Science CCSM	2nd Grade	Quarter 1		2024-2025
Content/Resources	*Skills*	*Related Skills/Modifications*	*Vocabulary*	*Assessment*
Unit 1: Earth's Landscape **Science Standards:** **2.E1U1.4** Observe and investigate how wind and water change the shape of the land resulting in a variety of landforms. **2E1U1.5** Develop and use models to represent that water can exist in different states and is found in oceans, glaciers, lakes, rivers, ponds, and the atmosphere. **Resources:** Inspire Curriculum Science readers Science Investigator Magazine Collaboration Kit STEM Connections (Online) Storyline (Online) Google Expeditions **Websites:** https://mysteryscience.com/	**Learning Progression:** Wind and water can change the shape of the land. The resulting landforms, together with the materials on the land, provide homes for living things. Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. It carries soil and rocks from one place to another and determines the variety of life forms that can live in a particular location. **Science Process Skills:** System Models Sketches Observations/Observe Identify Data Patterns Physical Models	**Unit 1** **Module Opener:** How can we describe the shape of land and water on Earth? **Essential Questions:** ● Lesson 1: How can we describe the land around us? ● Lesson 2: How can we describe the shape of land on Earth? ● Lesson 3: Where can we find water on Earth? Is it solid or liquid? **SWBAT/Objectives:** **Module Opener:** SWBAT use models to learn about land and water on Earth. **Lesson One:** SWBAT develop and use models to observe patterns in where land and water are located. **Lesson Two:**	**Unit 1** compass rose landscape map slope symbol canyon continent island landform mountain plain Valley Glacier Lake Ocean Pond River stream	**Unit 1** **Pre-assessment** Includes Page Keeley Science Probes and McGraw-Hill Module Pretest **Formative Assessment** Includes Claim-Evidence-Reasoning, Three-Dimensional Thinking questions, Talk About It, Inquiry Activities, Quick Check, and Page Keeley Science Probes **Summative Assessment** Includes Lesson Reviews,

https://wonderopolis.org/ https://www.google.com/earth/	Record Label Diagrams **Crosscutting Concepts:** patterns; cause and effect; scale, proportion, and quantity; systems and system models; stability and change.	SWBAT develop and use models to observe patterns in the land found on Earth. **Lesson Three:** SWBAT obtain, evaluate, and communicate information to observe patterns in where water is found on Earth. **STEM Module Project:** SWBAT use what they have learned throughout the module to work in pairs or small groups to build a model of land or water in their state. **Module Wrap-Up**: SWBAT use what they have learned throughout the module to explain land and water and where it can be found on Earth.		McGraw-Hill Lesson Checks and Module Test, Vocabulary Check, and STEM Module Project

Science CCSM	2nd Grade	Quarter 2		2024-2025
Content/Resources	*Skills*	*Related Skills/Modifications*	*Vocabulary*	*Assessment*
Unit 2: Properties and Changes to Materials **Science Standards:** **2.P1U1.1** Plan and carry out an investigation to determine that matter has mass, takes up space, and is recognized by its observable properties; use the collected evidence to develop and support an explanation. **2.P1U1.2** Plan and carry out investigations to gather evidence to support an explanation on how heating or cooling can cause a phase change in matter. **2.P4U1.3** Obtain, evaluate, and communicate information about ways heat energy can cause change in objects or materials. **Resources:** Inspire Curriculum Science readers Science Investigator Magazine Collaboration Kit STEM Connections (Online)	**Learning Progression:** All the 'stuff' encountered in everyday life, including air, water and different kinds of solid substances, is called matter because it has mass, and therefore weight on Earth, and takes up space. Different materials are recognizable by their properties, some of which are used to classify them as being in the solid, liquid or gas state. Different kinds of matter exist (e.g., wood, metal, water), and many of them can be either solid or liquid, depending on temperature. **Science Process Skills:** Scientific Journals Diagrams Classify Model Observation/Observe Identify Data	**Unit 2** **Module 2.1: Properties of Materials** **Module Opener:** How do properties of materials determine how people use them? **Essential Questions:** ● **Lesson One:** What are the different ways we can sort or classify materials? ● **Lesson Two:** How do people use materials? **SWBAT/Objectives** **Module Opener:** SWBAT investigate and analyze materials to determine which is best for intended purpose. **Lesson One:** SWBAT plan and conduct investigations to observe patterns in how materials can be described and classified by their observable properties.	**Unit 2** absorb liquid property solid texture flexible strong assemble disassemble cool heat reversible temperature	**Unit 2** **Pre-Assessment** Includes Page Keeley Science Probes and McGraw-Hill Module Pretest **Formative Assessment** Includes Three-Dimensional Thinking questions, Talk About It, Inquiry Activities, Quick Check, and Page Keeley Science Probes **Summative Assessment** Includes Lesson Reviews, McGraw-Hill Lesson Checks and Module Test, Vocabulary Check, and STEM

Storyline (Online) Google Expeditions **Websites:** https://mysteryscience.com/ https://wonderopolis.org/ https://www.google.com/earth/	**Crosscutting Concepts:** cause and effect; scale, proportion, and quantity; systems and system models; energy and matter; stability and change.	**Lesson Two:** SWBAT test, analyze, and retest materials to determine which materials are best for their intended purpose. **STEM Module Project:** SWBAT use what they have learned throughout the module about materials to analyze and interpret data and compare different solutions to design and make a model of a cliff house. **Module Wrap-Up:** SWBAT use what they have learned throughout the module to explain materials and how they are chosen for use according to their properties. **Module 2.2: Properties of Materials** **Module Opener** What changes can happen to materials? **Essential Questions:** • **Lesson One:** How can pieces be arranged in different ways? • **Lesson Two:** How can heating and cooling		Module Project

		change materials? **<u>SWBAT/Objectives</u>** **Module Opener:** SWBAT investigate changes that can happen to materials **Lesson One:** SWBAT construct explanations about how an object made of small pieces can break into pieces and be made into a new object. **Lesson Two:** SWBAT construct an argument from evidence that some changes caused by heating or cooling materials can be reversed and some cannot. **STEM Module Project:** SWBAT use what they have learned throughout the module to design bricks and make a brick wall. **Module Wrap-Up:** SWBAT use what they have learned throughout the module to explain materials, how they are made, and how they can change.		

Science CCSM	2nd Grade	Quarter 3		2024-2025
Content/Resources	*Skills*	*Related Skills/Modifications*	*Vocabulary*	*Assessment*
Unit 3: Earth's Changing Landscape **Science Standards:** **2.E1U2.6** Analyze patterns in weather conditions of various regions of the world and design, test, and refine solutions to protect humans from severe weather. **2.E1U3.7** Construct an argument from evidence regarding positive and negative changes in water and land systems that impact humans and the environment. **2.E2U1.8** Observe and explain the Sun's Position at different times during a twenty four hour period and changes in the apparent shape of the Moon from one night to another. **Resources:** Inspire Curriculum Science readers	**Learning Progression:** Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. Designs can be conveyed through sketches, drawings, or physical models. Because there is always more than one possible solution to a problem, it is useful to compare designs, test them, and discuss their strengths and weaknesses. **Science Process Skills:** System Models Sketches Observations/Observe Identify Data Patterns	**Unit 3** **Module Opener:** How does Earth's landscape change? **Essential Questions:** ● **Lesson One:** How can wind and water change Earth's landscape? ● **Lesson Two:** How can Earth's landscape change quickly? ● **Lesson Three:** How can people help to slow or prevent changes to Earth's landscape? **SWBAT/Objectives** **Module Opener:** SWBAT learn about changes to Earth's landscape and design and compare ways to reduce wind and water erosion. **Lesson One:** SWBAT begin to make observations and construct explanations for changes to Earth's landscape that can	**Unit 3** erosion weathering earthquake erupt Flood Landslide Volcano natural resource prevent solution	**Unit 3 Pre-Assessment** Includes Page Keeley Science Probes and McGraw-Hill Module Pretest **Formative Assessment** Includes Three-Dimensional Thinking questions, Talk About It, Inquiry Activities, Quick Check, and Page Keeley Science Probes **Summative Assessment** Includes Lesson Reviews, McGraw-Hill Lesson Checks

Science Investigator Magazine Collaboration Kit STEM Connections (Online) Storyline (Online) Google Expeditions ****Please note: Standard 2.E2U1.8 can be met using the following page references from *Inspire Science* Grade 5: Unit 4: Earth and Space Patterns p.34-35**** **Websites:** https://mysteryscience.com/ https://wonderopolis.org/ https://www.google.com/earth/	Physical Models Record Label Diagrams **Crosscutting Concepts:** patterns; cause and effect; scale, proportion, and quantity; systems and system models; stability and change.	happen very slowly. **Lesson Two:** SWBAT begin to make observations and construct explanations for changes to Earth's landscape that can happen quickly. **Lesson Three:** SWBAT develop and use models to compare multiple solutions to slow or prevent changes to Earth's landscape. **STEM Module Project:** SWBAT use what they have learned throughout the module to design and compare beach erosion models. **Module Wrap-Up:** SWBAT use what they have learned throughout the module to construct explanations and design a solution for beach erosion using the Engineering Design Process.		and Module Test, Vocabulary Check, and STEM Module Project

Science CCSM	2nd Grade	Quarter 4		2024-2025
Content/Resources	*Skills*	*Related Skills/Modifications*	*Vocabulary*	*Assessment*
Unit 4: Living Things and Habitats **Science Standards:** **2.L2U1.9** Obtain, analyze, and communicate evidence that organisms need a source of energy, air, water, and certain temperature conditions to survive. **2.L2U1.10** Develop a model representing how life on Earth depends on energy from the Sun and energy from other organisms. **Resources:** Inspire Curriculum Science readers Science Investigator Magazine Collaboration Kit STEM Connections (Online) Storyline (Online) Google Expeditions **Websites:** https://mysteryscience.com/ https://wonderopolis.org/ https://www.google.com/earth/	**Learning Progression:** All living things need food as their source of energy as well as air, water, and certain temperature conditions. Plants containing chlorophyll can use sunlight to make the food they need and can store food that they do not immediately use. Animals need food that they can break down, which comes either directly by eating plants (herbivores) or by eating animals (carnivores) which have eaten plants or other animals. Animals are ultimately dependent on plants for their survival. The relationships among organisms can be	**Unit 2** **Module 4.1: Plants in Landscapes** What do plants need from their habitats? **Essential Questions:** ● **Lesson One:** What do plants need to grow? ● **Lesson Two:** What do animals do to help pollinate plants and disperse seeds? **SWBAT/Objectives** **Module Opener:** SWBAT make observations to learn about the needs of plants and how plants help to make more plants. **Lesson One:** SWBAT plan and conduct investigations to determine if plants need sunlight and water to grow.	**Unit 4** Leaf Mineral Nutrient Root stem disperse flower Pollen pollination seed habitat shelter survive Arctic Desert Forest Grassland Ocean Pond salt water fresh water river	**Unit 4 Pre-Assessment** Includes Page Keeley Science Probes and McGraw-Hill Module Pretest **Formative Assessment** Includes Three-Dimensional Thinking questions, Talk About It, Inquiry Activities, Quick Check, and Page Keeley Science Probes **Summative Assessment** Includes Lesson Reviews, McGraw-Hill Lesson Checks and Module Test,

	represented as food chains and food webs. All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. <u>Science Process Skills:</u> Model Observation/Observe Identify Data Pattern Record Label Diagram <u>Crosscutting Concepts:</u> cause and effect systems and system models energy and matter structure and function stability and change	**Lesson Two:** SWBAT develop and use models to show that the structure of plant and animal parts aid in pollination and seed dispersal. **STEM Module Project:** SWBAT use what they have learned throughout the module to design and make a model of a pollinator. **Module Wrap-Up:** SWBAT use what they have learned throughout the module to explain how animals help plants make new plants. **<u>Module 4.2 Living Things in Habitats</u>** **<u>Module Opener</u>** What do living things need to survive in their habitat? **<u>Essential Questions:</u>** ● **Lesson One:** What kinds of living things are found near us? ● **Lesson Two:** What living things can be found in a land habitat? ● **Lesson Three:** What plants		Vocabulary Check, and STEM Module Project

		and animals live in a water habitat? **<u>SWBAT/Objectives</u>** **Module Opener:** SWBAT learn about the diversity of life in local, land, and water habitats. **Lesson One:** SWBAT plan and carry out investigations to make observations of plants and animals to compare the diversity of life in the local habitat. **Lesson Two:** SWBAT plan and carry out investigations to make observations of plants and animals to compare the diversity of life in land habitats. **Lesson Three:** SWBAT plan and carry out investigations to make observations of plants and animals to compare the diversity of life in water habitats. **STEM Module Project:**		

		SWBAT research and use what they have learned throughout the module to make a model of a habitat. **Module Wrap-Up:** SWBAT use what they have learned throughout the module to explain the diversity of life in the phenomenon photo		