Dennis-Yarmouth Regional School District Science Scope and Sequence Grade 2

Unit Name	Unit Description / Overview	Stage 1: Desired Results Enduring Understandings - Students will understand that	Essential Questions	Standards
<u>Master Unit 1 Mapping Land and</u> <u>Water</u>	In Grade 2, students learn that water is found everywhere on Earth and takes different forms and shapes. They map landforms and bodies of water and observe that flowing water and wind, shapes these landforms. The students observe the effects of water and wind erosion.	The force of wind and water can move materials and change the shape of the land. Landforms and bodies of water on Earth have specific names and designations on maps.	What do maps show? Why are maps important? Where can water be found on Earth? In what forms does water exist on Earth?	2-ESS2-2. Map the shapes and types of landforms and bodies of water in an area. 2-ESS2-3. Use examples obtained from informational sources to explain that water is found in the ocean, rivers and streams, lakes and ponds, and may be solid or liquid.
<u>Master Unit 2 Dealing with Changes</u> <u>to the Earth</u>	In Grade 2, students start to look beyond the structures of individual plants and animals to looking at the environment in which the plants and animals live as a provider of the food, water, and shelter that the organisms need. They learn that water is found everywhere on Earth and takes different forms and shapes. They map landforms and bodies of water and observe that flowing water and wind, shapes these landforms. The students observe the effects of water and wind erosion.	The force of wind and water can move materials and change the shape of the land. Landforms and bodies of water on Earth have specific names and designations on maps.	What areas are at risk? How could this change the landscape?	2-ESS2-1. Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. 2-ESS2-4(MA). Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform. 2.K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same design problem to compare the strengths and weaknesses of how each object performs.
<u>Master Unit 3 Selecting and Using</u> <u>Materials in the Design Process</u>	Students identify and classify materials based on properties such as color, strength, texture, hardness, flexibility, and absorbency. They use various objects for classification that help them understand how to classify and describe materials as well as how the properties of materials relate to their use in the designed world. Through scientific observation and writing students manipulate and observe the properties of different materials. They rate materials by testing properties and ultimately design and build a transport tool using their knowledge of material properties. Students use science notebooks to record and analyze their findings.	Matter can be described and classified by its observable properties. Different properties are suited to different purposes. A great variety of objects can be built up from a small set of pieces. People can solve a problem through engineering and comparing/testing designs using their knowledge of the natural world.	What physical properties of materials are best suited to keep things cold? How could a backpack be made into a shelter? What can you carry with you to use to build a fire?	 2.K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same design problem to compare the strengths and weaknesses of how each object performs. 2P51-1. Describe and classify different kinds of materials by observable properties of color, flexibility, hardness, texture, and absorbency. 2.PS1-2. Test different materials and analyze the data obtained to determine which materials have the properties that are best suited for an intended purpose. 2.PS1-3. Analyze a variety of evidence to conclude that when a chunk of material is cut or broken into pieces, each piece is still the same material and, however small each piece is, has weight. Show that the material properties of a small set of pieces do not change when the pieces are used to build larger objects. 2.PS1-4. Construct an argument with evidence that some changes to materials caused by heating or cooling can be reversed and some cannot.

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Master Unit 4 Organisms - Needs & Interactions	structures of individual plants and animals to	Plants and animals depend on each other for survival. Plants and animals depend on the non-living parts of their environment to survive. There is a relationship between the number and types of organisms in an environment.	animals pollinate plants and move plant seeds around? What do plants and animals need to survive?	2-LS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. 2-LS4-1. Use texts, media, or local environments to observe and compare (a) different kinds of living things in an area, and (b) differences in the kinds of living things living in different types of areas.