Physical Science: Matter and Its Interactions

Next Generation Science Standards (NGSS): Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. {Clarification statement: Observations could include color, texture, hardness, and flexibility. Patterns could include similar properties that different materials share.} **2-PS1-1**

(MLS) GLE/ Description: Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. {Clarification statement: Observations could include color, texture, hardness, and flexibility. Patterns could include similar properties that different materials share.} **2.PS1.A.1**

Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can observe, describe, and sort materials using my five senses.	2.GM.B.4 (measurement) 2.GM.B.7 (measurement)	1	Property & Structure of Matter	States of matter….solid, liquid & gas

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Next Generation Science Standards (NGSS): Analyze data obtained from testing materials to determine which materials have the properties that are best suited for the intended purpose. [Clarification statement: Examples of properties could include strength, flexibility, hardness, texture, and absorbency.] **2-PS1-2.**

(MLS) GLE/ Description: Analyze data obtained from testing materials to determine which materials have the properties that are best suited for the intended purpose. [Clarification statement: Examples of properties could include strength, flexibility, hardness, texture, and absorbency.] **2.PS1.A.2**

Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can decide which materials are best to use for a project.	2.R.1.A.b (ask relevant questions)	3	Property & Structure of Matter	States of matter….solid, liquid & gas Exploring Science pgs 24-41

Physical Science: Matter and Its Interactions				
Next Generation Science Standards (NGSS): n/a				
(MLS) GLE/ Description: Analyze data to determine how the motion of an object changed by the applied force or mass of an object. **2.PS2.A**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can explain how objects move and what affects the movement.	2.R.2.A.d d (cause & effect) 2.R.1.A.b (ask relevant questions)	3	Property & Structure of Matter - **Motion**	Bill Nye Motion video Math in Focus Shapes Chapter

Physical Science: Matter and Its Interactions				
Next Generation Science Standards (NGSS): n/a				
(MLS) GLE/ Description: Plan and conduct investigations to provide evidence that changes in vibration create change in sound. **2.PS4.A**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can experiment with materials to change the sound.	2.R.2.A.d d (cause & effect) 2.R.1.A.b (ask relevant questions)	3	Property & Structure of Matter - **Sound**	

Life Science: Life Cycles and Traits				
Next Generation Science Standards (NGSS): Plan and conduct investigations to determine if plants need sunlight and water to grow. **2-LS2-1**				
(MLS) GLE/ Description: Plan and conduct investigations on the growth of plants when the growing conditions are altered. **2.1.S2.A.1**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can determine how sunlight and water help plants grow.	2.R.2.A.d d (cause & effect) 2.R.1.A.b (ask relevant questions)	3	Interdependent Relationships in the Ecosystem	Journeys Lesson 25 From Seed to Plant Exploring Science pgs 44-49

Earth Systems: Weather and Climate				
Next Generation Science Standards (NGSS): Use information from several sources to provide evidence that Earth events can occur quickly or slowly. [Clarification statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happened quickly and erosion of rocks, which occurs slowly.] **2-ESS1-1.**				
(MLS) GLE/ Description: Use information from several sources to provide evidence that Earth events can occur quickly or slowly. [Clarification statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happened quickly and erosion of rocks, which occurs slowly.] **2.ESS1.C**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can prove that the Earth can change quickly or slowly.	2.R.2.A.d d (cause & effect)		Earth Systems: Processes that Shape the Earth	Bill Nye Erosion, Volcanoes Exploring Science pgs 74-100

Earth Systems: Weather and Climate				
Next Generation Science Standards (NGSS): Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. [Clarification statement: Examples of solutions could include different designs of dikes, and windbreaks to hold back wind and water and different designs for using shrubs, grass, and trees to hold back the land.] **2-ESS2-1.**				
(MLS) GLE/ Description: Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. [Clarification statement: Examples of solutions could include different designs of dikes, and windbreaks to hold back wind and water and different designs for using shrubs, grass, and trees to hold back the land.] **2.ESS2.A**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can compare and decide how to best help prevent wind and water damage.	2.R.1.A.b (ask relevant questions)	4	Earth Systems: Processes that Shape the Earth	Journeys Lesson 8 Super Storms Exploring Science pgs 84-100

Earth Systems: Weather and Climate				
Next Generation Science Standards (NGSS): Develop a model to represent the shapes and kinds of land and bodies of water in our area. **2-ESS2-2.**				
(MLS) GLE/ Description: Develop a model to represent the shapes and kinds of land and bodies of water in our area. **2.ESS2.B**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can create and use maps to show the land and water in our area.	SS5.B.1&2	2	Earth Systems: Processes that Shape the Earth	Exploring Science pgs 100-108

Earth Systems: Weather and Climate				
Next Generation Science Standards (NGSS): Obtain information to identify where water is found on Earth and that it can be solid or liquid. **2-ESS2-3.**				
(MLS) GLE/ Description: Obtain information to identify where water is found on Earth and that it can be solid or liquid. **2.ESS2.C**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can use maps to identify solid or liquid water on Earth.	SS.5.B.1&2	1	Earth Systems: Processes that Shape the Earth	Exploring Science pgs 108-113

Engineering Design				
Next Generation Science Standards (NGSS): Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **K-2-ETS1-1.**				
(MLS) GLE/ Description: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **2.ETS.1.A**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can solve a problem.	2.R.1.A.b (ask relevant questions)	4	Engineering Design	Math in Focus - integrated throughout Exploring Science pgs 24-25, 36-37, 30-31, 46-47, 48-49, 60-61, 70-71, 88-89, 106-107

Engineering Design				
Next Generation Science Standards (NGSS): 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-ETS1-2.**				
(MLS) GLE/ Description: 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. **2.ETS1.B**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can think and create to solve problems.	2.GM.A.1a (2D shapes) 2.GM.A.1b (3D shapes)	4	Engineering Design	Exploring Science pgs 24-25, 36-37, 30-31, 46-47, 48-49, 60-61, 70-71, 88-89, 106-107

Engineering Design				
Next Generation Science Standards (NGSS): Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. **K-2-ETS1-3.**				
(MLS) GLE/ Description: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. **2.ETS1.C**				
Measurable Learner Objective	**Integrated Skills/ Crosscutting**	**DOK**	**Unit**	**Instructional Strategies/Student Activities/ Resources**
I can compare and evaluate the best solution to a problem.	2.R.1.A.b (ask relevant questions)	4	Engineering Design	Exploring Science pgs 24-25, 36-37, 30-31, 46-47, 48-49, 60-61, 70-71, 88-89, 106-107