

K-8th Grade STEM Continuum of Learning

GRADE: K-8	Content Area: STEM - Science, Technology, Engineering, and Math
Standard: Science	
Key Idea: Physics	
Activities:	
a.) Egg Drop (Middle School)	
b.) Marble Roller Coasters	
c.) Tin Foil Boats	
d.) Balloon Powered Cars	
e.) Rubber Band Racers	
f.) Paper Airplanes	
g.) Straw Rockets	
h.) Water Bottle Rockets (Middle School)	
i.) Pasta Cars	
Key Idea: Life Science	
Activities:	
a.) Photosynthesis Experiment (Starting 25/26)	
b.) Horticulture (Greenhouse)	
c.) Flower Dissection (4 th – 8 th)	
d.) Microscopes – Viewing Animal and	Plant Cells
Key Idea: Chemical Reactions	
Activities:	
a.) Lab Safety	
b.) Physical Reaction – Soda Bottles/Balloons/Hot Water/Cold Water	
c.) Design your own experiment (Chemical Reaction) – Baking Soda, Iodine, Baking Powder, Sugar, Start, Water, Vinegar	
d.) Elephant Toothpaste	
Key Idea: Earth and Space Science	
Activities:	
a.) Solar/lunar Eclipse (years that have Solar/Lunar Eclipses)	

b.) Earth Day Celebration

c.) Rock Identification

d.) Oil Spill Clean-up (Starting 25/26)

Standard: Technology

Key Idea: Coding

Activities:

a.) Scratch

b.) Python (starting 25/26 - 5th through 8th Grade)

c.) Screen-Free Coding

Key Idea: Robotics (starting 25/26)

Activities:

a.) Constructing robots

b.) Coding robots

c.) Obstacle Course Challenge

Standard: Engineering

Key Idea: Bridges

Activities:

a.) Index Card Bridge (Penny Challenge)

b.) Small Popsicle Stick Bridge (50 craft sticks)

c.) Large Popsicle Stick Bridge (100 craft sticks)

d.) Lego Bridges (Kinder)

Key Idea: Towers

Activities:

a.) Marshmallow Challenge

b.) Craft Stick/Clothespin Challenge

c.) Index Card Challenge

d.) Lego Towers (Kinder)

Key Idea: Engineering Design Process

Activities:

a.) Design and Build an Invention in Order to Solve a Problem Utilizing the Engineering Design Process (State the Problem, Research Solutions, Brainstorm, Choose Solution, Build Prototype, Test and Redesign)

Key Idea: Simple Machines

Activities:

a.) Design and Build a Rube Goldberg Machine (6th through 8th Grade)

Key Idea: Design a Solution to a Complex Real-World Problem	
Activities:	
a.) Design and Create a Prosthetic Hand	
b.) Prosthetic Hand Challenge	
Standard: Math	
Key Idea: Statistics (starting 25/26)	
Activities:	
a.) What are the Chances (Dice, Coins)	
b.) M&M Math	
c.) Pick a Card, Any Card	
Key Idea: Geometry	
Activities:	
a.) M&M Geometry (starting 25/26)	

b.) Gumdrop Geometry