Grade 2

Unit 4: Earth's Surface

New Jersey Student Learning Standards

Established 2016-2017
Revised 2018-2019
Revised 2019-2020
Revised 2020-2021
Revised 2022-2023

Trimester	Unit Title	Recommended Instructional Days
3	Earth's Surface	15-25 Days

NJSLS - Science: *TItle*	NJSLS - Science: *Performance Expectations*	
Earth's Systems	**2-ESSE-2** Develop a model to represent the shapes and kinds of land and bodies of water in an area. **2-ESS2-3** Obtain information to identify where water is found on Earth and that it can be solid or liquid. **SEP** Obtaining, Evaluating, and Communicating Information **SEP** Developing and Using Models **DCI ESS2.B** Plate Tectonics and Large-Scale System Interactions **DCI Ess2.C** The Roles of Water in Earth's Surface Processes **CCC** Patterns	**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-S within Unit**
FOUNDATION Disciplinary: ***Core Idea***	**FOUNDATION Disciplinary:** ***Statement***	
ESS2.A: Earth Materials and Systems **ESS2.B:** Plate Tectonics and LargeScale System Interactions	Wind and water can change the shape of the land. (2-ESS2-1) Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2) Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)	**Essential Question/s:** ● Where is water found on Earth? ● How can we map land and water? **Activity Description:** Unit Phenomenon - ● Unit Project Explore Ocean Water Why does an ocean not freeze completely? ● Investigate and find out ● Lesson 1 Hands-On Activity: Locate Bodies of Water

ESS2.C: The Roles of Water in Earth's Surface Processes **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)	• Lesson 2 Hands-On Activity: Engineer it- Make a Map *Collaboration opportunities in this unit: Build on Prior Knowledge (pp.187, 203), Cultivating New Questions (pp. 199, 213), Small Groups (p. 207), Jigsaw (p. 190) **Materials and Equipment**: HMH Equipment Kits, Online Simulations, Leveled Readers, Workbook,Online Simulations, Evidence Notebook, Equipment Kits, Leveled Readers **Interdisciplinary Connections: Content: NJSLS** **Connections to Math:** MP.2: Reason abstractly and quantitatively; MP.4: Model with mathematics; 2.NBT.A.4 Compare two three-digit numbers based on the meanings of the hundreds, tens, and ones digits, using >,= and < symbols to record the results of comparisons. 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. 2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. **Connections to Language Arts**:
FOUNDATION **Science and Engineering Practices:** ***Core Idea***	**FOUNDATION** **Science and Engineering Practices:** ***Statement***	
Developing and Using Models Constructing explanations and designing solutions	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) 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) 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	

Obtaining, Evaluating, and Communicating Information	that will be useful in answering a scientific question. (2- ESS2-3)	• RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. (2-ESS2-1) • RI.2.9 Compare and contrast the most important points presented by two texts on the same topic. (2-ESS2-1) • W.2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (2-ESS2-3) • W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (2-ESS2-3) • SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (2-ESS2-2)
FOUNDATION **Crosscutting Concepts:** ***Core Idea***	**FOUNDATION** **Crosscutting Concepts:** ***Statement***	
Patterns Stability and Change *Connections to Engineering, Technology, and Applications of Science* Influence of Engineering, Technology, and Science on Society and the Natural World *Connections to Nature of Science* Science Addresses Questions About the Natural and Material World	Patterns in the natural world can be observed. (2-ESS2-2), (2-ESS2-3) Things may change slowly or rapidly. (2-ESS2-1) Developing and using technology has impacts on the natural world. (2-ESS2-1) Scientists study the natural and material world. (2-ESS2-1)	
Social and Emotional Learning: ***Competencies***	**Social and Emotional Learning:** ***Sub-Competencies***	
• Responsible Decision-Making • Relationship Skills	• Develop, implement, and model effective problem-solving and critical thinking skills	

• Self-Management • Social Awareness • Self Awareness	• Utilize positive communication and social skills to interact effectively with others • Recognize the skills needed to establish and and achieve personal and educational goals • Demonstrate an understanding of the need for mutual respect when viewpoints differ. • Demonstrate an awareness of the expectations for social interactions in a variety of settings	

Assessments (Formative) ***To show evidence of meeting the standard/s, students will successfully engage within:***	**Assessments (Summative)** ***To show evidence of meeting the standard/s, students will successfully complete:***
Formative Assessments: • Interactive Worktext • Apply What You Know • Lesson Check • Self Check	**Benchmarks:** • Performance-Based Assessment (End of Module Test/ End of Year Test) • District Assessments • Performance Assessment • Unit Project • You Solve It (Digital Only) **Summative Assessments:** • Interactive Worktext, Performance Task pp 216-217 • Interactive Worktext Unit 4 Review pp 218-220

Differentiated Student Access to Content:
Teaching and Learning *Resources/Materials*

Core Resources	**Alternate Core Resources** ***IEP/504/At-Risk/ESL***	**ELL Core Resources**	**Gifted & Talented Core Resources**
• Workbook • Leveled Readers • Hands-on Activities • Interactive Worktext	• Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional	• Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental	• Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and

	examples, modeling, etc.), modify test content and/or format, allow students to retake ● Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics, repeat instructions as needed.	materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	connect students to related talent development opportunities.

Supplemental Resources

Technology:
- HMH Co. Interactive Site
- You Solve It Simulations

Other:

Career Education: Mapmakers

Differentiated Student Access to Content:
Recommended *Strategies & Techniques*

Core Resources	Alternate Core Resources *IEP/504/At-Risk/ESL*	ELL Core Resources	Gifted & Talented Core
● Large group instruction ● Small group instruction ● Think Pair Share ● Cooperative group work ● Multimedia presentations	● utilize a multi-sensory (VAKT) approach during instruction ● provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.)	● extend time requirements ● preferred seating ● positive reinforcement ● check often for understanding/review ● oral/visual directions/prompts when necessary	● Create an enhanced set of introductory activities ● integrate active teaching/learning opportunities ● incorporate authentic components ● propose interest-based extension activities

• K-W-L • Manipulatives • Leveled Readers **MTSS:** • Model how to identify vocabulary terms within text. • Discuss how to locate definition within the text, noting that some definitions will need to be inferred based on images as well as text.	• modify test content and/or format • allow students to retake tests for additional credit • provide additional times and preferential seating as needed • review, restate and repeat directions • provide study guides • break assignments into segments of shorter tasks.	• supplemental materials including use of online bilingual dictionary • modified assessment and/or rubric.	• connect students to related talent development opportunities. • Extended research project: Students can research a local body of water. They can share their findings by drawing a map of that body of water.

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**Disciplinary Concept:Career Awareness & Planning, Creativity & Innovation, Critical Thinking & Problem Solving, Technology Literacy**	
	Core Ideas:	• Different types of jobs require different knowledge and skills. • Brainstorming can create new, innovative ideas. • Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem. • Collaboration can simplify the work an individual has to do and sometimes produce a better product.
	Performance Expectation/s:	• 9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job • 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). • 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a). • 9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2). • 9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

		● 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). ● 9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).
	Career Readiness, Life Literacies & Key Skill Practices	
	● Demonstrate creativity and innovation. ● Utilize critical thinking to make sense of problems and persevere in solving them. ● Use technology to enhance productivity, increase collaboration and communicate effectively. ● Work productively in teams while using cultural/global competence.	

New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)									
	Amistad Law: *N.J.S.A. 18A 52:16A-88*		Holocaust Law: *N.J.S.A. 18A:35-28*		LGBT and Disabilities Law: *N.J.S.A. 18A:35-4.35*		Diversity & Inclusion: *N.J.S.A. 18A:35-4.36a*	x	Standards in Action: *Climate Change*