**Standards Map for Kindergarten Through Grade Eight**

**Grade 2 – California Next Generation Science Standards**

**2-LS2 Ecosystems: Interactions, Energy, and Dynamics**

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** | **Performance Expectation** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** |
| **Y** | **N** | **Y** | **N** |
| **SEP** | **Planning and Carrying Out Investigations** Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.* Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-LS2-1)
 | **KEY:****M = Module** **DQ = Driving Question** **L = Lesson** **TE = Teacher Edition****TB = Student Edition known as the Twig Book****LR = Leveled Reader****EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)Key ResourcesL1 **The Plant Problem** text (TB) |  |  |  | **2-LS2-1.****Plan and conduct an investigation to determine if plants need sunlight and water to grow.** [Assessment Boundary: Assessment is limited to testing one variable at a time.] | **KEY:****M = Module** **DQ = Driving Question** **L = Lesson** **TE = Teacher Edition****TB = Student Edition known as the Twig Book****LR = Leveled Reader****EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)Key ResourcesL1 **The Plant Problem** text (TB) |  |  |  |
| **DCI** | **LS2.A: Interdependent Relationships in Ecosystems*** + Plants depend on water and light to grow. (2-LS2-1)
 | **EXAMPLE TWO****Grade 2 Module 4****A Garden for Life**M4\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB) |  |  |  |
| **CCC** | **Cause and Effect** * + Events have causes that generate observable patterns. (2-LS2-1)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ2L1 (TE, TB)L2 (TE, TB)L4 (TE, TB)L5 (TE, TB) |  |  |  |

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Developing and Using Models**Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.* + Develop a simple model based on evidence to represent a proposed object or tool. (2-LS2-2)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L2 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB) L10 (TE, TB) |  |  |  | **2-LS2-2.****Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.\*** | **EXAMPLES****Grade 2 Module 4****A Garden for Life**M4\_DQ3L1 (TE, TB)L2 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **The Nutcracker** videoL2 **Pollination** videoL3 **Specific Pollination** videoL5 **Pollen Power** text (TB)L6 **Tracking Honey Bees** videoL10 **Artificial Pollination** video**Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB))**Grade 2 Module 4****Leveled Reader: Where are the Bees?**Chapter 1 (LR 2-13)Chapter 3 (LR 24-30) |  |  |  |
| **DCI** | **LS2.A: Interdependent Relationships in Ecosystems*** + Plants depend on animals for pollination or to move their seeds around. (2-LS2-2)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L1 (TE, TB)L2 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **The Nutcracker** videoL2 **Pollination** videoL3 **Specific Pollination** videoL5 **Pollen Power** text (TB)L6 **Tracking Honey Bees** videoL10 **Artificial Pollination** video**EXAMPLE TWO****Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)**EXAMPLE THREE****Grade 2 Module 4****Leveled Reader: Where are the Bees?**All chapters (LR 2-30) |  |  |  |
| **DCI** | **ETS1.B: Developing Possible Solutions*** Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people. (secondary to 2-LS2-2)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)L11 (TE, TB)**EXAMPLE TWO****Grade 2 Module 4****Leveled Reader: Where are the Bees?**All chapters (LR 2-30) |  |  |  |
| **CCC** | **Structure and Function*** + The shape and stability of structures of natural and designed objects are related to their function(s). (2-LS2-2)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L2 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **The Nutcracker** videoL2 **Pollination** videoL3 **Specific Pollination** videoL5 **Pollen Power** text (TB)L6 **Tracking Honey Bees** videoL10 **Artificial Pollination** video**EXAMPLE TWO****Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE, TB)**EXAMPLE THREE****Grade 2 Module 4****Leveled Reader: Where are the Bees?**All chapters (LR 2-30) |   |  |  |

**2-LS4 Biological Evolution: Unity and Diversity**

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Planning and Carrying Out Investigations** Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.* + Make observations (firsthand or from media) to collect data, which can be used to make comparisons. (2-LS4-1)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ1L2 (TE, TB) TE (TE, TB)L4 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL2-4 **Habitat Explorer Field Guide** interactiveL2 **Desert Habitat** video |  |  |  | **2-LS4-1.****Make observations of plants and animals to compare the diversity of life in different habitats.** [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.] [Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.] | **EXAMPLES****Grade 2 Module 4****A Garden for Life**M4\_DQ1L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **My Favorite Place** Prior-Knowledge Read-Aloud textL2-4 **Habitat Explorer Field Guide** interactiveL2 **Desert Habitat** videoL6 **Rain Forest Short** videoL8 **Schoolyard Sampling** video**Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)**Grade 2 Module 4****Leveled Reader: Where are the Bees?**Chapter 2 (LR 14-19)Chapter 3 (LR 24-30) |  |  |  |
| **SEP** | ***Connections to Nature of Science*****Scientific Knowledge is Based on Empirical Evidence**Scientists look for patterns and order when making observations about the world. (2-LS4-1) | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ1L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L8 (TE, TB) L10 (TE, TB) |  |  |  |
| **DCI** | **LS4.D: Biodiversity and Humans*** + There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ1L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **My Favorite Place** Prior-Knowledge Read-Aloud textL2-4 **Habitat Explorer Field Guide** interactiveL2 **Desert Habitat** videoL6 **Rain Forest Short** videoL8 **Schoolyard Sampling** video**EXAMPLE TWO****Grade 2 Module 4****Leveled Reader: Where are the Bees?**All chapters (LR 2-30) |  |  |  |

**2-ESS1 Earth’s Place in the Universe**

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Constructing Explanations and Designing Solutions**Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. * + Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-ESS1-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ1L4 ((TE, TB) (TE, TB)L9 (TE, TB))L11 (TE, TB)Key Resources L9 **Earth Changes** media gallery; **Tangier Island** video | . |  |  | **2-ESS1-1.****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 happen quickly and erosion of rocks, which occurs slowly.] [Assessment Boundary: Assessment does not include quantitative measurements of timescales.] | **EXAMPLES****Grade 2 Module 3****Save Our Island!**M3\_DQ1L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)L11 (TE, TB)Key ResourcesL1 **Land Shapes and Forms** Prior-Knowledge Read-Aloud text; **Save the Island** videoL2 **Mount St. Helens** videoL3 **Expanding Islands** Read-Aloud text; **Kilauea** videoL5 **Erosion** visualL6 **Kalahari Flood** videoL7 **Glaciers** videoL9 **Earth Changes** media gallery; **Tangier Island** videoL10 **A Day on Tangier Island** text (TB)**Grade 2 Module 3****Leveled Reader: Incredible Erosion** Chapter 1 (LR 2-15) |  |  |  |
| **DCI** | **ESS1.C: The History of Planet Earth*** + Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ1L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB) L9 (TE, TB)L10 (TE, TB)L11 (TE, TB)Key ResourcesL1 **Land Shapes and Forms** Prior-Knowledge Read-Aloud text; **Save the Island** videoL2 **Mount St. Helens** videoL3 **Expanding Islands** Read-Aloud text; **Kilauea** videoL5 **Erosion** visualL6 **Kalahari Flood** videoL7 **Glaciers** videoL9 **Earth Changes** media gallery; **Tangier Island** videoL10 **A Day on Tangier Island** text (TB)**EXAMPLE TWO****Grade 2 Module 3****Leveled Reader: Incredible Erosion**All chapters (LR 2-30) |  |  |  |
| **CCC** | **Stability and Change*** + Things may change slowly or rapidly. (2-ESS1-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ1L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L10 (TE, TB)L11 (TE, TB))**EXAMPLE TWO****Grade 2 Module 3****Leveled Reader: Incredible Erosion**All chapters (LR 2-30) |  |  |  |

**2-ESS2 Earth’s Systems**

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Constructing Explanations and Designing Solutions**Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. * Compare multiple solutions to a problem. (2-ESS2-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ3L5 (TE, TB)L6 (TE, TB)**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB) |  |  |  | **2-ESS2-1.****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.] | **EXAMPLES****Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)Key Resources L2-3 **Earth Changes** media gallery**Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)L6 (TE, TB)**Grade 2 Module 3****Save Our Island!**M3\_DQ2L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)Key ResourcesL2 **Wave Erosion** videoL3 **Wind Erosion in China** videoL5 **How Can We Save Tangier Island?** text (TB)**Grade 2 Module 3****Leveled Reader: Incredible Erosion**Chapter 3 (LR 24-30) | Y |  |  |
| **DCI** | **ESS2.A: Earth Materials and Systems*** Wind and water can change the shape of the land. (2-ESS2-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ2L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)Key ResourcesL2 **Wave Erosion** videoL3 **Wind Erosion in China** video**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB))**EXAMPLE THREE****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)L6 (TE, TB)**EXAMPLE FOUR****Grade 2 Module 3****Leveled Reader: Incredible Erosion**All chapters (LR 2-30) |  |  |  |
| **DCI** | **ETS1.C: Optimizing the Design Solution*** Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (secondary to 2-ESS2-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ3L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB))Key Resources L2-3 **Earth Changes** media gallery |  |  |  |
| **CCC** | **Stability and Change*** Things may change slowly or rapidly. (2-ESS2-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 ((TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB))L6 ((TE, TB)**EXAMPLE THREE****Grade 2 Module 3****Leveled Reader: Incredible Erosion**All chapters (LR 2-30) |  |  |  |
| **CCC** | ***Connections to Nature of Science*****Science Addresses Questions About the Natural and Material World**Scientists study the natural and material world. (2-ESS2-1) | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ3L2 (TE, TB))L3 ((TE, TB)L5 (TE, TB) |  |  |  |
| **CCC** | ***Connections to Engineering, Technology, and Applications of Science*****Influence of Engineering, Technology, and Science on Society and the Natural World*** Developing and using technology has impacts on the natural world. (2-ESS2-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 (TE, TB)L2 (TE, TB)L3 ((TE, TB)L4 (TE, TB) |  |  |  |

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Developing and Using Models**Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.* Develop a model to represent patterns in the natural world. (2-ESS2-2)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ1L1 (TE, TB)L3 (TE, TB)L5 (TE, TB)L7 (TE, TB)L9 (TE, TB)L10 (TE, TB)**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ2L1 TE, TB)**EXAMPLE THREE****Grade 2 Module 1****My Journey West**M1\_DQ4L3 (TE, TB) L4 (TE, TB)L5 (TE, TB) |  |  |  | **2-ESS2-2.****Develop a model to represent the shapes and kinds of land and bodies of water in an area.** [Assessment Boundary: Assessment does not include quantitative scaling in models.] | **EXAMPLES****Grade 2 Module 1****My Journey West**M1\_DQ1L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L9 (TE, TB)L10 (TE, TB)L11 (TE, TB)Key ResourcesL1 **Changing Landscapes** Prior-Knowledge Read-Aloud text; **My Journey West Trailer** videoL2 **Black Sunday** videoL4 **On the Road** videoL6 **Ways of Seeing the World** video**; Mapping Rio de Janeiro** interactiveL7 **What are Maps?** Read-Aloud textL8 **Pictures from the Sky** videoL10 **Arriving in New Mexico** video**Grade 2 Module 1****My Journey West**M1\_DQ4L3 (TE, TB)L4 (TE, TB))L5 (TE, TB)**Grade 2 Module 1****My Journey West**M1\_DQ2L1 (TE 142-149, TB 43-46)**Grade 2 Module 1****Leveled Reader: What is a Map?** Chapter 1 (LR 2-13)Chapter 2 (LR 14-19) |  |  |  |
| **DCI** | **ESS2.B: Plate Tectonics and Large-Scale System Interactions*** Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ1L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)L6 (TE, TB)L8 (TE, TBL9 (TE, TB)L10 (TE, TB)L11 (TE, TB)Key ResourcesL6 **Ways of Seeing the World** video**; Mapping Rio de Janeiro** interactiveL7 **What are Maps?** Read-Aloud text**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ4L3 (TE, TB)L4 (TE, TB)L5 (TE, T)**EXAMPLE THREE****Grade 2 Module 1****My Journey West****Leveled Reader: What is a Map?** All chapters (LR 2-30) |  |  |  |
| **CCC** | **Patterns*** Patterns in the natural world can be observed. (2-ESS2-2)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ1L2 (TE, TB)L3 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L9 (TE, TB)L10 (TE, TB)L11 (TE, TB)**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ2L1 (TE 142-149, TB 43-46)**EXAMPLE THREE****Grade 2 Module 1****My Journey West**M1\_DQ4L3 (TE, TB) |  |  |  |

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Obtaining, Evaluating, and Communicating Information**Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.* Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ2L1 (TE, TB)L4 (TE, TB)L6 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL10 **Water Patterns** interactive; **Water and Ice Patterns** interactive**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ3L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)Key ResourcesL2 **Water on Earth** video**EXAMPLE THREE****Grade 2 Module 1****Leveled Reader: What is a Map?** All chapters (LR 2-30) |  |  |  | **2-ESS2-3.****Obtain information to identify where water is found on Earth and that it can be solid or liquid.** | **EXAMPLES****Grade 2 Module 1****My Journey West**M1\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **Continental Divide** videoL2 **Journey of a River** videoL6 **Snow Science** text (TB)L10 **Almost There** video; **Water Patterns** interactive; **Water and Ice Patterns** interactive**Grade 2 Module 1****My Journey West**M1\_DQ3L1 (TE, TB)L2 (TE, TB)L3 (TE, TB) L4 (TE, TB) L5 (TE, TB)Key ResourcesL2 **Water on Earth** videoL4 **End of the Road** video**Grade 2 Module 1****Leveled Reader: What is a Map?** Chapter 2 (LR 14-19) |  |  |  |
| **DCI** | **ESS2.C: The Roles of Water in Earth’s Surface Processes*** Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB))L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL1 **Continental Divide** videoL2 **Journey of a River** videoL6 **Snow Science** text (TB)L10 **Almost There** video; **Water Patterns** interactive; **Water and Ice Patterns** interactive**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ3L1 (TE, TB)L2 (TE, TB)L3 ((TE, TB)L4 (TE, TB))Key ResourcesL2 **Water on Earth** video**EXAMPLE THREE****Grade 2 Module 1****Leveled Reader: What is a Map?** All chapters (LR 2-30) |   |  |  |
| **CCC** | **Patterns*** Patterns in the natural world can be observed. (2-ESS2-3)
 | **EXAMPLE ONE****Grade 2 Module 1****My Journey West**M1\_DQ2L2 (TE 150-157, TB 47)L3 (TE, TB))L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L9 (TE, TB)L10 (TE, TB)Key ResourcesL10 **Water Patterns** interactive; **Water and Ice Patterns** interactive**EXAMPLE TWO****Grade 2 Module 1****My Journey West**M1\_DQ3L1 (TE, TB))L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)Key ResourcesL2 **Water on Earth** video |  |  |  |

**2-PS1 Matter and Its Interactions**

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| **SEP** | **Planning and Carrying Out Investigations** Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. * Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-PS1-1)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB) |  |  |  | **2-PS1-1.****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 the similar properties that different materials share.] | **EXAMPLES****Grade 2 Module 2****Master of Materials**M2\_DQ1L1 (TE, TB)L2 (TE, TB)L4 (TE, TB)L5 ((TE, TB)Key ResourcesL1 **Master of Materials Trailer** videoL2 **Where Did That Come From?** Prior-Knowledge Read-Aloud textL3 **Building a Home** videoL4 **Properties of Materials** videoL5 **Making Steel** video; **Where Does Wool Come From?** video; **Level-Up** interactive**Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB) |  |  |  |
| **DCI** | **PS1.A: Structure and Properties of Matter*** Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. (2-PS1-1)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ1L1 (TE, TB)L2 (TE, TB)L4 (TE, TB)L5 (TE, TB)**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)**EXAMPLE THREE****Grade 2 Module 2****Leveled Reader: What is it Made Of?** All chapters (LR 2-30) |  |  |  |
| **CCC** | **Patterns*** Patterns in the natural and human designed world can be observed. (2-PS1-1)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ1L1 (TE, TB)L2 (TE, TB)L4 (TE, TB))L5 (TE, TB)**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE 52-59, TB 19-21)L2 (TE 60-67, TB 22-23)L3 (TE 68-75, TB 24-26)L4 (TE 76-83, TB 27-28) |  |  |  |

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** | **Performance Expectation** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** |
| **Y** | **N** | **Y** | **N** |
| **SEP** | **Analyzing and Interpreting Data**Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Analyze data from tests of an object or tool to determine if it works as intended. (2-PS1-2)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE, TB)L2 (TE, TB))L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ5L4 (TE 228-235, TB 88-89)L9 (TE 260-265, TB 97-98)**EXAMPLE THREE****Grade 2 Module 2****Master of Materials**M2\_DQ3L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB) |  |  |  | **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.\*** [Clarification Statement: Examples of properties could include strength, flexibility, hardness, texture, and absorbency.] [Assessment Boundary: Assessment of quantitative measurements is limited to length.] | **EXAMPLES****Grade 2 Module 2****Master of Materials**M2\_DQ2L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)Key ResourcesL5 **Choosing Suitable Materials** video**Grade 2 Module 2****Master of Materials**M2\_DQ3L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)Key ResourcesL1 **The Story of the Three Little Pigs** text (TB)L2 **Building Halley VI** videoL6 **Level-Up** interactive**Grade 2 Module 2****Master of Materials**M2\_DQ5L4 (TE, TB)L9 ((TE, TB)Key ResourcesL4 **Building Bridges** videoL9 **Level-Up** interactive; **Congratulations** video**Grade 2 Module 2****Leveled Reader: What is it Made Of?** All chapters (LR 2-30) |  |  |  |
| **DCI** | **PS1.A: Structure and Properties of Matter*** Different properties are suited to different purposes. (2-PS1-2)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ2L5 (TE, TB)Key ResourcesL5 **Choosing Suitable Materials** video**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ5L4 (TE, TB)L9 (TE, TB)Key ResourcesL4 **Building Bridges** video**EXAMPLE THREE** **Grade 2 Module 2****Leveled Reader: What is it Made Of?**All chapters (LR 2-30) |  |  |  |
| **CCC** | **Cause and Effect** * Simple tests can be designed to gather evidence to support or refute student ideas about causes. (2-PS1-2)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ5L4 (TE, TB))L9 (TE, TB)) |  |  |  |
| **CCC** | ***Connections to Engineering, Technology, and Applications of Science*****Influence of Engineering, Technology, and Science on Society and the Natural World** * Every human-made product is designed by applying some knowledge of the natural world and is built by using natural materials. (2-PS1-2)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ2L5 (TE, TB))Key ResourcesL5 **Choosing Suitable Materials** video**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ5L4 (TE, TB))Key ResourcesL4 **Building Bridges** video |  |  |  |

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** | **Performance Expectation** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** |
| **Y** | **N** | **Y** | **N** |
| **SEP** | **Constructing Explanations and Designing Solutions**Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. * Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-PS1-3)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ5L1 (TE, TB)L7 (TE, TB)) |  |  |  | **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.** [Clarification Statement: Examples of pieces could include blocks, building bricks, or other assorted small objects.] | **EXAMPLES****Grade 2 Module 2****Master of Materials**M2\_DQ5L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)L8 (TE, TB)L4 **Building Bridges** videoL9 **Level-Up** interactive; **Congratulations** video |   |  |  |
| **DCI** | **PS1.A: Structure and Properties of Matter*** Different properties are suited to different purposes. (2-PS1-3)
* A great variety of objects can be built up from a small set of pieces. (2-PS1-3)
 | **EXAMPLE ONE****Grade 2 Module 2**(TE, TB)L1 (TE, TB)L2 (TE, TB)L7 (TE, TB) |  |  |  |
| **CCC** | **Energy and Matter*** Objects may break into smaller pieces and be put together into larger pieces, or change shapes. (2-PS1-3)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ5L1 (TE, TB))L2 (TE, TB)L6 (TE, TB)L7 (TE, TB) |  |  |  |

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Engaging in Argument from Evidence*** Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).
* Construct an argument with evidence to support a claim.
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ4L4 (TE, TB)L6 (TE, TB)L7 (TE, TB)Key ResourcesL6 **Reversible and Irreversible Changes** video gallery |  |  |  | **2-PS1-4.****Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.** [Clarification Statement: Examples of reversible changes could include materials such as water and butter at different temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and heating paper.] | **EXAMPLES****Grade 2 Module 2****Master of Materials**M2\_DQ4L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)Key ResourcesL4 **Crayon Making** video; **Making Crayons** text (TB)L6 **Reversible and Irreversible Changes** video gallery**Grade 2 Module 2****Leveled Reader: What is it Made Of?** Chapter 1 (LR 2-15) |  |  |  |
|  | ***Connections to Nature of Science*****Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena*** Science searches for cause and effect relationships to explain natural events.
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ4L3 (TE, TB)L5 (TE, TB)L6 (TE, TB) |  |  |  |
| **DCI** | **PS1.B: Chemical Reactions*** Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ4L2 (TE, TB))L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)L7 (TE, TB)Key ResourcesL4 **Crayon Making** video; **Making Crayons** text (TB)L6 **Reversible and Irreversible Changes** video gallery |  |  |  |
| **CCC** | **Cause and Effect** * Events have causes that generate observable patterns. (2-PS1-4)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ4L5 (TE, TB)L6 (TE, TB)Key ResourcesL6 **Reversible and Irreversible Changes** video gallery |  |  |  |

**K–2 Engineering Design**

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Asking Questions and Defining Problems** Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.* Ask questions based on observations to find more information about the natural and/or designed world(s). (K–2-ETS1-1)
* Define a simple problem that can be solved through the development of a new or improved object or tool. (K–2-ETS1-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ2L5 (TE, TB)**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB) |  |  |   | **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.** | **EXAMPLES****Grade 2 Module 3****Save Our Island!**M3\_DQ2L5 (TE, TB)Key Resources L5 **How Can We Save Tangier Island?** text (TB)**Grade 2 Module 3****Save Our Island!**M3\_DQ3L1 (TE, TB)L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)Key ResourcesL2 **Earth Changes Media Gallery** interactive**Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE 242-250, TB 81-82)L2 (TE 252-259, TB 83-90) |  |  |  |
| **DCI** | **ETS1.A: Defining and Delimiting Engineering Problems*** A situation that people want to change or create can be approached as a problem to be solved through engineering. (K–2-ETS1-1)
* Asking questions, making observations, and gathering information are helpful in thinking about problems. (K–2-ETS1-1)
* Before beginning to design a solution, it is important to clearly understand the problem. (K–2-ETS1-1)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ2L5 (TE, TB)Key ResourcesL5 **How Can We Save Tangier Island?** text (TB)**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ3L4 (TE, TB)L5 (TE, TB)L6 (TE, TB)**EXAMPLE THREE****Grade 2 Module 4****A Garden for Life**M4\_DQ4L1 (TE, TB)L2 (TE, TB) |  |  |  |

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** | **Performance Expectation** | **Publisher Citations** | **Meets Standard** | **Reviewer Comments, Citations, and Questions** |
| **Y** | **N** | **Y** | **N** |
| **SEP** | **Developing and Using Models**Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.* Develop a simple model based on evidence to represent a proposed object or tool. (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L3 (TE, TB))L4 (TE, TB)L5 (TE, TB)**EXAMPLE TWO****Grade 2 Module 4****A Garden for Life**M4\_DQ3L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB)**EXAMPLE THREE****Grade 2 Module 2****Master of Materials**M2\_DQ3L2 (TE, TB)L3 (TE, TB))L4 (TE, TB) |  |  |  | **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.** | **EXAMPLES****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L3 (TE, TB)L4 (TE, TB)L5 (TE, TB)**Grade 2 Module 4****A Garden for Life**M4\_DQ3L7 (TE, TB)L8 (TE, TB)L9 ((TE, TB)L10 ((TE, TB)Key Resources L10 **Artificial Pollination** video**Grade 2 Module 2****Master of Materials**M2\_DQ3L2 (TE, TB)L3 (TE, TB)L4 (TE, TB) |  |  |  |
| **DCI** | **ETS1.B: Developing Possible Solutions*** Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people. (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L10 (TE, TB)Key Resources L10 **Artificial Pollination** video**EXAMPLE TWO****Grade 2 Module 3****Save Our Island**M3\_DQ4L1 (TE, TB) |  |  |  |
| **CCC** | **Structure and Function*** The shape and stability of structures of natural and designed objects are related to their function(s). (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ3L2 (TE, TB)L3 (TE, TB)L4 (TE, TB)**EXAMPLE TWO****Grade 2 Module 3****Save Our Island!**M3\_DQ4L1 (TE, TB)L3 (TE, TB)L4 ((TE, TB)L5 (TE, TB)**EXAMPLE THREE****Grade 2 Module 4****A Garden for Life**M4\_DQ3L7 (TE, TB)L8 (TE, TB)L9 (TE, TB)L10 (TE, TB) |  |  |  |

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| **Y** | **N** | **Y** | **N** |
| **SEP** | **Analyzing and Interpreting Data**Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Analyze data from tests of an object or tool to determine if it works as intended. (K–2-ETS1-3)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ3L5 (TE, TB)L6 (TE, TB)**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ5L6 (TE, TB))L8 ((TE, TB)L9 (TE, TB) |  |  |  | **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.** | **EXAMPLES****Grade 2 Module 2****Master of Materials**M2\_DQ3L5 (TE, TB)L6 (TE, TB)**Grade 2 Module 2****Master of Materials**M2\_DQ5L5 (TE, TB))L6 (TE, TB)L8 (TE, TB)L9 (TE, TB)**Grade 2 Module 2****Leveled Reader: What is it Made Of?** Chapter 2 (LR 16-21) |  |  |  |
| **DCI** | **ETS1.C: Optimizing the Design Solution*** Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K–2-ETS1-3)
 | **EXAMPLE ONE****Grade 2 Module 2****Master of Materials**M2\_DQ3L5 (TE, TB)L6 (TE, TB)**EXAMPLE TWO****Grade 2 Module 2****Master of Materials**M2\_DQ5L6 (TE, TB)L8 (TE, TB)L9 (TE, TB) |  |  |  |