ELIZABETH PUBLIC SCHOOLS
Every child, Achieving Excellence

| Marking Period 1 (MP1) | Science Curriculum Pacing Guide Grade 2 |
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| **MP1**<br><br>**Standards for Science Content** | 2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. (U2L1)<br><br>2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. (U2L1)<br><br>2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. (U2L2)<br><br>2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. (U2L3)<br><br>K-2-ETS1-1 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. (U1; U2L1)<br><br>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. (U1)<br><br>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. (U1) |
| **MP1**<br><br>**Topics** | Unit 1- Engineering Design Process<br>Unit 2- Matter |
| **MP1**<br><br>**Skills/Concepts** | ▪ A situation can be approached as a problem to be solved. Asking questions and gathering information are helpful. Before beginning to design a solution, it is important to clearly understand the problem. (U1)<br>▪ People can use a design process to find a solution to a problem. Ramps help people move heavy objects from one place to another. It is easier to push an object up a ramp than to lift the object. (U1)<br>▪ The shape of an object helps it function as needed to solve a given problem. (U1)<br>▪ Designs can have both good and flawed features. People test different solutions to compare each one and to see which one is best suited to solve a given problem. (U1)<br>▪ There is always more than one possible solution to a problem. (U1)<br>▪ Different kinds of matter exist. Matter can be described and classified by its properties. Different properties are suited to different purposes. (U2)<br>▪ Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (U2)<br>▪ Patterns can be observed. (U2)<br>▪ Simple tests can be designed to gather evidence. (U2)<br>▪ Every human-made product is designed by applying some knowledge of the natural world. (U2)<br>▪ A great variety of objects can be built up from a small set of pieces. (U2)<br>▪ Objects may break into smaller pieces and be put together into larger pieces or change shapes. (U2) |
| **MP1**<br><br>**Core Materials** | HMH Into Science |

| Marking Period 2 (MP2) | Science Curriculum Pacing Guide Grade 2 |
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| **MP2**<br><br>**Standards for Science Content** | 2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. (U2L3)<br><br>2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid. (U3L1)<br><br>2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area. (U3L2) |
| **MP2**<br><br>**Topics** | Unit 2 Lesson 3: Matter Can Change<br>Unit 3: Earth's Surface |
| **MP2**<br><br>**Skills/Concepts** | • Matter can change in different ways. (U2L3)<br>• Water is found in the ocean, rivers, lakes, and ponds. (U3L1)<br>• Water exists as solid ice and in liquid form. (U3L1)<br>• Patterns in the natural world can be observed. (U3L1)<br>• Events have causes that generate observable patterns. (U3L1)<br>• Different bodies of water can be found on Earth. (U3L1)<br>• Water can look and feel different depending on the temperature. (U3L1)<br>• Modeling landforms helps us understand Earth's surface. (U3L2)<br>• Maps can show Earth's landforms and bodies of water. (U3L2)<br>• Maps show where things are located. One can map the shapes and kinds of land and water in any area. (U3L2)<br>• Natural objects exist from the very small to the immensely large. (U3L2) |
| **MP2**<br><br>**Core Materials** | HMH Into Science |

| Marking Period 3 (MP3) | Science Curriculum Pacing Guide Grade 2 |
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| **MP3** | 2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly. (U4L1-3)<br><br>2-ESS2-1 Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. (U4L3)<br><br>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. (U4L3)<br><br>2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.(U5L1) |
| **MP3**<br><br>**Topics** | Unit 4 - Changes to Earth's Surface<br>Unit 5 – Lesson 1- Environments for Living Things |
| **MP3**<br><br>**Skills/Concepts** | Observable phenomena exist from very short to very long time periods. (U4 L1)<br>Weathering and erosion can cause slow changes on Earth. (U4 L1)<br>Wind and water gradually break down rocks into smaller pieces and move them away. (U4 L1)<br>Some changes on Earth's surface can occur slowly.(U4L1)<br>Water is one of the forces that can slowly change Earth's surface. (U4 L1)<br>Rocks can get smaller over time.(U4 L1)<br>Different events can quickly change Earth's surface.(U4 L2)<br>An earthquake can quickly change Earth's surface by shifting land or causing cracks to form.(U4 L2)<br>A volcano can quickly change Earth's surface by causing new land to form when lava hardens.(U4 L2)<br>Moving water can quickly change Earth's surface by washing away soil.(U4 L2)<br>Rapid changes happen to Earth's surface, but people can help prevent some of these changes. (U4 L3)<br>There are ways to prevent changes to land due to wind.(U4 L3)<br>People choose different solutions to help prevent or slow changes to Earth's surface caused by water.(U4 L3)<br>A situation that people want to change can be solved through engineering.(U4 L3)<br>Asking questions and gathering information are helpful. (U4 L3)<br>Before beginning to design, it is important to understand the problem.(U4 L3)<br>Designs can be sketches. (U4 L3)<br>There is more than one solution to a problem. (U4 L3)<br>Scientists study the natural and material world.(U4 L3)<br>Developing and using technology has impacts on the natural world. (U4 L3)<br>Wind and water can change the shape of the land. (U4 L3)<br>Plants depend on water and light to grow. (U5L1)<br>Events have causes that generate observable patterns. (U5L1) |
| **MP3**<br><br>**Core Materials** | HMH Into Science |

| Marking Period 4 (MP4) | Science Curriculum Pacing Guide Grade 2 |
|---|---|
| **MP4**<br><br>**Standards for Science Content** | 2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.<br><br>2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.<br><br>2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.<br><br>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. |
| **MP4**<br><br>**Topics** | Unit 5- Environments for Living Things |
| **MP4**<br><br>**Skills/Concepts** | Plants depend on water and light to grow. (U5L1)<br>Events have causes that generate observable patterns. (U5L1)<br>Plants depend on animals for pollination or to move their seeds around. (U5L2)<br>Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for solutions to other people. (U5L2)<br>The shape and stability of structures of natural and designed objects are related to their function(s). (U5L2)<br>There are many different kinds of living things in any area, and they exist in different places on land and in water. (U5L3)<br>Patterns in the natural and human designed world can be observed. (U5L3) |
| **MP4**<br><br>**Core Materials** | HMH Into Science |