

Third Grade STEM Unit

STEM Area	Name of Lesson:	Iowa/Common Core Concept or Skill	Where to Find It @TeachersGoingGreen.com
Science	To Wiggle or Not to Wiggle	<ul style="list-style-type: none"> • 3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. 	Third Grade Science
	Guilds & Plants, People & Communities	<ul style="list-style-type: none"> • 3-LS2-1 Construct an argument with evidence, data, and/or a model. 	Third Grade Social Studies
	Mapping for Ecology	<ul style="list-style-type: none"> • SS.3-5.PSCI.1 Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action. <ul style="list-style-type: none"> ○ Understand opportunities for leadership and public service in the student’s own classroom, school, community, state, and the nation. 	Third Grade 21st Century Skills
	Student Solutions for Endangered Species	<ul style="list-style-type: none"> • 3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. 	Third Grade Science

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Technology	Creative Climates	<ul style="list-style-type: none"> • 3-ESS2-2 Obtain and combine information to describe climates in different regions of the world. 	Third Grade Science
	Graphing with Rain Gauges	<ul style="list-style-type: none"> • 3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets. 	Third Grade Mathematics
	The Giving Trees	<ul style="list-style-type: none"> • SS.3-5.PSCI.1 Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action. <ul style="list-style-type: none"> ○ Understand opportunities for leadership and public service in the student’s own classroom, school, community, state, and the nation. 	Third Grade 21st Century Skills
	Photo Reflections	<ul style="list-style-type: none"> • W.3.1 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. 	Third Grade English Language Arts
Engineering	Power of the Wind	<ul style="list-style-type: none"> • 3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. 	Third Grade Science
	Graphing with Rain Gauges	<ul style="list-style-type: none"> • 3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. 	Third Grade Science
	Edible Aquifer	<ul style="list-style-type: none"> • 3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. • S.3-5.SI.1 Identify and generate questions that can be answered through scientific investigations. <ul style="list-style-type: none"> ○ Students ask questions that they can answer with scientific knowledge combined with their own observations. ○ Students recognize that different questions lead to different types of investigations. • S.3-5.SI.3 Plan and conduct scientific investigations. <ul style="list-style-type: none"> ○ Students’ explanations should reflect the evidence they have obtained in their investigations. 	Third Grade Science
	Fractals & Fractions in Triangles	<ul style="list-style-type: none"> • 3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape. 	Third Grade Mathematics

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Mathematics	Energy Math	<ul style="list-style-type: none"> • 3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. 	Third Grade Mathematics
	Math Rocks!	<ul style="list-style-type: none"> • 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters. 	Third Grade Mathematics
	Flying Bags	<ul style="list-style-type: none"> • 3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partitions a shape into 4 parts with equal area, and describe the area of each part as $1/4$ of the area of the shape. 	Third Grade Mathematics
	Design & Cook with Solar Ovens	<ul style="list-style-type: none"> • 3.MD.C.5 Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 	Third Grade Mathematics