Grade 1 Curriculum
Instructional Plan for FOSS Science
Submitted by Cathy S. Tinkey
Written: June 2021

Revised: June 2021

Content

Type

Objectives

	Content Type	Objectives	Standards	Assessment	Materials
AUGUST & SEPTEMBER	Trees and Weather	SWBAT o	 K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive. K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. 	Teacher observation Oral Assessment Unit activities and science journaling Teacher observation Oral Assessment Unit activities and	Teacher Toolkit: Trees and Weather Investigations Guide: Trees and Weather Teacher Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Trees and Weather Permanent and consumable equipment for students
O C T O B E R	Trees and Weather	SWBAT o observe the sizes, shapes, textures, and colors of tree leaves o compare the shapes of leaves to common geometric shapes o compare the sizes and edges of leaves o record and communicate the similarities and differences among leaves	 Performance Expectations: K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time. K-ESS3-2: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface. K-PS3-2: Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.* K-2-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. K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 	Teacher observation Oral Assessment Unit activities and science journaling Teacher observation Oral Assessment Unit activities and	Teacher Toolkit: Trees and Weather Investigations Guide: Trees and Weather Teacher Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Trees and Weather Permanent and consumable equipment for students

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Assessment

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N O V E M B E R	Trees and Weather	SWBAT o observe and compare	 K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time. K-ESS3-2: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface. K-PS3-2: Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.* K-2-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. K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 	•	Teacher observation Oral Assessment Unit activities and science journaling	Teacher Toolkit: Trees and Weather Investigations Guide: Trees and Weather Teacher Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Science Resources: Trees and Weather FOSS Science Resources: Trees and Weather Permanent and consumable equipment for students
D E C E M B E R	 15 Materials and Motion 	SWBAT o describe how wood interacts with water, and how it can be changed and recycled o explore the engineering of wood products; test how many passengers different kinds of wood can support in water o observe and compare properties of several kinds of paper and communicate observations o determine the usefulness of different kinds of paper for writing and drawing	 Performance Expectations: K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull K-2-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. K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 	•	Teacher observation Oral Assessment Unit activities and science journaling	Materials and Motion Teacher Toolkit, Investigations Guide, Teacher Resources, FOSS Science Resources, Permanent and consumable equipment for students

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J A N U A R Y	21 Materials and Motion	SWBAT o observe and compare properties and structures of fabric and how they are used o observe how fabric interacts with water o use knowledge of the properties of materials to design and build a model structure for a specific purpose	 K-2-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. K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 	Teacher observation Oral Assessment Unit activities and science journaling	Materials and Motion Teacher Toolkit, Investigations Guide, Teacher Resources, FOSS Science Resources, Permanent and consumable equipment for students
F E B R U A R Y	18 Materials and Motion	SWBAT o observe and describe how objects move o use knowledge of the motion of rolling objects to solve a problem	 K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull 	Teacher observation Oral Assessment Unit activities and science journaling	Materials and Motion Teacher Toolkit, Investigations Guide, Teacher Resources, FOSS Science Resources, Permanent and consumable equipment for students

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M A R C H	17 Animals Two by Two	SWBAT o observe and compare the structures and behavior of two kinds of fish and ask questions based on observations o observe and record changes in an aquarium over time	 Performance Expectations: K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive. K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. 	Teacher observation Oral Assessment Unit activities and science journaling	Animals Two by Two Teacher toolkit, Investigations Guide, Teacher Resources FOSS science Resources, Permanent and consumable equipment for students
A P R I L	20 Animals Two by Two	SWBAT o observe the structures and behaviors of land snails in a terrarium and water snails in an aquarium o describe, compare, and communicate the similarities and differences of the two kinds of snails	 Performance Expectations: K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive. K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. 	Teacher observation Oral Assessment Unit activities and science journaling Teacher observation	Animals Two by Two Teacher toolkit, Investigations Guide, Teacher Resources FOSS science Resources, Permanent and consumable equipment for students

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1	M A Y	 24 Animals Two by Two 	SWBAT o observe and compare the structures and behaviors of redworms and night crawlers o compare and communicate how redworms and night crawlers are the same and different o compare the structures and behaviors of two kinds of isopods, commonly known as pill bugs and sow bugs o describe and communicate observations of several kinds of animals living together in a terrarium habitat	K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	•	Teacher observation Oral Assessment Unit activities and science journaling	Animals Two by Two Teacher toolkit, Investigations Guide, Teacher Resources FOSS science Resources, Permanent and consumable equipment for students