Standards Map for Kindergarten Through Grade Eight
Grade 2 – Next Generation Science Standards

2-LS2 Ecosystems: Interactions, Energy, and Dynamics

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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** **EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ2 L1 (TE pp.92-97, TB pp.29-32) L2 (TE pp.98-105, TB pp.33-36) L3 (TE pp.106-111, TB pp.37-38) L4 (TE pp.112-119, TB pp.39-40) L5 (TE pp.120-125, TB pp.41-42) Key Resources L1 **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** **EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ2 L1 (TE pp.92-97, TB pp.29-32) L2 (TE pp.98-105, TB pp.33-36) L3 (TE pp.106-111, TB pp.37-38) L4 (TE pp.112-119, TB pp.39-40) L5 (TE pp.120-125, TB pp.41-42) Key Resources L1 **The Plant Problem** text (TB)

Publisher: Twig Education

Program Title: Twig Science

Components: Twig Science Teacher Editions (TE) , Twig Science Student Twig Books (TB), Leveled Readers (LR) (On-Level, Above, Below and English Learners), www.twigscience.com, www.twigsciencetools.com, www.twigsciencereporter.com

DCI	**LS2.A: Interdependent Relationships in Ecosystems** ▪ Plants depend on water and light to grow. (2-LS2-1)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ2 L1 (TE pp.92-97, TB pp.29-32) L2 (TE pp.98-105, TB pp.33-36) L3 (TE pp.106-111, TB pp.37-38) L4 (TE pp.112-119, TB pp.39-40) L5 (TE pp.120-125, TB pp.41-42)		
CCC	**Cause and Effect** ▪ Events have causes that generate observable patterns. (2-LS2-1)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ2 L1 (TE pp.92-97, TB pp.29-32) L2 (TE pp.98-105, TB pp.33-36) L4 (TE pp.112-119, TB pp.39-40)		

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L2 (TE pp.144-151, TB p.50) L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77)	**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_DQ3 L1 (TE pp.136-143, TB pp.45-49) L2 (TE pp.144-151, TB p.50) L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) Key Resources L1 **The Nutcracker** video

	on evidence to represent a proposed object or tool. (2-LS2-2)			L2 **Pollination** video L3 **Specific Pollination** video L5 **Pollen Power** text (TB) L6 **Tracking Honey Bees** video L10 **Artificial Pollination** video **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) L2 (TE pp.224-231, TB pp.83-90) L3 (TE pp.232-237, TB pp.91-92) L4 (TE pp.238-244, TB pp.93-94) **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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L1 (TE pp.136-143, TB pp.45-49) L2 (TE pp.144-151, TB p.50) L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) Key Resources L1 **The Nutcracker** video L2 **Pollination** video L3 **Specific Pollination** video L5 **Pollen Power** text (TB) L6 **Tracking Honey Bees** video L10 **Artificial Pollination** video **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) L2 (TE pp.224-231, TB pp.83-90) L3 (TE pp.232-237, TB pp.91-92) L4 (TE pp.238-244, TB pp.93-94) **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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) L11 (TE pp.204-210, TB p.78) **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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L2 (TE pp.144-151, TB p.50) L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) Key Resources L1 **The Nutcracker** video L2 **Pollination** video L3 **Specific Pollination** video L5 **Pollen Power** text (TB) L6 **Tracking Honey Bees** video		

		L10 **Artificial Pollination** video **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) **Grade 2 Module 4** **Leveled Reader: Where are the Bees?** All chapters (LR 2-30)		

2-LS4 Biological Evolution: Unity and Diversity

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ1 L2 (TE pp.16-23, TB pp.6-7) L3 (TE pp.24-31, TB pp.8-9) L4 (TE pp.32-39, TB pp.10-12) L8 (TE pp.62-69, TB pp.21-22) L9 (TE pp.70-79, TB pp.23-24) L10 (TE pp.80-86, TB pp.25-26) Key Resources L2-4 **Habitat Explorer Field Guide** interactive L2 **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_DQ1 L1 (TE pp.8-15, TB pp.3-5) L2 (TE pp.16-23, TB pp.6-7) L3 (TE pp.24-31, TB pp.8-9) L4 (TE pp.32-39, TB pp.10-12) L5 (TE pp.40-47, TB pp.13-15) L6 (TE pp.48-55, TB pp.16-18) L7 (TE pp.56-61, TB pp.19-20) L8 (TE pp.62-69, TB pp.21-22) L9 (TE pp.70-79, TB pp.23-24) L10 (TE pp.80-86, TB pp.25-26) Key Resources L1 **My Favorite Place** Prior-Knowledge Read-Aloud text L2-4 **Habitat Explorer Field Guide** interactive L2 **Desert Habitat** video L6 **Rain Forest Short** video

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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ1 L4 (TE pp.32-39, TB pp.10-12) L5 (TE pp.40-47, TB pp.13-15) L6 (TE pp.48-55, TB pp.16-18) L8 (TE pp.62-69, TB pp.21-22) L10 (TE pp.80-86, TB pp.25-26)		L8 **Schoolyard Sampling** video **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) L2 (TE pp.224-231, TB pp.83-90) L3 (TE pp.232-237, TB pp.91-92) L4 (TE pp.238-244, TB pp.93-94) **Grade 2 Module 4** **Leveled Reader: Where are the Bees?** Chapter 2 (LR 14-19) Chapter 3 (LR 24-30)
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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ1 L1 (TE pp.8-15, TB pp.3-5) L2 (TE pp.16-23, TB pp.6-7) L3 (TE pp.24-31, TB pp.8-9) L4 (TE pp.32-39, TB pp.10-12) L5 (TE pp.40-47, TB pp.13-15) L6 (TE pp.48-55, TB pp.16-18) L7 (TE pp.56-61, TB pp.19-20) L8 (TE pp.62-69, TB pp.21-22) L9 (TE pp.70-79, TB pp.23-24) L10 (TE pp.80-86, TB pp.25-26) Key Resources L1 **My Favorite Place** Prior-Knowledge Read-Aloud text		

		L2-4 **Habitat Explorer Field Guide** interactive L2 **Desert Habitat** video L6 **Rain Forest Short** video L8 **Schoolyard Sampling** video **Grade 2 Module 4** **Leveled Reader: Where are the Bees?** All chapters (LR 2-30)		

2-ESS1 Earth's Place in the Universe

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ1 L4 (TE pp.30-35, TB pp.11-12) L9 (TE pp.66-72, TB pp.27-28) L11 (TE pp.82-88, TB pp.36-38) 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_DQ1 L2 (TE pp.16-21, TB pp.7-8) L3 (TE pp.22-29, TB pp.9-10) L4 (TE pp.30-35, TB pp.11-12) L5 (TE pp.36-42, TB pp.13-14) L6 (TE pp.44-49, TB pp.15-16) L7 (TE pp.50-58, TB pp.17-22) L8 (TE pp.60-65, TB pp.23-26) L9 (TE pp.66-72, TB pp.27-28) L10 (TE pp.74-81, TB pp.29-35) L11 (TE pp.82-88, TB pp.36-38) Key Resources L1 **Land Shapes and Forms** Prior-Knowledge Read-Aloud text; **Save the Island** video L2 **Mount St. Helens** video L3 **Expanding Islands** Read-Aloud text; **Kilauea** video L5 **Erosion** visual
DCI	**ESS1.C: The History of Planet Earth**	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ1 L2 (TE pp.16-21, TB pp.7-8)		

	▪ Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)	L3 (TE pp.22-29, TB pp.9-10) L4 (TE pp.30-35, TB pp.11-12) L5 (TE pp.36-42, TB pp.13-14) L6 (TE pp.44-49, TB pp.15-16) L7 (TE pp.50-58, TB pp.17-22) L8 (TE pp.60-65, TB pp.23-26) L9 (TE pp.66-72, TB pp.27-28) L10 (TE pp.74-81, TB pp.29-35) L11 (TE pp.82-88, TB pp.36-38) Key Resources L1 **Land Shapes and Forms** Prior-Knowledge Read-Aloud text; **Save the Island** video L2 **Mount St. Helens** video L3 **Expanding Islands** Read-Aloud text; **Kilauea** video L5 **Erosion** visual L6 **Kalahari Flood** video L7 **Glaciers** video L9 **Earth Changes** media gallery; **Tangier Island** video L10 **A Day on Tangier Island** text (TB) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** All chapters (LR pp.2-30)		L6 **Kalahari Flood** video L7 **Glaciers** video L9 **Earth Changes** media gallery; **Tangier Island** video L10 **A Day on Tangier Island** text (TB) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** Chapter 1 (LR pp.2-15)

CCC	**Stability and Change** ▪ Things may change slowly or rapidly. (2-ESS1-1)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ1 L2 (TE pp.16-21, TB pp.7-8) L3 (TE pp.22-29, TB pp.9-10) L4 (TE pp.30-35, TB pp.11-12) L5 (TE pp.36-42, TB pp.13-14) L6 (TE pp.44-49, TB pp.15-16) L7 (TE pp.50-58, TB pp.17-22) L8 (TE pp.60-65, TB pp.23-26) L10 (TE pp.74-81, TB pp.29-35) L11 (TE pp.82-88, TB pp.36-38) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** All chapters (LR pp.2-30)		

2-ESS2 Earth's Systems

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L5 (TE pp.160-165, TB pp.73-74)	**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	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L2 (TE pp.140-147, TB pp.66-68) L3 (TE pp.148-153, TB pp.69-71)

	constructing evidence-based accounts of natural phenomena and designing solutions. ▪ Compare multiple solutions to a problem. (2-ESS2-1)	L6 (TE pp.166-170, TB pp.75-76) **Grade 2 Module 3** **Save Our Island!** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L2 (TE pp.186-191, TB pp.81-82) L3 (TE pp.192-197, TB p.83) L5 (TE pp.204-208, TB p.86)	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.]	L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74) L6 (TE pp.166-170, TB pp.75-76) Key Resources L2-3 **Earth Changes** media gallery **Grade 2 Module 3** **Save Our Island!** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L2 (TE pp.186-191, TB pp.81-82) L3 (TE pp.192-197, TB p.83) L5 (TE pp.204-208, TB p.86) L6 (TE pp.210-214, TB pp.87-88)
DCI	**ESS2.A: Earth Materials and Systems** ▪ Wind and water can change the shape of the land. (2-ESS2-1)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ2 L2 (TE pp.100-107, TB pp.45-46) L3 (TE pp.108-115, TB pp.47-50) L5 (TE pp.122-128, TB pp.53-60) Key Resources L2 **Wave Erosion** video L3 **Wind Erosion in China** video **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74) L6 (TE pp.166-170, TB pp.75-76) **Grade 2 Module 3** **Save Our Island!**		**Grade 2 Module 3** **Save Our Island!** M3_DQ2 L2 (TE pp.100-107, TB pp.45-46) L3 (TE pp.108-115, TB pp.47-50) L5 (TE pp.122-128, TB pp.53-60) Key Resources L2 **Wave Erosion** video L3 **Wind Erosion in China** video L5 **How Can We Save Tangier Island?** text (TB) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** Chapter 3 (LR pp.24-30)

		M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L2 (TE pp.186-191, TB pp.81-82) L3 (TE pp.192-197, TB p.83) L5 (TE pp.204-208, TB p.86) L6 (TE pp.210-214, TB pp.87-88) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** All chapters (LR pp.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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L2 (TE pp.140-147, TB pp.66-68) L3 (TE pp.148-153, TB pp.69-71) L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74) L6 (TE pp.166-170, TB pp.75-76) Key Resources L2-3 **Earth Changes** media gallery		
CCC	**Stability and Change** ▪ Things may change slowly or rapidly. (2-ESS2-1)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74)		

		L6 (TE pp.166-170, TB pp.75-76) **Grade 2 Module 3** **Save Our Island!** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L2 (TE pp.186-191, TB pp.81-82) L3 (TE pp.192-197, TB p.83) L5 (TE pp.204-208, TB p.86) L6 (TE pp.210-214, TB pp.87-88) **Grade 2 Module 3** **Leveled Reader: Incredible Erosion** All chapters (LR pp.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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L2 (TE pp.140-147, TB pp.66-68) L3 (TE pp.148-153, TB pp.69-71) L5 (TE pp.160-165, TB pp.73-74)		
CCC	***Connections to Engineering, Technology, and Applications of Science*** **Influence of Engineering, Technology, and Science on Society and the Natural World**	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L2 (TE pp.140-147, TB pp.66-68) L3 (TE pp.148-153, TB pp.69-71) L4 (TE pp.154-159, TB p.72)		

	▪ Developing and using technology has impacts on the natural world. (2-ESS2-1)			

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ1 L1 (TE pp.54-61, TB pp.17-18) L3 (TE pp.68-75, TB pp.21-24) L5 (TE pp.82-87, TB pp.26-27) L7 (TE pp.93-99, TB p.31) L9 (TE pp.106-111, TB pp.34-35) L10 (TE pp.112-117, TB p.36) **Grade 2 Module 1** **My Journey West** M1_DQ2 L1 (TE pp.132-137, TB pp.43-45) **Grade 2 Module 1** **My Journey West** M1_DQ4 L3 (TE pp.248-253, TB pp.96-98) L4 (TE pp.254-259, TB p.99) L5 (TE pp.260-266, TB pp.100-102)	**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_DQ1 L1 (TE pp.54-61, TB pp.17-18) L2 (TE pp.62-67, TB pp.19-20) L3 (TE pp.68-75, TB pp.21-24) L5 (TE pp.82-87, TB pp.26-27) L6 (TE pp.88-93, TB pp.28-30) L7 (TE pp.93-99, TB p.31) L9 (TE pp.106-111, TB pp.34-35) L10 (TE pp.112-117, TB p.36) L11 (TE pp.118-124, TB pp.37-40) Key Resources L1 **Changing Landscapes** Prior-Knowledge Read-Aloud text; **My Journey West Trailer** video L2 **Black Sunday** video L4 **On the Road** video L6 **Ways of Seeing the World** video**; Mapping Rio de Janeiro** interactive L7 **What are Maps?** Read-Aloud text L8 **Pictures from the Sky** video L10 **Arriving in New Mexico** video **Grade 2 Module 1** **My Journey West** M1_DQ4 L3 (TE pp.248-253, TB pp.96-98) L4 (TE pp.254-259, TB p.99) L5 (TE pp.260-266, TB pp.100-102)
DCI	**ESS2.B: Plate Tectonics and Large-Scale System Interactions**	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ1		

	▪ Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)	L1 (TE pp.54-61, TB pp.17-18) L2 (TE pp.62-67, TB pp.19-20) L3 (TE pp.68-75, TB pp.21-24) L5 (TE pp.82-87, TB pp.26-27) L6 (TE pp.88-93, TB pp.28-30) L7 (TE pp.93-99, TB p.31) L9 (TE pp.106-111, TB pp.34-35) L10 (TE pp.112-117, TB p.36) L11 (TE pp.118-124, TB pp.37-40) Key Resources L6 **Ways of Seeing the World** video**; Mapping Rio de Janeiro** interactive L7 **What are Maps?** Read-Aloud text **Grade 2 Module 1** **My Journey West** M1_DQ4 L3 (TE pp.248-253, TB pp.96-98) L4 (TE pp.254-259, TB p.99) L5 (TE pp.260-266, TB pp.100-102) **Grade 2 Module 1** **My Journey West** **Leveled Reader: What is a Map?** All chapters (LR pp.2-30)		**Grade 2 Module 1** **My Journey West** M1_DQ2 L1 (TE pp.132-137, TB pp.43-45) **Grade 2 Module 1** **Leveled Reader: What is a Map?** Chapter 1 (LR pp.2-13) Chapter 2 (LR pp.14-23)
CCC	**Patterns** ▪ Patterns in the natural world can be observed. (2-ESS2-2)	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ1 L2 (TE pp.62-67, TB pp.19-20) L3 (TE pp.68-75, TB pp.21-24) L5 (TE pp.82-87, TB pp.26-27) L6 (TE pp.88-93, TB pp.28-30)		

		L7 (TE pp.93-99, TB p.31) L9 (TE pp.106-111, TB pp.34-35) L10 (TE pp.112-117, TB p.36) L11 (TE pp.118-124, TB pp.37-40) **Grade 2 Module 1** **My Journey West** M1_DQ2 L1 (TE pp.132-137, TB pp.43-45) **Grade 2 Module 1** **My Journey West** M1_DQ4 L3 (TE pp.248-253, TB pp.96-98)		

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ2 L1 (TE pp.132-137, TB pp.43-45) L4 (TE pp.154-159, TB pp.49-52) L6 (TE pp.166-173, TB pp.55-61) L9 (TE pp.188-193, TB pp.66-67) L10 (TTE pp.194-200, TB pp.68-70) Key Resources L10 **Water Patterns** interactive; **Water and Ice Patterns** interactive	**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_DQ2 L1 (TE pp.132-137, TB pp.43-45) L2 (TE pp.138-145, TB p.46) L3 (TE pp.146-153, TB pp.47-48) L4 (TE pp.154-159, TB pp.49-52) L5 (TE pp.160-165, TB pp.53-54) L6 (TE pp.166-173, TB pp.55-61) L9 (TE pp.188-193, TB pp.66-67) L10 (TE pp.194-200, TB pp.68-70) Key Resources L1 **Continental Divide** video L2 **Journey of a River** video L6 **Snow Science** text (TB)

		Grade 2 Module 1 **My Journey West** M1_DQ3 L2 (TE pp.212-217, TB pp.75-76) L3 (TE pp.218-225, TB pp.77-86) L4 (TE pp.226-230, TB pp.87-88) Key Resources L2 **Water on Earth** video **Grade 2 Module 1** **Leveled Reader: What is a Map?** All chapters (LR pp.2-30)		L10 **Almost There** video; **Water Patterns** interactive; **Water and Ice Patterns** interactive **Grade 2 Module 1** **My Journey West** M1_DQ3 L1 (TE pp.206-211, TB pp.73-74) L2 (TE pp.212-217, TB pp.75-76) L3 (TE pp.218-225, TB pp.77-86) L4 (TE pp.226-230, TB pp.87-88) Key Resources L2 **Water on Earth** video L4 **End of the Road** video **Grade 2 Module 1** **Leveled Reader: What is a Map?** Chapter 2 (LR pp.14-23)
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)	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ2 L1 (TE pp.132-137, TB pp.43-45) L2 (TE pp.138-145, TB p.46) L3 (TE pp.146-153, TB pp.47-48) L4 (TE pp.154-159, TB pp.49-52) L5 (TE pp.160-165, TB pp.53-54) L6 (TE pp.166-173, TB pp.55-61) L7 (TE pp.174-179, TB pp.62-63) L9 (TE pp.188-193, TB pp.66-67) L10 (TE pp.194-200, TB pp.68-70) Key Resources L1 **Continental Divide** video		

		L2 **Journey of a River** video L6 **Snow Science** text (TB) L10 **Almost There** video; **Water Patterns** interactive; **Water and Ice Patterns** interactive **Grade 2 Module 1** **My Journey West** M1_DQ3 L1 (TE pp.206-211, TB pp.73-74) L2 (TE pp.212-217, TB pp.75-76) L3 (TE pp.218-225, TB pp.77-86) L4 (TE pp.226-230, TB pp.87-88) Key Resources L2 **Water on Earth** video **Grade 2 Module 1** **Leveled Reader: What is a Map?** All chapters (LR pp.2-30)		
CCC	**Patterns** ▪ Patterns in the natural world can be observed. (2-ESS2-3)	**EXAMPLES** **Grade 2 Module 1** **My Journey West** M1_DQ2 L2 (TE pp.138-145, TB p.46) L3 (TE pp.146-153, TB pp.47-48) L4 (TE pp.154-159, TB pp.49-52) L5 (TE pp.160-165, TB pp.53-54) L6 (TE pp.166-173, TB pp.55-61) L9 (TE pp.188-193, TB pp.66-67)		

		L10 (TE pp.194-200, TB pp.68-70) Key Resources L10 **Water Patterns** interactive; **Water and Ice Patterns** interactive **Grade 2 Module 1** **My Journey West** M1_DQ3 L1 (TE pp.206-211, TB pp.73-74) L2 (TE pp.212-217, TB pp.75-76) L3 (TE pp.218-225, TB pp.77-86) L4 (TE pp.226-230, TB pp.87-88) Key Resources L2 **Water on Earth** video		

2-PS1 Matter and Its Interactions

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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.	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28)	**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	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ1 L1 (TE pp.6-11, TB pp.3-4) L2 (TE pp.12-19, TB pp.5-6) L4 (TE pp.26-31, TB pp.10-11) L5 (TE pp.32-38, TB pp.12-16) Key Resources L1 **Master of Materials Trailer** video L2 **Where Did That Come From?** Prior-Knowledge Read-Aloud text

	▪ Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-PS1-1)		include the similar properties that different materials share.]	L3 **Building a Home** video L4 **Properties of Materials** video L5 **Making Steel** video; **Where Does Wool Come From?** video; **Level-Up** interactive **Grade 2 Module 2** **Master of Materials** M2_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28)
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ1 L1 (TE pp.6-11, TB pp.3-4) L2 (TE pp.12-19, TB pp.5-6) L4 (TE pp.26-31, TB pp.10-11) L5 (TE pp.32-38, TB pp.12-16) **Grade 2 Module 2** **Master of Materials** M2_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28) **Grade 2 Module 2** **Leveled Reader: What is it Made Of?** All chapters (LR pp.2-30)		
CCC	**Patterns** ▪ Patterns in the natural and human designed world can be observed. (2-PS1-1)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ1 L1 (TE pp.6-11, TB pp.3-4) L2 (TE pp.12-19, TB pp.5-6)		

		L4 (TE pp.26-31, TB pp.10-11) L5 (TE pp.32-38, TB pp.12-16) **Grade 2 Module 2** **Master of Materials** M2_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28)		

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28) L5 (TE pp.72-78, TB pp.29-30) **Grade 2 Module 2** **Master of Materials** M2_DQ5 L4 (TE pp.192-197, TB pp.88-91)	**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_DQ2 L1 (TE pp.44-49, TB pp.19-21) L2 (TE pp.50-55, TB pp.22-23) L3 (TE pp.56-62, TB pp.24-26) L4 (TE pp.64-70, TB pp.27-28) L5 (TE pp.72-78, TB pp.29-30) Key Resources L5 **Choosing Suitable Materials** video **Grade 2 Module 2** **Master of Materials** M2_DQ3 L1 (TE pp.86-91, TB pp.33-37) L2 (TE pp.92-97, TB pp.38-40) L3 (TE pp.98-103, TB pp.41-43) L4 (TE pp.104-109, TB pp.44-46)

		L9 (TE pp.216-220, TB pp.99-100)		L5 (TE pp.110-115, TB pp.47-49) L6 (TE pp.116-120, TB pp.50-52) Key Resources L1 **The Story of the Three Little Pigs** text (TB) L2 **Building Halley VI** video L6 **Level-Up** interactive **Grade 2 Module 2** **Master of Materials** M2_DQ5 L4 (TE pp.192-197, TB pp.88-91) L9 (TE pp.216-220, TB pp.99-100) Key Resources L4 **Building Bridges** video L9 **Level-Up** interactive; **Congratulations** video **Grade 2 Module 2** **Leveled Reader: What is it Made Of?** All chapters (LR pp.2-30)
DCI	**PS1.A: Structure and Properties of Matter** ▪ Different properties are suited to different purposes. (2-PS1-2)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ3 L1 (TE pp.86-91, TB pp.33-37) L2 (TE pp.92-97, TB pp.38-40) L3 (TE pp.98-103, TB pp.41-43) L4 (TE pp.104-109, TB pp.44-46) L5 (TE pp.110-115, TB pp.47-49) L6 (TE pp.116-120, TB pp.50-52) **Grade 2 Module 2** **Master of Materials** M2_DQ2 L5 (TE pp.72-78, TB pp.29-30) Key Resources L5 **Choosing Suitable Materials** video **Grade 2 Module 2** **Master of Materials** M2_DQ5 L4 (TE pp.192-197, TB pp.88-91) L9 (TE pp.216-220, TB pp.99-100) Key Resources L4 **Building Bridges** video		

		Grade 2 Module 2 **Leveled Reader: What is it Made Of?** All chapters (LR pp.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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ5 L6 (TE pp.116-120, TB pp.50-52) L8 (TE pp.212-215, TB pp.97-98)		
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ2 L5 (TE pp.72-78, TB pp.29-30) Key Resources L5 **Choosing Suitable Materials** video **Grade 2 Module 2** **Master of Materials** M2_DQ5 L4 (TE pp.192-197, TB pp.88-91) Key Resources L4 **Building Bridges** video		

Publisher: Twig Education

Program Title: Twig Science

Components: Twig Science Teacher Editions (TE) , Twig Science Student Twig Books (TB), Leveled Readers (LR) (On-Level, Above, Below and English Learners), www.twigscience.com, www.twigsciencetools.com, www.twigsciencereporter.com

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ5 L1 (TE pp.176-181, TB pp.79-83) L7 (TE pp.206-210, TB pp.95-96)	**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_DQ5 L1 (TE pp.176-181, TB pp.79-83) L2 (TE pp.182-186, TB pp.84-86) L3 (TE pp.188-191, TB p.87) L4 (TE pp.192-197, TB pp.88-91) L5 (TE pp.198-201, TB pp.92-93) L6 (TE pp.202-205, TB p.94) L7 (TE pp.206-210, TB pp.95-96) L8 (TE pp.212-215, TB pp.97-98) L9 (TE pp.216-220, TB pp.99-100) Key Resource L3 **Professor of Properties** video L4 **Building Bridges** video L9 **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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ5 L1 (TE pp.176-181, TB pp.79-83) L2 (TE pp.182-186, TB pp.84-86) L7 (TE pp.206-210, TB pp.95-96)		
CCC	**Energy and Matter** ▪ Objects may break into smaller pieces and be put together into larger pieces, or change shapes. (2-PS1-3)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ5 L1 (TE pp.176-181, TB pp.79-83)		

		L2 (TE pp.182-186, TB pp.84-86) L7 (TE pp.206-210, TB pp.95-96)		

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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.	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ4 L4 (TE pp.146-151, TB pp.63-65) L6 (TE pp.158-163, TB pp.71-74) L7 (TE pp.164-168, TB pp.75-76) Key Resources L6 **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_DQ4 L2 (TE pp.134-139, TB pp.57-58) L3 (TE pp.140-145, TB pp.59-62) L4 (TE pp.146-151, TB pp.63-65) L5 (TE pp.152-157, TB pp.66-70) L6 (TE pp.158-163, TB pp.71-74) L7 (TE pp.164-168, TB pp.75-76) Key Resources L4 **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 pp.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.	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ4 L3 (TE pp.140-145, TB pp.59-62) L5 (TE pp.152-157, TB pp.66-70) L6 (TE pp.158-163, TB pp.71-74)		
DCI	**PS1.B: Chemical Reactions** ▪ Heating or cooling a substance may cause changes that can be	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ4		

	observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)	L2 (TE pp.134-139, TB pp.57-58) L3 (TE pp.140-145, TB pp.59-62) L4 (TE pp.146-151, TB pp.63-65) L5 (TE pp.152-157, TB pp.66-70) L6 (TE pp.158-163, TB pp.71-74) L7 (TE pp.164-168, TB pp.75-76) Key Resources L4 **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)	**EXAMPLES** **Grade 2 Module 2 Master of Materials** M2_DQ4 L5 (TE pp.152-157, TB pp.66-70) L6 (TE pp.158-163, TB pp.71-74) Key Resources L6 **Reversible and Irreversible Changes** video gallery		

K–2 Engineering Design

Publisher: Twig Education

Program Title: Twig Science

Components: Twig Science Teacher Editions (TE) , Twig Science Student Twig Books (TB), Leveled Readers (LR) (On-Level, Above, Below and English Learners), www.twigscience.com, www.twigsciencetools.com, www.twigsciencereporter.com

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ2 L5 (TE pp.122-128, TB pp.53-60) **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74) L6 (TE pp.166-170, TB pp.75-76)	**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_DQ2 L5 (TE pp.122-128, TB pp.53-60) Key Resources L5 **How Can We Save Tangier Island?** text (TB) **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L1 (TE pp.134-139, TB pp.63-65) L2 (TE pp.140-147, TB pp.66-68) L3 (TE pp.148-153, TB pp.69-71) L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74) L6 (TE pp.166-170, TB pp.75-76) Key Resources L2 **Earth Changes Media Gallery** interactive **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) L2 (TE pp.224-231, TB pp.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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ2 L5 (TE pp.122-128, TB pp.53-60) Key Resources L5 **How Can We Save Tangier Island?** text (TB) **Grade 2 Module 3** **Save Our Island!** M3_DQ3 L4 (TE pp.154-159, TB p.72) L5 (TE pp.160-165, TB pp.73-74)		

	▪ Before beginning to design a solution, it is important to clearly understand the problem. (K–2-ETS1-1)	L6 (TE pp.166-170, TB pp.75-76) **Grade 2 Module 4** **A Garden for Life** M4_DQ4 L1 (TE pp.216-223, TB pp.81-82) L2 (TE pp.224-231, TB pp.83-90)		

Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts		Publisher Citations	Performance Expectation	Publisher Citations
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)	**EXAMPLES** **Grade 2 Module 3** **Save Our Island!** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L3 (TE pp.192-197, TB p.83) L4 (TE pp.198-203, TB pp.84-85) L5 (TE pp.204-208, TB p.86) **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) **Grade 2 Module 2** **Master of Materials** M2_DQ3	**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_DQ4 L1 (TE pp.178-184, TB pp.79-80) L3 (TE pp.192-197, TB p.83) L4 (TE pp.198-203, TB pp.84-85) L5 (TE pp.204-208, TB p.86) **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77) Key Resources L10 **Artificial Pollination** video **Grade 2 Module 2** **Master of Materials** M2_DQ3 L2 (TE pp.92-97, TB pp.38-40) L3 (TE pp.98-103, TB pp.41-43)

		L2 (TE pp.92-97, TB pp.38-40) L3 (TE pp.98-103, TB pp.41-43) L4 (TE pp.104-109, TB pp.44-46)		L4 (TE pp.104-109, TB pp.44-46)
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)	**EXAMPLES** **Grade 2 Module 4** **A Garden for Life** M4_DQ3 L10 (TE pp.198-203, TB pp.76-77) Key Resources L10 **Artificial Pollination** video **Grade 2 Module 3** **Save Our Island** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80)		
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ3 L2 (TE pp.92-97, TB pp.38-40) L3 (TE pp.98-103, TB pp.41-43) L4 (TE pp.104-109, TB pp.44-46) **Grade 2 Module 3** **Save Our Island!** M3_DQ4 L1 (TE pp.178-184, TB pp.79-80) L3 (TE pp.192-197, TB p.83) L4 (TE pp.198-203, TB pp.84-85) L5 (TE pp.204-208, TB p.86)		

Publisher: Twig Education

Program Title: Twig Science

Components: Twig Science Teacher Editions (TE) , Twig Science Student Twig Books (TB), Leveled Readers (LR) (On-Level, Above, Below and English Learners), www.twigscience.com, www.twigsciencetools.com, www.twigsciencereporter.com

		Grade 2 Module 4 **A Garden for Life** M4_DQ3 L7 (TE pp.178-185, TB pp.69-71) L8 (TE pp.186-191, TB p.72) L9 (TE pp.192-196, TB pp.73-75) L10 (TE pp.198-203, TB pp.76-77)		

Science and Engineering Practices **Disciplinary Core Ideas** **Crosscutting Concepts**		**Publisher Citations**	**Performance Expectation**	**Publisher Citations**
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)	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ3 L5 (TE pp.110-115, TB pp.47-49) L6 (TE pp.116-120, TB pp.50-52) **Grade 2 Module 2** **Master of Materials** M2_DQ5 L6 (TE pp.202-205, TB p.94) L8 (TE pp.212-215, TB pp.97-98) L9 (TE pp.216-220, TB pp.99-100)	**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_DQ3 L5 (TE pp.110-115, TB pp.47-49) L6 (TE pp.116-120, TB pp.50-52) **Grade 2 Module 2** **Master of Materials** M2_DQ5 L5 (TE pp.198-201, TB pp.92-93) L6 (TE pp.202-205, TB p.94) L8 (TE pp.212-215, TB pp.97-98) L9 (TE pp.216-220, TB pp.99-100) **Grade 2 Module 2** **Leveled Reader: What is it Made Of?** Chapter 2 (LR pp.16-23)
DCI	**ETS1.C: Optimizing the Design Solution**	**EXAMPLES** **Grade 2 Module 2** **Master of Materials** M2_DQ3		

	▪ Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K–2-ETS1-3)	L5 (TE pp.110-115, TB pp.47-49) L6 (TE pp.116-120, TB pp.50-52) **Grade 2 Module 2 Master of Materials** M2_DQ5 L6 (TE pp.202-205, TB p.94) L8 (TE pp.212-215, TB pp.97-98) L9 (TE pp.216-220, TB pp.99-100)		