmented Reality Coloring Sheets](#)
[Bee-Bots](#)
[Binary Bracelets](#)
[Binary Bracelets](#)
[Bristlebots](#)
[Circuit Boards](#)
[Circuit Critters](#)
[Code-a-pillar](#)
[Crack the Code](#)
Deconstruction of old appliances and computers
[Drones](#)
[Edison Blocks](#)

[Edison Robots](#)
[HEXBUG Cuddlebots](#)
[Kibo Robots](#)
[LEGO® Coding](#)
[Little Bits](#)
[Makey Makey](#)
[Micro:bits](#)
[Ozobots](#)
Robotic Tinkering
[Scribblebots](#)
[Snap Circuits](#)
[Squishy Circuits](#)
[Stop Motion Movie Making](#)
VR

Space

[Alien Slime](#)
[Asteroid and Comet Toss](#)
[Astronaut Costume](#)
[Build a Mars Rover Kit](#)
[Coffee Filter Planets](#)
[Constellation Building](#)
[Constellation Keychains](#)
[Constellation Viewer](#)
[Create and Dissolve Moon Rocks](#)
Design & craft the International Space Station from cardboard
[Flashlight Constellation](#)
[Galaxy Jars](#)
[Galaxy Slime](#)
[Loony Lunar Phases](#)
[Mars Rover Rubber Band Cars](#)
[Marshmallow Constellations](#)
[Model Solar System](#)
[Moon and Sand Sensory Bin](#)
[Moon Buggy](#)

[Moon Craters](#)
[Moon Rocks](#)
[Pocket Solar System](#)
[Recipe for a planet](#)
[Rocketship Tent](#)
[Saturn CD](#)
[Solar System Hats](#)
[Solar System Scale Bead Activity](#)
[Solar System Walk](#)
Solar Telescope
[Space Lander Challenge](#)
[Space Wreaths](#)
[Space-themed Suncatchers](#)
[Star Charts](#)
[Star Finder](#)
[Star Lab](#)
[Straw Rockets](#)
[Textured Moon Painting](#)
[VR Space Walk](#)