2nd Grade Unit 3 - The Earth's Land and Water

Content Area: **Science**
Course(s): **Science Grade 2**
Time Period: **MP3**
Length: **22 days**
Status: **Published**

NJSLS - Science

SCI.2-ESS2-2	Develop a model to represent the shapes and kinds of land and bodies of water in an area.
SCI.2-ESS2-3	Obtain information to identify where water is found on Earth and that it can be solid or liquid.

Science and Engineering Practices

Developing and Using Models

Develop a model to represent patterns in the natural world. (2-ESS2-2)

Obtaining, Evaluating, and Communicating 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)

Disciplinary Core Ideas

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)

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)

Crosscutting Concepts

Patterns

Patterns in the natural world can be observed. (2-ESS2-2, 2-ESS2-3)

Rationale and Transfer Goals

Where do we find water?

In this unit of study, students use information and models to identify and represent the shapes and kinds of land and bodies of water in an area and where water is found on Earth. The crosscutting concept of patterns is called out as an organizing concept for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in developing and using models and obtaining, evaluating, and communicating information. Students are also expected to use these practices to demonstrate an understanding of the core ideas.

Enduring Understandings

Maps show where things are located.

Essential Questions

How can we identify where water is found on Earth and if it is solid or liquid?

In what ways can you represent the shapes and kinds of land and bodies of water in an area?

Content - What will students know?

- Patterns in the natural world can be observed.
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form.

- Maps show where things are located. One can map the shapes and kinds of land and water in any area.
- Patterns among bodies of water and types of landforms
- Shapes and kinds of land; found in an area

Skills - What will students be able to do?

- Observe patterns in the natural world.
- 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.
- Obtain information to identify where water is found on Earth and to communicate that it can be a solid or liquid.
- Develop a model to represent patterns in the natural world.
- Develop a model to represent the shapes and kinds of land and bodies of water in an area. (Assessment does not include quantitative scaling in models.)

Activities - How will we teach the content and skills?

- Mystery Science Work of Water Anchor Phenomenon
- Mystery Science Work of Water Lesson 1
- Mystery Science Work of Water Lesson 2
- Whole group instruction and discussion.
- Read Alouds
- Group and Individual Projects
- Hands-on discovery when possible; creating models
- Webquests/Internet “field trips”

Formative Assessments

- Mystery Science Work of Water Lesson 1 Assessment

- Mystery Science Work of Water Lesson 2 Assessment
- Teacher Observation
- Student projects/models
- Exit Tickets

Summative Assessments

- Tests/Quizzes
- Grade 2 Science Benchmark #3 (give after Unit 4)

Spiraling for Mastery

Content or Skill for this Unit	Spiral Focus from Previous Unit	Instructional Activity
N/A	Kindergarten: A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions.	K-PS2-1 Activities

Career Readiness, Life Literacies, & Key Skills

PFL.9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
PFL.9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
WRK.9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
TECH.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).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.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).
TECH.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).
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.IML.3	Use a variety of sources including multimedia sources to find information about topics such as climate change, with guidance and support from adults (e.g., 6.3.2.GeoGI.2,

6.1.2.HistorySE.3, W.2.6, 1-LSI-2).

Interdisciplinary Connections

NJSLS ELA

W.SE.2.6. Prioritize information provided by different sources on the same topic while gathering ideas and planning to write about a topic. (2-ESS2-3)

SL.UM.2.5. Use multimedia; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (2-ESS2-2)

NJSLS Mathematics

MP.2 Reason abstractly and quantitatively. (2-ESS2-2)

MP.4 Model with mathematics. (2-ESS2-2)

2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. (2-ESS2-2)