

First Grade STEM Unit

STEM Area	Name of Lesson:	Iowa/Common Core Concept or Skill	Where to Find It @ TeachersGoingGreen.com
Science	Sunlight	<ul style="list-style-type: none"> • 1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year. 	First Grade Science
	Plants & Animals, Similar & Different	<ul style="list-style-type: none"> • LS1.A: Structure and Function- All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. • LS1.B: Growth and Development of Organisms- Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. • LS1.D: Information Processing- Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. 	First Grade Science
	Creating Dichotomous Key with Plant Fractals	<ul style="list-style-type: none"> • 1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. 	First Grade Science
	Unbelievable, Fantabulous 10 Yard Hike	<ul style="list-style-type: none"> • S.K-2.SI.1 Ask questions about objects, organisms, and events in the environment. <ul style="list-style-type: none"> ○ Students should answer their questions by seeking information from their own observations, investigations and from reliable sources of scientific. • S.K-2.SI.3 Use tools to gather data and extend the senses. <ul style="list-style-type: none"> ○ Students use tools such as rulers, thermometers, watches, balances, spring scales, magnifiers and microscopes to extend their senses and their abilities to gather data. 	First Grade 21st Century Skills

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Technology	Photographing a Math Problem	<ul style="list-style-type: none"> • 1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 	First Grade Mathematics
	Unbelievable, Fantabulous 10 Yard Hike	<ul style="list-style-type: none"> • 21.K-2.ES.1 Communicate and work appropriately with others to complete tasks. <ul style="list-style-type: none"> ○ Work appropriately and productively with others. ○ Use different perspectives to increase innovation and the quality of work. 	First Grade 21st Century Skills
	Nature Recycles, Shouldn't We All?	<ul style="list-style-type: none"> • 21.K-2.ES.4 Develop initiative and demonstrate self-direction in activities. <ul style="list-style-type: none"> ○ Engage in effective problem solving process. 	First Grade 21st Century Skills
	Create a Photo Book	<ul style="list-style-type: none"> • S.K-2.ES.2 Understand and apply knowledge of observable information about daily and seasonal weather conditions. <ul style="list-style-type: none"> ○ Understand that weather changes from day to day and over the seasons. ○ Understand that the sun provides the light and heat necessary to maintain the temperature of the earth. 	First Grade Science
Engineering	Creating a Dichotomous Key	<ul style="list-style-type: none"> • LS1.A Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different • LS1.B Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. • LS1.D Information Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs w/ behaviors that help them survive. Plants also respond to some external inputs. 	First Grade Science
	Critter Creations, Children & Parents	<ul style="list-style-type: none"> • 1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. • S.K-2.LS.1 Living things share some common characteristics that are both similar to and different from non-living things. • S.K-2.LS.1 Different species of plants and animals have different observable characteristics by which they can be classified. 	First Grade Science
	Papermaking	<ul style="list-style-type: none"> • 1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. 	First Grade Mathematics

	Edible Aquifer	<ul style="list-style-type: none"> • K-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 	First Grade Mathematics
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Mathematics	Journal for One Day	<ul style="list-style-type: none"> • 1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. 	First Grade Mathematics
	Papermaking	<ul style="list-style-type: none"> • 1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. 	First Grade Mathematics
	Geometric Collect & Recycle	<ul style="list-style-type: none"> • 1.G.A.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. * Adjust lesson from 2nd grade standard to 1st grade standard as stated above. 	*Second Grade Mathematics
	Photographing a Math Problem	<ul style="list-style-type: none"> • 1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 	First Grade Mathematics