

Fifth Grade STEM Unit

STEM Area	Name of Lesson:	Iowa/Common Core Concept or Skill	Where to Find It @TeachersGoingGreen.com
Science	Nature Recycles, Too!	<ul style="list-style-type: none"> • 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. 	Fifth Grade Science
	Soil Composition	<ul style="list-style-type: none"> • 5-PS1-3 Make observations and measurements to identify materials based on their properties. 	Fifth Grade Science
	Photosynthesis, Oh the Drama!	<ul style="list-style-type: none"> • 5-PS3-1 Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. • S.3-5.SI.3 Plan and conduct scientific investigations. <ul style="list-style-type: none"> ○ Students should engage in systematic observation, making accurate measurements, and identifying and controlling variables. 	Fifth Grade Science
	Making an Impression	<ul style="list-style-type: none"> • 5-PS1-3 Make observations and measurements to identify materials based on their properties. • 5-PS1-4 When two or more different substances are mixed, a new substance with different properties may be formed. 	Fifth Grade Science

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Technology	Investigation Through PowerPoint Presentation	<ul style="list-style-type: none"> • 5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 	Fifth Grade 21st Century Skills
	Rainfall Harvest, Home & Earth	<ul style="list-style-type: none"> • 5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. • 5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. 	Fifth Grade Mathematics
	The Giving Trees	<ul style="list-style-type: none"> • 5-ESS3-C Human Impacts on Earth Systems Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. (5-ESS3-1) *Apply 5th grade science standard listed above rather than 4th grade 	*Fourth Grade 21st Century Skills
	Earth Faces a Serious Problem	<ul style="list-style-type: none"> • 3-5ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 	Fifth Grade Social Studies

Engineering	Microbes & Composting	<ul style="list-style-type: none"> • 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. • 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. • S.3-5.SI.3 Plan and conduct scientific investigations. <ul style="list-style-type: none"> ○ Students should engage in systematic observation, making accurate measurements, and identifying and controlling variables. ○ Students understand the concept of a fair test. 	Fifth Grade Science
	Soil Composition	<ul style="list-style-type: none"> • 5-PS1-3. Make observations and measurements to identify materials based on their properties. 	Fifth Grade Science
	Water Around the World	<ul style="list-style-type: none"> • 5-ESS2-2 Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. 	Fifth Grade Social Studies
	Nature Recycles Too!	<ul style="list-style-type: none"> • 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. 	Fifth Grade Science

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Mathematics	Energy Math	<ul style="list-style-type: none"> • 5.MD.A.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems 	Fifth Grade Mathematics
	Forest Field Trip & Decomposition	<ul style="list-style-type: none"> • 5.MD.A.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems 	Fifth Grade Mathematics
	Fractals, Fractions, and Fun	<ul style="list-style-type: none"> • 5.MD.A.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems. • 5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$. Analyze patterns and relationships. • 5.G.B.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. 	Fifth Grade Mathematics