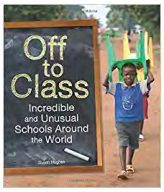
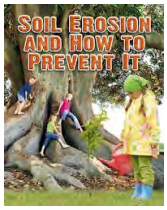
Unit 2: The Forces of Wind and Water

WEEK 8 At a Glance

Weekly Question:
How do scientists share their ideas?

Texts





Vocabulary and Language
Days 1 - 4: Review selected Weekly Words
Day 5: Answering the Weekly Question

Text Talk
Day 1: End of Unit Assessment
Day 2: *Off to Class*: "Water, Water, Everywhere"
Day 3: Could It Work Here, Too?
Day 4: *Soil Erosion and How To Prevent It*
Day 5: Synthesis of Unit Ideas and Celebrating Our Learning (combined with Studios)

Stations
Guided Independent Reading

Listening & Speaking: Listen & Respond (*Erosion: Changing Earth's Surface*)
Science Literacy: What is the most effective way of slowing or preventing erosion? How did you figure that out?
Vocabulary: Choose 3!, Talk About It
Word Work: select from activities
Writing: End of Unit Assessment

Science and Engineering
Lessons 1 & 2: Communicating a Recommendation for Thompson Island

Studios
Children interview each other to learn about each other's work, clarify their own ideas, and plan next steps. They work toward completion and presentation of their projects.

Writing: Explanation
Day 1: Introduction to and Beginning Revising and Publishing
Day 2: Revising and Publishing
Day 3: Publishing
Day 4: Post-Assessment
Day 5: Presentation and Celebration

WEEK 8 Days 1 - 4

Vocabulary & Language

Weekly Words

Weekly Question	How do schools contribute to strong communities?
Language Objectives	I can talk with my classmates about words. (SL.1.2) I can define and use new words. (L.5) I can connect words to my own real-life experiences. (L.5.2.a)
Vocabulary	Choose words from previous weeks. Review notes about children's vocabulary development and use. Choose words that children will particularly benefit from review. These may include words children struggle to use appropriately, words that can be used across contexts, and words that are particularly relevant to children's understanding of the Unit's Big Ideas.
Materials and Preparation	There are no Language lessons this week. Choose three or four words to review each day. See guidance below, Reviewing the words. ● selected Weekly Words cards ● chart paper Create a chart by writing out the selected words and their definitions.
Opening Day 1	*This week we will review some familiar words. These are especially important for us to understand as we think about how water and wind impact land and what people can do about it. Today's words are: _____, _____, _____, and _____.*
Days 2-4	*Let's continue reviewing words. Today's words are: _____, _____, _____, and _____.*
Reviewing the words	Rather than strictly following the Weekly Words routine, engage children in active discussion and application of each word in some of the following ways, according to what is most fruitful for the group.

	Say the word and show the card. Give an example of when it has been used. Ask children where they have heard the word or in what context they have used it. Ask them what they understand about its meaning based on context. Ask children to use the word in a sentence related to a different context. Invite children to act out the word with gestures or whole-body motion. Break the word into parts and discuss the meaning of each part. List synonyms and antonyms. Offer a prompt for children to discuss with a partner.
Closing	*This is our last week with our study, The Forces of Wind and Water. These words all help us talk about this topic in precise and meaningful ways. We can also use these words to discuss other topics!*
Standards	**SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **L.5** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings sufficient for reading, writing, speaking, and listening. **L.5.2.a** Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
Ongoing assessment	Use information gathered from each lesson to plan for embedded opportunities for teaching and reinforcing words. How broadly do children understand word meanings; do they use words across different contexts? How do diverse modes of interacting with words bring them alive for particular children? What misconceptions remain about specific words? How do children integrate learning from phonics lessons and other developing morphological knowledge? Keep a list to follow each child's vocabulary growth over time.

WEEK 8 Day 5

Vocabulary & Language

Answering a Weekly Question

Weekly Questions	Week 7: How can people prevent or slow erosion? Week 8: How do scientists share their ideas?
Language Objective	I can use new words to discuss a particular question with my classmates. (SL.1.2, L.6.2.a)
Vocabulary: **Week 7**	**evaluate**: to judge the value of **intervene**: to become involved in something to change what happens **propose**: to put forward an idea for others to consider **protect**: to keep safe from harm **recommend** (v): to suggest, to present as a good idea **recommendation** (n): suggestion **respond**: to do something as a reaction to something else **restore**: to return something to the way it used to be
Week 8	*Words selected from previous weeks and used in Days 1-4*
Materials and Preparation	• Week 8 Answering the Weekly Question sheets Add 8 words selected for review this week. Copy one sheet for each small group. • pencils, one or two for each small group • Weekly Questions for Weeks 7 and 8, printed or projected • Weekly Words cards for Week 7 and those selected for review in Week 8 • chart paper and markers (2 different colors) Strategically assign children to groups of four.
Opening	*This week we will use the Answer a Weekly Question routine. After you work in small groups, we'll save a few minutes to share one of your sentences with the whole class.*

Key Activity	Distribute sheets and send children to work. Circulate to help children strategize through the routine, encourage equitable participation, observe interpersonal dynamics, and glean understanding about children's word use. While children work, select one group to present their response to the class. Have the group identify one or two members who will read the response aloud. After about 7 minutes, signal for children to finish their answers and return to the whole group. Invite the reader(s) from the selected group to present their response by first reading the Weekly Question they chose and then their response. *Please read your response slowly so I can write it down.* Write the response on the chart paper. *Let's see which Weekly Words they used! I'll read it again, and you can let me know when you hear a Weekly Word.* Read the response aloud, slowly, and pause as children identify Weekly Words. Circle those words with the contrasting marker. Invite children from other groups to signal if they also used any of the same words. Highlight the meaning of the word as different groups used it, noting its similarities and/or differences in context and usage.
Closing	*You have really packed words into your answers to the Weekly Questions!*
Standards	**SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **L.6.2.a** Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy, that makes me happy).
Ongoing assessment	Listen to children's conversations as they work. How accurately do children use words in context? What contributions do they make to the construction of a response to a specific question? Observe children's interactions in small groups. How effectively do children work in their groups? What roles do they take on?

	Reflect on the whole group sharing of one group's response. What more was revealed about children's understanding and application of words? Review each sheet. Use children's answers to inform planning for successive lessons, reteaching words, and informal conversations with individual children. Reflect on the routine. What worked well? What will need to be reinforced in the Week 4 lesson to make it run more smoothly?

Notes

Date: _____

Names: _____

Check the question you answer. Circle the words you use. Write your response.

___ How can people prevent or slow erosion?

___ How do scientists share their ideas?

evaluate	recommend		
intervene	recommendation		
propose	respond		
protect	restore		

WEEK 8 Day 1

Text Talk
End of Unit Assessment

Big Ideas	Wind and water can change the shape of the land. The changing shape of the land impacts people.
Weekly Question	How do scientists share their ideas?
Content Objectives	I can use key details and my growing knowledge about how people interact with the effects of erosion to understand a new informational text. I can demonstrate my understanding of an informational text about erosion by answering questions about the vocabulary, details, and structure of the text.
Materials and Preparation	Children who do not finish the assessment during this session may continue working at the Writing Station. ● End of Unit Assessment text, copy for each child ● End of Unit Assessment questions, copy for each child ● End of Unit Assessment slides ● POP! Answering Multiple Choice Questions chart and/or half-sheets ● writing tools ● End of Unit Assessment Rubric, one copy to complete for each child ● End of Unit Assessment Responses and Exemplars ● chart paper and markers Prepare the Weekly Question Chart with the question, How do scientists share their ideas?
Opening 1 minute	*We are almost at the end of our second study, The Forces of Wind and Water! I want to find out more about what you have been learning. Today we'll use our Text Talk time for an assessment. You will use a new informational text to think about some of the big ideas of our study about the impacts of wind and water on land.*
End of Unit Assessment	*Each of you will work on your own paper to read, answer questions, and record evidence from the text.*

37 minutes	*This assessment looks pretty long. Let's read through it together.* Read through the assessment. Show the excerpt slides to remind children to look at the photographs and read the captions. Remind children to use the POP! guidance for multiple-choice questions, and answer children's clarifying questions. Distribute the sheets, and send children to work independently. Leave the slides visible as children work. As needed, provide technology so children can access the audio on the slides as they work. Children who do not finish the assessment in this session may continue working at the Writing Station this week.
Weekly Question Chart 2 minutes	Bring the group back together to introduce the Weekly Question Chart. *Throughout this week, we will be asking and answering the question: How do scientists share their ideas? Do you have any initial thoughts about this?* *We'll add more to our chart during the week.*
Standards Addressed	**R.5.2.a** Retell texts, including details about who, what, when, where, how, and why; demonstrate understanding of the theme. **R.5.2.b** Identify the main topic of a multi-paragraph text and the central ideas of specific paragraphs. **R.4.2** Ask and answer questions about who, what, when, where, how, and why. **R.6.2.b** Describe the relationship between a series of events, ideas, or concepts, using language that pertains to time, sequence, and cause/effect. **R.7.2.b** Use provided resources to determine the meaning of words and phrases in a text. **R.8.2.b** Explain how various text features (e.g., headings, bold print, indexes, graphics, tables of contents, glossaries, links, icons) are used to locate key facts or information in a text efficiently. **R.11.2.c** Explain how specific visuals contribute to and clarify the meaning of a text. **R.11.2.d** Compare and contrast the information presented by two texts on the same topic. **L.4** Use context clues, analyze meaningful word parts, and consult general and specialized reference materials as appropriate to determine or clarify the meaning of unknown and multiple-meaning words and phrases from grade-level content. **W.1.2.b** Gather information from provided sources and/or recall information from experiences in order to answer questions.

	2.T2.3. Explain how the location of landforms and bodies of water helps determine conditions (i.e., climate, weather, vegetation) for habitable living. **2.T2.4.** Explain and describe human interaction with the physical world (the environment).
Ongoing assessment	Refer to the End of Unit Assessment Responses and Exemplars to consider children's responses, and use the End of Unit Assessment Rubric to score each child's responses to Questions 5 and 6.

Notes

Erosion! The Ever-Changing Earth

Adapted from "Erosion! The Ever-Changing Earth," Robin Koontz (2014)

The Power of Water

Water is the primary cause of weathering and erosion. Just a little drop of rain can carry away tiny bits of soil. So, imagine what a downpour can do! Little streams join to become a bigger stream, and the water rushes downhill. More and more sediment is picked up and carried along in streams and then into rivers. The faster the water rushes, the more sediment it gathers. This wears away the riverbanks and creates larger and larger valleys.

Photograph 1: *Moving water created the Grand Canyon, which is about a mile deep and almost twenty miles wide in some parts. It took about 5 million years to form.*

Ice, Wind, and More

Glaciers are very large, slow-moving chunks of ice. They creep across the landscape as they melt and refreeze. Along the way, they pick up rocks and soil and carve the land they travel over. Glaciers shape valleys and lakes.

Wind can blow hard enough to wear down rocks. With help from sand it picks up, wind can reshape a rocky landscape. It can also pull away topsoil and destroy fertile farmland.

Human impact

Many natural landforms help slow down flooding. For example, barrier islands are areas of sand near the coast that are formed by waves. They can lessen the storm surge from a hurricane! However, these natural barriers have been impacted by developments and businesses.

Photograph 2: *In Miami Beach, people are trying to slow down the erosion caused by sea level rise, storms, and apartment buildings by adding more sand on the beach.*

Some structures made by humans can have harmful impacts on the land. Human-made structures like apartment buildings and canals have caused many of our natural landforms to erode. Sometimes they even disappear! One of the reasons this happens is because people pull up plants and cut down trees to build these structures. Erosion is part of nature. However, humans can make erosion happen more quickly.

Possible Solutions

Thankfully, in many areas people are trying to help repair and slow down erosion:

1. Volunteers plant trees and other plants along creek banks.
2. Businesses can no longer cut down trees near certain creeks. Plant and tree roots help to protect the banks from further erosion.
3. People use rocks and fencing to restore creek banks. This helps to prevent the banks from collapsing and eroding. Then more plants and trees are planted.

Perhaps you will want to volunteer to help restore our eroded creeks and streams!

Name _____ Date _____

Use the excerpt from "Erosion! The Ever-changing Earth" to answer the questions.

1. The main idea of the section **The Power of Water** is:

a. Smaller streams of water join larger streams.
b. The Grand Canyon was formed by rushing water.
c. Water is the main source of erosion and weathering.
d. Rain moves soil.

2. Reread these sentences from paragraph 1:

> The faster the water rushes, the more sediment it **gathers.** This wears away the riverbanks and creates larger and larger valleys.

In this section, the word **gathers** means:

a. collects
b. a social event
c. harms
d. moving

Which words or phrases from these sentences helped you choose your answer to Question 2?

_____

_____

_____

3. According to paragraph 2, which is **not** a way that glaciers contribute to erosion and weathering?

a. Glaciers melt and refreeze across landscapes.

b. Glaciers pick up sediment as they move.

c. Glaciers carve the land and create new land formations.

d. Glaciers blow sand around which wears down rocks.

4. Which section of the text would someone read to understand how wind causes erosion?

a. The Power of Water

b. Ice, Wind, and More

c. Human Impact

d. Possible Solutions

5. What do you see in **Photograph 1** that shows the process and the effects of erosion?

Use details from the text and photograph to support your answer.

_____

_____

_____

_____

_____

_____

6. Reread the sections, "Human Impact" and "Possible Solutions." Use details from the text to answer these two questions:

What is one way that people speed up erosion?

What is one way that people can slow down erosion?

On the next page, draw an illustration to expand on your ideas.

Add your illustration here.

End of Unit Assessment Rubric: Unit 2

Text: adapted from "Erosion! The Ever-Changing Earth," Robin Koontz (Lexile 610)

Child's name:

Date:

Prompt

Question 5. What do you see in Photograph 1 that shows the process and the effects of erosion? Use details from the text and photograph to support your answer. (RI.2.7)

Unit 2 Big Ideas

- Wind and water can change the shape of the land.
- Changes happen over time.

1 = Shows little evidence of meeting the standard; **2** = Shows some evidence of meeting the standard; **3** = Meets the standard

	1	2	3
Explains how the photograph shows erosion and supports the details in the text (R.11.2.c, R.11.2.d) (Question 5)	Does not clearly reference any details from the photograph or text.	Cites one detail from the photograph. The detail's connection to the text may be vague or unclear.	Includes at least one detail from the photograph and connects those details to details in the text.
Demonstrates conceptual understanding and knowledge about the topic. (overall)	Does not align response to unit big ideas.	Somewhat aligns response to unit big ideas.	Demonstrates conceptual understanding and knowledge about the unit's big ideas.

Prompt

Question 6. Reread the sections, “Human Impact” and “Possible Solutions.”
Use details from the text to answer these two questions:
What is one way that people speed up erosion?
What is one way that people can slow down erosion?
(RI.2.1, RI.2.3, 2.T2.4, W.2.8)

Unit 2 Big Ideas

- People can change the shape of the land.
- The changing shape of the land impacts people.
- Changes happen over time.

1 = Shows little evidence of meeting the standard; **2** = Shows some evidence of meeting the standard; **3** = Meets the standard			
	1	2	3
Uses details from the text to answer “what” the human impact is on erosion (RI.2.1) (Question 6)	Does not answer either question using details from the text.	Answers one question using details from the text.	Answers both questions using details from the text.
Describes the impact humans have on erosion (R.6.2.b, 2.T2.4)	Does not demonstrate an understanding of humans’ impact on erosion.	Demonstrates a partial understanding of the ways humans either speed up or slow down erosion.	Demonstrates full understanding of how humans can both speed up and slow down erosion.
Gathers information from provided sources in order to respond to a question (W.1.2.b) (Question 6)	Responds to the prompt without clear references to details from the text.	Uses one key detail from the text to respond to the prompt. The reference may be vague or unclear.	Includes at least two details from the text to respond to the prompt.
Demonstrates conceptual understanding and knowledge about the topic. (overall)	Does not align response to unit big ideas.	Somewhat aligns response to unit big ideas.	Demonstrates conceptual understanding and knowledge about the unit’s big ideas.

1 = Shows little evidence of meeting the standard; **2** = Shows some evidence of meeting the standard; **3** = Meets the standard; **4** = Exceeds the standard				
Conventions	**1**	**2**	**3**	**4**
Sentence Complexity L.4.2.a	Errors in usage are frequent; sentences are often difficult to understand.	Writes in clear simple sentences and phrases.	Writes in complete simple and compound sentences.	Produces, expands, and rearranges complete simple and compound sentences.
Capitalization L.2.2.a	Minimally or incorrectly uses uppercase letters.	Inconsistently capitalizes the first word in a sentence, holidays, product names, and geographic names.	Aside from one error, capitalizes the first word in a sentence, holidays, product names, and geographic names.	Consistently capitalizes the first word in a sentence, holidays, product names, and geographic names.
Punctuation L.2.2.b L.2.2.c	Makes frequent errors in end punctuation, making the piece difficult to read.	Inconsistently uses end punctuation, commas, and apostrophes.	Aside from one error, correctly uses end punctuation, commas, and apostrophes.	Correctly uses end punctuation, commas in the greetings and closings of letters, and apostrophes to form contractions and frequently-occurring possessives.
Spelling L.2.2.d L.2.2.c	Makes severe errors in spelling, often obscuring meaning.	Makes frequent errors in the spelling of learned spelling patterns and high-frequency words.	Aside from one or two exceptions, spelling reflects learned spelling patterns and evidence of using reference materials (word walls, personal dictionaries, etc.).	Generalizes learned spelling patterns and shows evidence of using reference materials (word walls, personal dictionaries, etc.) when writing words.

End of Unit Assessment Responses and Exemplars

Question 1. (R.5.2.b, 2.T2.3)

The main idea of the section "The Power of Water" is:

a. Smaller streams of water join larger streams.
b. The Grand Canyon was formed by rushing water.
c. Water is the main source of erosion and weathering.
d. Rain moves soil.

Question 2. (R.7.2.b, L.4, 2.T2.3)

In this section, the word **gathers** means: (R.7.2.b)

a. collects
b. a social event
c. harms
d. prevents

Which words or phrases from these sentences helped you choose your answer to Question 2?

The phrases that helped me determine the meaning of gathers are "more" and "creating larger and larger valleys."

Children should reference at least one piece of evidence that provides context to what **gathers** means in this context.

Question 3. (R.4.2, R.6.2.b, 2.T2.3)

According to paragraph 2, which is **not** a way that glaciers contribute to erosion and weathering?

a. Glaciers melt and refreeze across landscapes.
b. Glaciers pick up sediment as they move.

c. Glaciers carve the land and create new landforms.

d. Glaciers blow sand around which wears down rocks.

Question 4. (R.8.2.b)

Which section of the text would someone read to understand how wind causes erosion?

a. The Power of Water

b. Ice, Wind, and More

c. Human Impact

d. Possible Solutions

Question 5. (R.11.2.c, R.11.2.d)

What do you see in Photograph 1 that shows the process and the effects of erosion? Use details from the text and the photograph to support your response.

In Photograph 1, I see that the river has eroded the rocks and created the Grand Canyon. In the text it says that water is the main cause of erosion and this photograph shows what happens after moving water has worn away rocks for 5 million years.

Children should reference at least one detail from the photograph and one detail from the text.

- From the photograph:
  - The river at the bottom of the Grand Canyon
  - The rocks being worn away by moving water for a long time
- From the text:
  - "Moving water created the Grand Canyon"
  - "Water is the primary cause of weathering and erosion"

End of Unit Assessment Responses and Exemplars

Question 6. (R.4.2, R.6.2.b, 2.T2.4, W.1.2.b)

Use details from the text to answer these two questions:

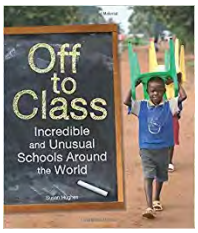
What is one way that people speed up erosion?

What is one way that people can slow down erosion?

Even though erosion happens naturally, humans can speed it up or slow it down. One way people speed up erosion is by cutting down trees and pulling up plants to build structures. For example, when humans build apartments close to the water, they might remove trees that were protecting the bank from erosion. One way that people can slow down erosion is by planting trees and plants along creek banks. Plant and tree roots are strong and can "help to protect the banks from further erosion." This shows that humans can have a positive or negative impact on erosion.

Children may also reference details from the text that show the human impact on erosion. Children should explain both how humans speed up and slow down erosion. For example:

- "Human-made structures like apartment buildings and canals have caused many of our natural landforms to erode."
- "...these natural barriers have been impacted by developments and businesses."
- "Volunteers are planting trees and plants along creek banks."
- "Businesses can no longer cut down trees near certain creeks. Plant and tree roots help to protect the banks from further erosion."
- "Creek banks are being restored by using rocks and fencing. This helps to prevent the banks from collapsing and eroding. Then more plants and trees are planted."



WEEK 8 Day 2

Text Talk
Off to Class: "Water, Water, Everywhere"

Big Ideas	Wind and water can change the shape of the land. The changing shape of the land impacts people.
Weekly Question	How do scientists share their ideas?
Content Objectives	I can use specific examples from the text to discuss how water impacts communities. (R.4.2) I can locate several countries and oceans on a map. (2.T2.1, 2.T2.2)
Language Objective	I can use new definitions for known words that have multiple meanings. (L..4)
SEL Objective	I can understand how communities are impacted by water and share my thoughts with a partner. (Social Awareness)
Vocabulary	**architect**: person who designs buildings, furniture, or communities **bank**: slope that borders a stream or river **Bengali**: a language spoken in Bangladesh **climate change**: general changes in climate, including temperature, rain, snow, and winds **conservation**: preserving and protecting natural resources **glacier**: huge mass of ice collected from snow falling over many years **monsoon**: heavy rains that cause floods **swells**: gets bigger and rises up **riverbank:** slopes that border a river **runoff**: water that runs off the surface instead of soaking in the soil **stretch**: a long area of land or water

	stock: to store
Materials and Preparation	• *Off to Class: Incredible and Unusual Schools Around the World,* Susan Hughes • world map and pushpin • *Off to Class*: "Water, Water, Everywhere" slides • projector and screen • Discussion Prompts chart On the whiteboard write: What is the impact of water on this community? Review the Inner Circle Outer Circle routine (Introduction, Part 2) for use in this lesson.
Opening 4 minutes slide 2	Introduce the book and show the front cover. *Today we will think about the effects of water on communities around the world. We are going to go back to this informational text,* Off to Class: Incredible and Unusual Schools Around the World *by Susan Hughes, and read the section titled "Water Water Everywhere." It is about a special school in Bangladesh that has been affected by water.* Refer to the class map and point to Bangladesh, indicating that the country is located on the continent of Asia and making connections to other Asian countries children know. Put a pushpin on Bangladesh. Set a purpose for reading. *Today we are reading to find out how water affects the land and the community in Bangladesh. We are also reading to understand words with multiple meanings.* *First, let's preview some vocabulary that will help us understand the setting in Bangladesh. The text opens by mentioning "monsoon season." Put your thumbs up if you've heard of that.*
Text and Discussion 22 minutes page 8 slide 3	Read the first paragraph. *According to the text,* ***monsoons*** *are heavy rains that cause floods. Monsoons mostly occur in India and Southeast Asia because of how weather affects the Indian Ocean.* Refer to the world map. Point out the Indian Ocean and then the referenced countries, India and Southeast Asia.

	Read the first two sentences of the second paragraph. Pause after "overflow their banks." *The text tells us that flooding caused by monsoons has grown worse because of climate change. **Climate change** includes changes in temperature, rain, snow, and winds. Most people agree that **global warming**, which is a change in the temperature of the earth's surface, is causing the climate change we have now. One effect of climate change is glaciers melting.*
slide 4	Turn and talk. *What do you see in this photograph?* Read the caption.
slide 5	*This map shows where the Himalaya Mountains and the country of Bangladesh are in relation to each other. Based on the information in this map and the photograph of the Himalaya Mountains, why do melting glaciers from the Himalaya Mountains cause flooding in Bangladesh?* Gather a few ideas. Highlight the close proximity of the mountains to Bangladesh and the glaciers that cover them.
page 8 slide 6 (slide 3 repeats)	Finish reading the second paragraph. *Now turn and talk to a partner to predict: How might monsoons affect students and communities? What in the text have you heard so far to make you say that?*
page 9 slide 7	*Let's find out how monsoons have changed schools in this part of Bangladesh.* Read the section "Unsinkable Schools." *Mohammed started with one boat and now there are 90! It says they travel a 250-kilometer stretch of rivers and streams. Because Susan Hughes is writing about kilometers and miles, we understand that here, **stretch** means distance. That sounds like a long distance for the boats to travel.*
page 9 slide 8	***Conservation** here means saving natural resources, and **Bengali** is a language spoken in Bangladesh.* *Now, try to imagine the boat school. What do you see?* Finish reading the selection. *What do you think about this last part? How have the boat schools helped girls go to school? Share your thoughts with your partner.*

Key Discussion 10 minutes	*Words like "bank" and "stretch" have more than one meaning. Like writers, scientists use precise vocabulary when they share their ideas and discoveries with others. The meaning of a word in a particular situation is very important in helping us understand what scientists and others want to communicate.* *Today we learned about one learning community in Bangladesh. Let's talk about this question* [refer to the board]*, What is the impact of water on this community?* Reintroduce and facilitate the Inner Circle Outer Circle routine. *Try to remember and use information from the text in your conversations.* Arrange children in their two circles, and reread the question on the board. As children talk, refer them to established classroom discussion prompts to encourage reciprocal and productive conversations. Assure that children speak to two or three different partners about this one question.
Closing 4 minutes	Gather children in the whole group. *How has water impacted the way people go to school? What connections can you make to what we learned in Unit 1?* Facilitate a brief discussion, highlighting connections to ideas developed in Unit 1. *Tomorrow, we will talk more about approaches to slowing down and preventing erosion in different places.*
Standards	**R.4.2** Ask and answer questions about who, what, when, where, how, and why. **L.4** Use context clues, analyze meaningful word parts, and consult general and specialized reference materials as appropriate to determine or clarify the meaning of unknown and multiple-meaning words and phrases from grade-level content. **2.T2.1** On a map of the world and on a globe, locate all the continents and some major physical characteristics on each continent (e.g., lakes, seas, bays, rivers and tributaries, mountains and mountain ranges, and peninsulas, deserts, plains). **2.T2.2** On a map of the world and on a globe, locate the oceans of the world, and explain the importance of oceans and how they make the world habitable. **SEL.**Social Awareness
Ongoing assessment	Note children's responses when discussing the text. Do children cite evidence from the text in their conversations?

	Do children correctly use relevant and multiple meaning vocabulary in context? Do children use the map to identify specific places and oceans?

Notes

WEEK 8 Day 3

Text Talk
Could It Work Here, Too?

Big Ideas	Wind and water can change the shape of the land. People can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
Weekly Question	How do scientists share their ideas?
Content Objectives	I can apply what I know about erosion in one place to evaluate possible approaches to erosion in other places. (Science 2-ESS2-1). I can use text features to easily locate key information in a text. (R.8.2.b)
Language Objective	I can recount key ideas and details. (SL.2.2.a)
SEL Objective	I can collaborate with my partner to develop a stance and explain our thinking to others. (Relationship Skills)
Vocabulary	**communicate**: to give information about something by speaking, writing, or showing **complex**: not easy to understand or simple **gather**: to bring things together in a group **stake**: a pointed post or stick that is pushed into the ground
Materials and Preparation	Children will work in pairs. Assign them strategically. Also consider which erosion examples might be a particularly good match for specific children. ● Erosion Examples, one different page for each pair of children ● Could it work here, too? Conversation Prompts, one copy for each pair

	● Could it work here, too? sheet, one copy for each pair ● writing and drawing tools ● all Slowing and Preventing Erosion charts, visible and accessible, for children's reference
Opening 3 minutes	*We have learned about many different approaches that people use to slow or prevent erosion. We have seen that people use different approaches in different parts of the world, depending on the forces of wind and water, what they need to do with the land, and the resources that are available. Can you think of an example?* Gather a few responses from children.
Text and Discussion 36 minutes	Refer to the "Could it work here, too?" sheet. *We have decided on a recommendation to slow erosion on Popham Beach: _____.* [Name the class recommendation.] *Now, you will answer this question: Could it work here, too? Would that same approach, _____* [again name the class recommendation]*, be a good idea for slowing or preventing erosion in a different place?* Refer to the Erosion Examples. *Today you will try to answer this question. You and a partner will receive some information about erosion somewhere else in the world; each pair will receive a different example. This information includes images and captions.* *First, look at and read the information you have. Second, talk about whether the idea we have for Popham Beach would also be a good approach for the place on your page.* Show the Could it work here, too? Conversation Prompts sheet. *This list of questions will help you organize your thinking.* Show the Could it work here, too? sheet. *Third, work together to fill out this sheet. Remember, it's important to communicate <u>why</u> our approach for erosion on Popham Beach would or would not work in the place you are thinking about now. You'll do some writing and also make a drawing that shows what might happen, or what it might look like, if people tried our Popham Beach approach in this other location.* Distribute Erosion Examples, Conversation Prompts, and Could it work

	here, too? sheets, and send children to work. Encourage them to look carefully at the information they have and to draw upon what they know from the unit's study to analyze and conclude whether the Popham Beach recommendation is transferable to other places. Encourage children to access other resources such as texts and charts as is useful, and to trade ideas with other children.
Closing 1 minute	*To do this work, you had to gather much of what you know about erosion and the ways people approach it, and then apply that knowledge to a new situation. This is complex thinking! We will share and compare these ideas in a couple of days.* Collect children's sheets and related Erosion Examples together. They will be used on Day 5 when children present their ideas to each other.
Standards	**R.8.2.b** Explain how various text features (e.g., headings, bold print, indexes, graphics, tables of contents, glossaries, links, icons) are used to locate key facts or information in a text efficiently. **W.1.2.a** Investigate questions by participating in shared research and writing projects. **W.1.2.b** Gather information from provided sources and/or recall information from experiences in order to answer questions. **SL.2.2.a** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. **Science 2-ESS2-1.** Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. **SEL.**Relationship Skills
Ongoing assessment	Questions posed while children are working will serve both to support their work and to collect information about their understanding. Do children apply what they know about the forces of wind and water to understand how erosion happens in a particular place? Do children differentiate between types of erosion? To what degree are children imaginative or practical about their approaches?

Egypt

Large cement blocks called tetrapods line the beach in Baltim, Egypt. The first row has already been almost completely covered with sand. Without action, the other rows will soon disappear as well.

Aswan, Egypt

Photos: Nicholas Linn, http://www.motherjones.com/environment/2015/11/egypt-nile-river-climate-change/
https://www.fairobserver.com/region/middle_east_north_africa/egypt-north-africa-global-warming-climate-change-environmental-latest-world-news-74584/

Myanmar (Burma)

Villagers have planted bamboo stakes around a pagoda where the Toe River meets the Andaman Sea. The land around the pagoda has been eroding, and villagers hope that the bamboo poles will protect it by trapping sediment.

Children play on a wooden walkway in Ashaepyar village. The fishing village of 1,500 homes had to be relocated six years ago due to coastal erosion, and many of the structures, including a concrete school and clinic, were abandoned.

Photos: Taylor Weidman https://www.hakaimagazine.com/photo-essay/big-coastal-squeeze

Jamaica

Beach in Negril, Jamaica

Hellshire Beach, Portmore, Jamaica

Photos: https://phys.org/news/2014-10-famed-beach-jamaica-slowly-erosion.html; http://owensoft.net/v4/item/2166/

England

The Birling Gap in East Sussex, England
These cliffs have seen about seven years of erosion in only two months.

Hundreds of homes will disappear into the North Sea over the next hundred years. Pictured: The coastal road, south of Bridlington

Photos: *PA/National Trust,*
http://www.independent.co.uk/environment/uk-weather-british-coasts-suffer-years-of-erosion-in-just-weeks-of-storms-says-national-trust-9142338.html;
http://www.dailymail.co.uk/news/article-2964728/Britain-s-vanishing-communities-Hundreds-homes-set-disappear-North-Sea-century-rampant-coastal-erosion-devours-roads-villages.html

Southern Africa

Erosion on the Springbok flats, Limpopo Province, South Africa

Soil erosion causes serious damage to agricultural land across the country of Lesotho.

Photos: http://www.grainsa.co.za/soil-erosion-in-south-africa---its-nature-and-distribution;
http://www.orangesenqurak.com/challenge/water+demand/agriculture/lesotho.aspx?print=1

Vietnam

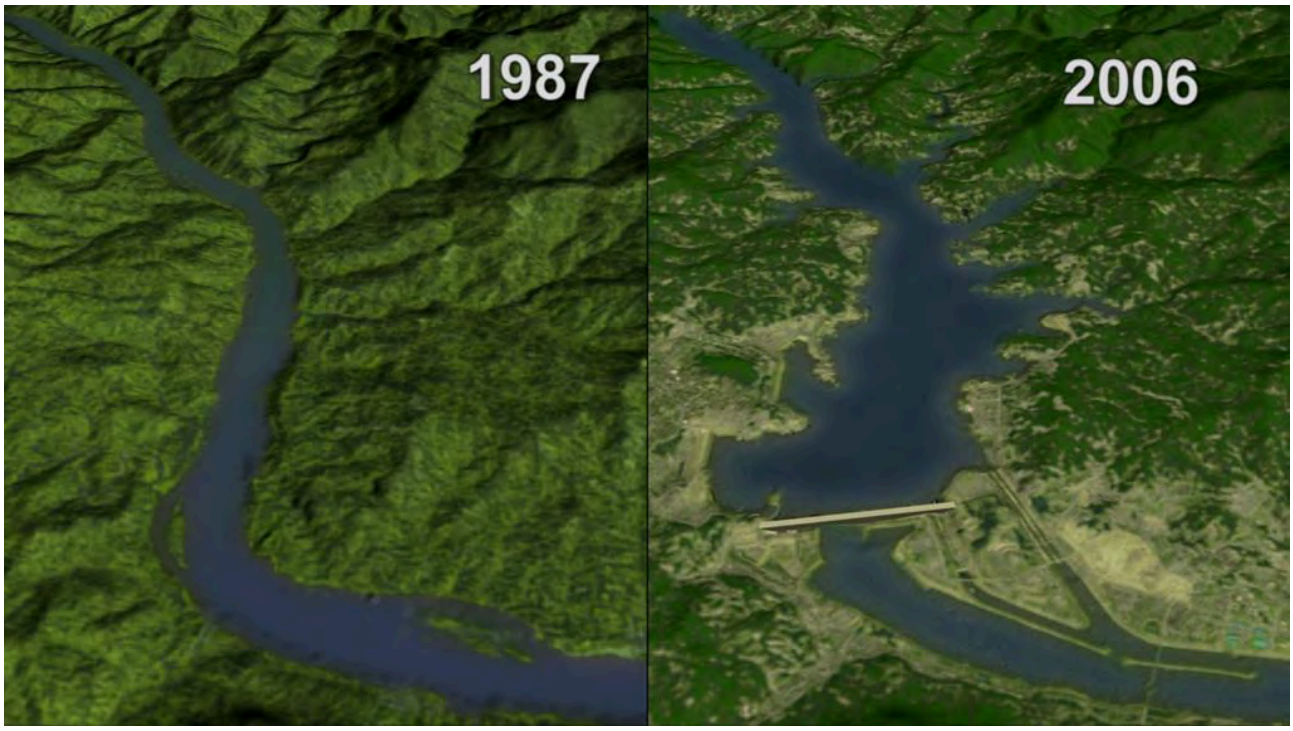
Erosion on a Hau River islet in the Mekong Delta.

Owing to eroded farmland, many families have moved to the mainland, and only 78 households remain on Son Islet located in the middle of the Hau River.

Photos: VnExpress, http://static.thanhniennews.com/Uploaded/minhhung/2016_08_22/satlo_BGGK.jpg?width=840; http://asianews.world/content/vietnamese-delta-islets-lose-farmland-erosion-28645

China

The soil erosion of the First Bay of the Yangtze River creates fear in villagers in Shigu town, Lijiang City, Yunnan Province.



Three Gorges Bridge, Yangtze River, China

Photos: http://en.kunming.cn/index/content/2011-02/14/content_2419889.htm;
http://mandalaprojects.com/ice/ice-cases/china-dam-impact.htm

United States: Massachusetts

An exposed bank in Massachusetts eroding at two feet per year

Erosion underway at Cold Storage Beach in Dennis

Photos: https://climateactiontool.org/content/restore-natural-coastal-buffers-bioengineering-coastal-banks; http://capeandislands.org/post/blizzard-2013-reworks-massachusetts-coastlines#stream/0

United States: Great Plains

Crops are left to die from the effects of wind erosion.

To compare, a healthy agricultural field in Montana, Great Plains, United States

Photos: https://infosys.ars.usda.gov/WindErosion/multimedia/greatplains/greatplains1.html;
Terry Sohl, U.S. Geological Survey. Public domain

Australia

A view looking south towards Lilly Pilly Gully of the erosion damage caused by the March 2011 floods in Wilsons Promontory. The forest was completely stripped.

Photos: http://www.theherald.com.au/story/4473422/legacy-of-land-degradation-australian-soils-aint-soils/
DAVID ILIFF. License: CC-BY-SA 3.0;
https://upload.wikimedia.org/wikipedia/commons/f/fe/Erosion_Damage%2C_Wilsons_Promontory%2C_Australia_-_Mar_2012.jpg

Peru

View of riverbank in Manu National Park, Madre de Dios, Peru

Manu River, Manu National Park, Peru

Photos: https://commons.wikimedia.org/wiki/File:Manu_riverbank.jpg;
https://i.pinimg.com/originals/ae/6d/40/ae6d40e6f6ee90d10a6f3cf054356fea.jpg

Iceland

Erosion by currents wearing away rock in Iceland

Landmannalaugar, southern Iceland

Photos: http://maxpixel.freegreatpicture.com/Iceland-Current-Erosion-Torrent-682608;
Julius Agrippa, https://en.wikipedia.org/wiki/File:Iceland-Landmannalaugar1-July_2000.jpg

Could it work here, too? Conversation Prompts

What is your **location**?
What do you already know about this place?

Look carefully at the photographs. What do you see?
What kind of erosion seems to be happening here?

Why might this be a **problem**?

What do you know, or what can you guess, about what **resources** might be available in this place?

Think about our recommendation to Thompson Island. **Could it work here, too?**
Why or why not?

Could it work here, too?

Names: _____

Location: _____

Erosion seems to be caused by: _____

This could be a problem because: _____

_____

Our Thompson Island approach **could** / **could not** work here

because: _____

_____

_____

Draw what might happen if we tried our Popham Beach approach in this place.

WEEK 8 Day 4

Text Talk
Soil Erosion And How to Prevent It (pages 28-29)

Big Idea	Wind and water can change the shape of the land.
Weekly Question	How do scientists share their ideas?
Content Objective	I can use details from the text to explain how composting and recycling help prevent erosion. (R.4.2, R.9.2.b)
Language Objective	I can determine the meaning of new words and words with multiple meanings by talking about them. (L.4)
SEL Objective	I can reflect on how certain practices can benefit the environment. (Decision Making)
Vocabulary	**bind**: to put or hold together **compost**: decayed organic material **dispose**: to get rid of something, throw something away **fertilizer**: a substance that helps soil stay healthy **logging**: the business of cutting down trees and selling the wood **micro life**: extremely small forms of life **mine**: a pit or tunnel out of which minerals are taken **nutrient**: something that helps people, animals, and plants live and grow (*Week 2) **positive effect**: a good or beneficial change to something *** protect**: to keep safe from harm **reduce**: make less of something **root systems**: a plant's various roots and the structure of those roots

Materials and Preparation	● *Soil Erosion And How to Prevent It,* Natalie Hyde Flag pages 28-29. ● *Dirt, the Scoop on Soil*, Mandy Ross, for reference ● Text Talk notebooks ● writing tools On the whiteboard, write: What are some details you learned about composting? What are some details you learned about recycling? How do composting and recycling help slow or prevent erosion?
Opening 3 minutes	*We've read parts of this text many times over the last several weeks. This is our last selection from* Soil Erosion And How to Prevent It*. Based on its title, "How you can help," what do you think this chapter will be about?* Set a purpose for reading. *Today we are going to gather details that help us understand how reducing our waste, composting, and recycling can help slow and prevent erosion.*
Text and Discussion 20 minutes page 28	Read the first paragraph 1. *In the first sentence we read the word, "reducing." What do you think "reduce" means? Can you replace that word with another word or phrase that makes sense to you?* Highlight responses that are similar to "get rid of" or "make it less," and define the word further if necessary. *What ways does the author suggest for how we can protect the soil?* Encourage children to draw directly from the text, rereading relevant phrases. *Based on this paragraph, what do you think this section is about?* *What do you think this phrase means: "dispose of our waste"?* With the children, unpack the phrase.
page 28	Read the section title, "Waste to Compost," making connections to *Dirt, the Scoop on Soil.* Read the first sentence of the section, and pause. *Turn to a partner. If the kitchen scraps are like fertilizer, how might they help the soil?* Harvest a few ideas.

	The word "binds" has multiple meanings. Listen for the word as I continue reading. Put a thumb up on your chest when you hear the word "binds." Continue reading. Pause as children signal. *You heard it: "binds." Let's think about what "binds" means in this context. Listen to these sentences: The glue binds my name-tag to the folder. My hair tie binds my hair together in a ponytail. Now turn and talk with your partner. In this text, what do you think the author means with "[Compost] binds soil together…"* Harvest a few ideas. *Turn to a different partner. What is this section mostly about? How does composting lead to less erosion by wind and water?*
page 29	Read the section titled "Recycling" *What do you already know about recycling?* Elicit a few ideas. *Before we read, here are a couple of very specific words in the text: **logging** refers to when people cut down trees and sell them for wood or paper; a **mine** is a large hole or tunnel where people pull minerals out of the earth, such as coal or gold.* Read the paragraph. *Turn to a partner. According to the text, what is recycling? What are ways that recycling helps slow or prevent erosion? What details in the text tell us this?*
Key Activity 10 minutes	Distribute Text Talk notebooks and pencils for a Note Break. Refer to the questions on the board and give children time to write. Allow them to consult with each other as they do.
Closing 2 minutes	Invite a few children to share their notes with the whole group. *Answering these questions helped you think about why Natalie Hyde included this chapter in her book. What does she want to communicate?* *We are coming to the end of this unit, The Forces of Wind and Water. From all the texts we've been reading and conversations we've had, what are ways we can help to prevent erosion?*
Standards	**R.4.2** Ask and answer questions about who, what, when, where, how, and why.

	R.9.2.b Identify the main purpose of a text, including what the author wants to answer, explain, or describe. **L.4** Use context clues, analyze meaningful word parts, and consult general and specialized reference materials as appropriate to determine or clarify the meaning of unknown and multiple-meaning words and phrases from grade-level content. **SEL.** Decision Making
Ongoing assessment	Circulate while children are talking in pairs and writing in their notebooks. Pay particular attention to how children discuss the content. Do children reference the text? Do children incorporate relevant vocabulary in context? Do children identify the author's purpose? Do children reflect on the ways that we can help to prevent erosion?

Notes

WEEK 8 Day 5

Text Talk
Synthesis of Unit Ideas and Celebrating Our Learning

Both **Text Talk** and **Studios** times are available for sharing partner work from the Day 3 lesson, reviewing the Weekly Question Charts, adding to the Unit Question Chart as described here, and presenting individual and small group projects from Studios.

Plan the time in a way that makes the most sense for the classroom community, possibly also integrating sharing Erosion posters with fourth graders (Writing) and the Popham Beach Erosion Recommendation with other second graders (Science and Engineering).

Big Ideas	Wind and water can change the shape of the land. People can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
Weekly Questions	All Weekly Questions
Content Objective	I can compare approaches to erosion in different situations to extend my understanding. (Science 2-ESS2-1)
Language Objectives	I can present my conclusions with my classmates through writing, drawing, and talking. (SL.1.2, SL.1.2.a) I can use keywords and phrases that I learned in this unit to help me express my ideas. (L.6.2.a) I can agree with and add onto my classmate's ideas. (SL.1.2.b)
SEL Objective	I can reflect on my experiences over time and summarize my current thinking. (Self-Awareness)
Vocabulary	Include a review of any relevant words highlighted in the Weekly Question charts.

Materials and Preparation	• crayons, for the Matching Crayon routine, one for each pair • children's completed Could it work here, too? sheets and related Erosion Examples, from Day 3 • Weekly Question charts from Weeks 1-8 • How Wind and Water Impact Land chart, from Week 5 Post this chart centrally in the meeting area. • markers • sticky notes, at least 3 per child • writing tools • markers Review the categories and ideas on the How Wind and Water Impact Land chart. Review the Weekly Question charts from Weeks 6, 7, and 8. Identify ideas that build upon each other and those that have contributed to the development of the project work; these will inform additions to the How Wind and Water Impact Land chart. After reviewing them, post the selected Weekly Question Charts around the classroom.
Opening 1 minute	*We are at the end of our second unit of study, The Forces of Wind and Water. We are going to do two things today: share our ideas about whether our Popham Beach recommendation could work in other places, and revisit our Weekly Questions.*
Text and Discussion 20 minutes	*You'll have just a few minutes to share your ideas with another pair. Before you do, review your work with your partner to be clear about what you want to communicate.* Distribute children's completed Could this work here, too? sheets with related Erosion Examples. Give children several minutes to talk in pairs. As they do this, distribute a crayon to each pair.
	Signal children to find their crayon matches. *Tell your classmates about the place you are working with and explain why you concluded that our recommended approach for Popham Beach would or would not be a strong recommendation for this place, too.* *After each pair has a turn to share their work, you can compare your responses: How are the places similar and different, and how are your conclusions similar and different?* *Listen for my signals to keep time.*

	Allow each pair about four minutes to talk. Then allow a couple of minutes for children to respond to each other's ideas and compare their scenarios. Encourage them to refer directly to their sheets and related Erosion Examples, and to use established prompts for discussion. Bring the children back to the whole group.
Synthesizing Unit Ideas 16 minutes	*Each week during this unit we have considered a Weekly Question and gathered our ideas in a Weekly Question chart. I've been reading over all of our charts to see how our thinking has grown and changed. Now you have a chance to do the same thing. This is another way to bring our learning together.* Pass out the sticky notes and writing tools. *Before we talk together, you will review the charts on your own. Walk around slowly and look at each chart. As you look at the chart, think about the Weekly Question and the conversations we have had together. If you start noticing connections between the charts, or if you have a question, you can record it on a sticky note and stick it to the Weekly Question chart that it relates to.* *Also, while you are looking at the charts, circle any words that you think are especially important to thinking about the forces of wind and water on land.* Provide about five minutes for children to review the selected charts quietly, then bring the group back together. Refer to the Unit Question Chart, How Wind and Water Impact Land. Review each existing box. *Based on what you just noticed and noted on our Weekly Question Charts, what more can we add here?* As children suggest ideas, consider collaboratively whether they connect to an idea already expressed on the chart or whether a new box could be created. Be sure to draw a line connecting each new box to the question in the center. Encourage children to support others' comments with specific evidence from the unit. For instance, children might cite specific Text Talk conversations. *Tell us where you saw this on a Weekly Question Chart.* *Why do you say that?* *Can you remember when we talked about that?*

	Encourage children to use the “Me, too” signal, to add on to comments, and to ask clarifying questions.
Closing 3 minutes	Close the session by summarizing the conversation. Make connections to the class project. Share plans for sharing the class poster with fourth graders (see Writing, Day 5), as well as for sharing the class recommendation (and related projects from Studios) with people who work on Popham Beach.
Standards	**SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **SL.1.2.a** Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). **SL.1.2.b** Build on others' talk in conversations by linking their comments to the remarks of others. **L.6.2.a** Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy, that makes me happy). **Science 2-ESS2-1.** Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. **SEL.** Self-Awareness
Ongoing assessment	Note how children are summarizing the information learned. Do children think flexibly? How are they consolidating new information? Do children understand the content and the Big Ideas? Do children make connections between concepts? Do children show interest in a specific topic?

Notes

WEEK 8 Stations

Stations overview table follows information for the End of Unit Assessment.

End-of-Unit Assessment
Materials and Preparation ● End of Unit Assessment text, copy for each child ● End of Unit Assessment questions, copy for each child ● End of Unit Assessment slides ● tablets or laptops for viewing and listening to slides ● POP! Answering Multiple Choice Questions chart and/or half-sheets ● End of Unit Assessment Rubric, one copy to complete for each child ● End of Unit Assessment Responses and Exemplars
Aside from creating a Weekly Question Chart, the Text Talk lesson time is dedicated to administering the End of Unit Assessment. Children read a new informational text about erosion (“Erosion! The Ever-Changing Earth”) and respond to both multiple-choice and long-answer questions. After the assessment is introduced to the whole group, children work on it independently, continuing at the Writing Station if they need additional time. For children who miss the Text Talk lesson, who need additional support understanding how to complete the assessment, or who need adult guidance to respond to the questions, convene a teacher-led small group or work with children individually during Stations. For children returning to the assessment independently at the Writing Station, ensure access to the slides with audio (as needed) and quiet, individual work spaces.

Stations overview page follows.

WEEK 8 Stations

Station	Activities	Materials Writing tools at each station
Guided Independent Reading		• individual book bags
Teacher groups: strategic small group instruction		
Listening & Speaking	Listen and Respond	• audio recording and technology • *Erosion: Changing Earth's Surface* • conversation prompts
Science Literacy	What is the most effective way of slowing or preventing erosion? How did you figure that out?	• Science and Engineering packets • colored pencils
Vocabulary	Choose 3!	• **Week 7** Weekly Words cards • Recording sheets • Choose 3! menu
	Talk About It: This project moves water from storms off the city street and into a garden next to the curb. Based on what you know about erosion, why is this a good idea?	• **Week 7** Weekly Words cards • Week 8 image, 2 copies cut apart • Week 8 sheets
Word Work (align skills with literacy program) Provide activity directions cards	Writing words, using them in sentences	• Week 8 Look Cover Write Check sheets
	Marking different kinds of syllables	• Week 8 Read It, Mark It, Write It sheets
Writing	End of Unit Assessment	See materials list above and Day 1 Text Talk lesson.

Erosion: Changing Earth's Surface Conversation Prompts: Cut apart and provide with the text.

page: 6 How does rain cause erosion? ***Erosion: Changing Earth's Surface***	**page 14:** How do some caves become carved? ***Erosion: Changing Earth's Surface***
page: 20 What are some ways people have developed to stop the erosion they cause? ***Erosion: Changing Earth's Surface***	**After reading:** Now that you have read many texts and learned a lot about erosion, why do you think preventing erosion matters? ***Erosion: Changing Earth's Surface***

Talk About It

http://www.g-a-l.info/watershedinfo.htm

http://www.g-a-l.info/watershedinfo.htm

Talk About It

Name: _____ Date: _____

This project moves water from storms off the city street and into a garden next to the curb. Based on what you know about erosion, why is this a good idea?

Look carefully at the image. **Talk** with your partner, **draw and write** about your ideas, and then **share** your writing. Use important vocabulary words as you talk and write. **Circle** the important words you use.

_____

_____

_____

_____

_____

Name: _____

Look	Cover	Write	Check √
picture			
learn			
earth			

Use it in a Sentence

picture

learn

earth

Skills: Recognize and read grade-appropriate irregularly spelled words.

Name:_____

Read It	Write It	Mark It

Read the word. Write the word. Mark the syllables.

closed	open	v-e	r-controlled
c ŭ p	s h ē	c ā k e	t a r t
c	o	v-e	r

bird	_____ - _____
turn	_____ - _____
tent	_____ - _____
cry	_____ - _____

closed	open	v-e	r-controlled
c u p	s h e	c a k e	t a r t
c	o	v-e	r

home	
flu	
park	
twirl	

Skills: Know and apply grade-level phonics and word analysis skills in decoding words.

WEEK 8 Lesson 1

Science and Engineering: Earth's Systems

Communicating a Recommendation for Popham Beach

Big Ideas	Wind and water can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
S & E **Guiding Question**	What resources can we use to understand changes in the shape of the land?
Content Objectives	I can work with a group of my peers to present a scientific recommendation in writing. (W.1.2.a) I can make a claim about how well an approach works at slowing or preventing erosion and support it with evidence. (2-ESS2-1, Practice 7)
Language Objective	I can discuss group work with my peers in order to reach a shared understanding and collaborate on a finished product. (SL.1.2)
Vocabulary	**entice**: to draw the reader in; make the reader want to know more **recommendation**: suggestion **replicate**: to copy, repeat
Materials and Preparation	Before the lesson, review Writing a Scientific Research Article (http://www.columbia.edu/cu/biology/ug/research/paper.html) for guidance. This guidance describes the kinds of information (in a different format, and minus the abstract) to be included in the recommendation poster. Children will work in six groups, one for each part of the poster. Assign children to groups based on review of: their work during the unit, developing understandings, social relationships, and the potential contributions and needs specific to each element of the poster (organizing material, writing, neatness, drawing/graphic design, etc.). If possible, also include in each group at least one child who conducted an investigation to test the class' recommended approach for Popham Beach. Make a list or chart, for adults' and children's reference, identifying tasks and groups:

Task	Group members
Title and Authors	
Introduction	
Materials and Methods	
Diagram	
Results	
Discussion	

- Communicating Our Recommendation packet, 2 copies
- writing and drawing tools
- chart paper
- tape

Identify children's Science and Engineering packets that include clear and successful completion of the following pages, corresponding to the chosen class recommendation, for children's reference.

- Slowing Erosion Investigation Planning sheet
- Slowing Erosion Investigation sheet
- Replicating Experiments

Supply each poster group with these pages or copies of them.

Talk with colleagues and arrange to share the completed poster with another second-grade class, either at the school or at another school (via photos, Zoom, or other means).

Opening
13 minutes

Gather the children in the meeting area, arranged in six groups.

At the end of last week, during Text Talk, we decided that [approach chosen by the class] *is the approach we will recommend for slowing erosion at Popham Beach. This week, we will communicate our recommendation to another second-grade class.*

Scientists share their ideas in different ways. Last week, five groups of scientists shared their investigation results. Scientists also share their ideas through writing and publishing journal articles and creating posters, often to use at conferences.

Today we will work together to organize the information we need for our recommendation and prepare to present it.

We'll communicate our recommendation for Popham Beach by making a poster. You will work in small groups; each group will create one part of the poster, and then we'll put all the pieces together.

Introduce each page of the Communicating Our Recommendation sheets:

Title and Authors

One group will write the title and authors. When scientists present their findings, they write titles that entice the audience and provide information about their investigations. After the title, they list the authors of the study. This group will also work on the layout of the poster.

Introduction: What is the problem?

Another group will write the introduction. The introduction includes information about the question we had and the problem we set out to solve: What is happening on Popham Beach? Why did we do these investigations?

Materials and Methods

This group will record the materials used in the investigation, the predictions we made, and how we conducted the investigation. This information will help other second graders with their own investigations if they decide to replicate ours.

Diagram

The Diagram group will draw how the investigation was set up, including the shape and location of the island and the shape and location of the approach.

Results: What happened?

This group will draw and write about the results of the investigation: what happened to the island as we conducted our investigations?

Discussion: What do the results tell us?

The final group will write about what our results show: Why this is the best approach for Popham Beach.

	Remember that we want to create a poster that entices readers and communicates our recommendation clearly to our audience—other second graders.
Small Group Work 15 minutes	Refer to the list or chart to identify groups, and send each group to work with writing tools, investigation pages, and the relevant page from a Communicating Our Recommendation packet. As the children work, circulate to support them. When the Title and Author group finishes with their page, give them a sheet of chart paper, tape, and the second Communicating Our Recommendation packet. They will use these to design the poster's layout, discussing where each part will effectively go and then taping the sections to the paper temporarily; these will be replaced with each group's completed section.
Closing 2 minutes	Organize each group's work in progress, including the packet pages they are using for reference, for continued work in Lesson 2. *Today, you began communicating our Popham Beach recommendation. You will have time to finish working tomorrow.* Share the plan for exchanging recommendation posters with another second-grade classroom as part of closing Unit 2: The Forces of Wind and Water.
Standards and Practices	**W.1.2.a** Investigate questions by participating in shared research and writing projects. **SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **2-ESS2-1.** Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
Ongoing assessment	Observe and take notes as the children work in small groups. How do the children translate notes from investigations into writing for an audience? To what extent does the children's work reflect the purpose of each part of the poster (for example, a descriptive title that entices the reader)? Which parts need refining?

Communicating Our Recommendation

Title: _____

_____

Authors: _____

_____

_____

_____

_____

Introduction: What is the problem?

Materials and Methods: What did you use? What did you predict? What did you do?

Materials:	**Predictions**:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Force(s):	_____
waves soft wind strong wind	_____
	_____
	_____

Diagram

Diagram of the investigation:

Results: What happened?

Impact on the land:

Discussion: What do the results tell us?

WEEK 8 Lesson 2

Science and Engineering: Earth's Systems

Communicating a Recommendation for Popham Beach

Big Ideas	Wind and water can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
S & E **Guiding Question**	What resources can we use to understand changes in the shape of the land?
Content Objectives	I can work with a group of my peers to present a scientific recommendation in writing. (W.2.7) I can make a claim about how well an approach works at slowing or preventing erosion and support it with evidence. (2-ESS2-1, Practice 7)
Language Objective	I can discuss group work with my peers in order to reach a shared understanding and collaborate on a finished product. (SL.1.2)
Vocabulary	**recommendation**: suggestion
Materials and Preparation	• each group's work in progress and related resources, from Lesson 1 • poster in progress, with blank section pages • writing and drawing tools • glue stick
Opening 1 minute	*Today you will continue working with your groups to finish the sections of our recommendation poster. When your group thinks you are finished, show your page to me and to another group for final feedback and thumbs up. Then bring it to the layout group to attach it to the poster.* If the layout group has arrived at a plan, invite them to share their mockup to the rest of the group so that children can begin to see the final product take shape. *We hope to finish putting our poster together today! Remember that we want to create a poster that entices readers and*

	communicates our recommendation clearly to our audience—other second graders.
Small Group Work 24 minutes	Send the children to complete their group work, and circulate to support them. Check each group's work as they complete it, offer final feedback, and send them to another group to affirm consensus. Finally, send them to the group working on layout (Title and Authors) to affix it to the poster.
Closing 5 minutes	Bring the class back together to review the poster. *We have learned a lot about erosion and Popham Beach, and now we have a recommendation that we can share!* Review the poster together. If more time is needed, identify final steps, and use Studios or other time to complete the poster.
Standards	**SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **W.1.2.a** Investigate questions by participating in shared research and writing projects. **2-ESS2-1** Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
Ongoing assessment	Observe and take notes as the children work in small groups. How do the children translate notes from investigations into writing for an audience? How does the work on the poster reflect their understanding of erosion and Popham Beach?

Notes

WEEK 8 Studios

ƒ

Refining and Finishing the Popham Beach Erosion Project

Before resuming work on their individual and small group projects related to the Popham Beach Erosion Project, children spend time interviewing each other to ƒ learn about each other's work, clarify their own ideas, and plan next steps.
They then add to, revise, and refine their projects in response to these interviews and their Week 7 reflection and feedback from classmates and adults.
Emphasis is on finalizing projects and preparing for presentation to their selected audience.
Adults circulate to provide support according to the needs of each project group.
On Day 5, using both Text Talk and Studios time, children present their projects to the class and/or to another identified audience.
Continue to use prompts from Week 6.

Big Ideas	Wind and water can change the shape of the land. People can change the shape of the land. The changing shape of the land impacts people.
Weekly Question	How do scientists share their ideas? ƒ
Content Objectives	I can evaluate my own work and make plans for revision, working collaboratively with my classmates. I can design a strong presentation of my ideas, working collaboratively with my classmates.
Language Objectives	I can offer and accept verbal feedback from peers. I can present my ideas to a broader audience.
Materials and Preparation	<u>For the Math Studio:</u> ● various collections of objects (e.g., pattern blocks, connecting cubes, counters, sets of books, etc.) ● Sort and Display Stage 2 Recording Sheet For other Studios: ● Project Interview Questions, copy for each pair of children ● new studios prompts

	• observation sheets Make sure that as many unit resources as possible are available at the Research Studio or obviously posted and accessible around the classroom: texts, photographs, maps, charts, videos.
Opening **Studios Session 1**	*This is our last week of Unit 2: The Forces of Wind and Water! At the Math Studio, you can play Sort and Display. Sort objects into three categories and make a picture or bar graph that shows how you sorted. You can choose a set of interesting items such as: pattern blocks, connecting cubes, or sets of books. Then you will ask your partner two questions that can be answered based on your graph.* *You have been working on many fascinating projects, and you have some important ideas to share. This is the week for you to finish your projects and get them ready to present. At the end of this week, we will* _____ [the plan for presenting work within the class or to a broader audience]. *As scientists, you need to be very clear when you present your ideas so that your audience understands what you want to communicate.* *Last week you spent a lot of time investigating, so you might have some changes you want to make to your project, or you might have an idea of something you want to add, based on your discoveries.* *Before you begin working, look through any notes you have made. What are your next steps? What resources will you need? Is there anything else you want to add now to your plan?* Distribute interview questions. *Find a partner who is not part of your project. Take turns asking and answering these questions about your projects. Asking each other questions can help strengthen both people's work: the* ***interviewee****—the person being asked—can think about what needs to happen next, and the* ***interviewer****—the person asking—can think about ideas for presenting their own project. Make sure you both get to ask and to answer.* *While you talk, you might want to write down a note for yourselves. Be patient while your partner writes. If you don't understand what your partner means about something, ask a follow up question! You can always say, "Please tell me more."* Give children time to conduct these interviews.

	Bring the group back together. *One important practice of scientists is to pay attention to what other scientists are doing and discovering. This makes their own work stronger, and it contributes to the thinking of others. While you are working today, I might suggest that you take a break from your own work to walk around and see what your classmates are working on. This way, you can offer feedback, and you can get inspiration to continue your own work! Make sure you travel as a group so you can talk about what you are thinking and agree on your next steps.*
Process **Studios Session 1**	Children review notes and plans from Week 7 and from the interviews. Once dismissed to work, children gather any additional materials needed for completing their projects and consult relevant resources.
Process **Studios Session 2**	Along with working on their own projects, children walk around the classroom to look at classmates' projects to provide feedback and to inspire their own efforts.
Process **Studios Session 3**	Children put finishing touches on projects and plan for presentation on Day 5.
Facilitation	Encourage children to review and refer to notes in their Planning and Reflection Notebooks to make sure they attend to feedback they have received and plans they have made during Week 7 and interviews. Foster cross-pollination of ideas by suggesting that groups pause to look at each other's work, ask questions, and expand their ideas. Support children if they struggle to come to group consensus about next steps. Refer children to the studios prompts to focus their work as they wrap up their projects and plan for presentation.

Studio(s)	Child(ren) involved	Description
Project:		
Project:		
Project:		
Project:		
Project:		
Project:		
Project:		

Art 	**Project(s):**
Current state of the project	
Questions to prompt further work	
Needed resources, materials, collaboration	
Building 	**Project(s):**
Current state of the project	
Questions to prompt further work	
Needed resources, materials, collaboration	

Discovery 	**Project(s):**
Current state of the project	
Questions to prompt further work	
Needed resources, materials, collaboration	
Math 	**Sort and Display** I can sort a collection and create a representation of my data. <u>Process/Directions:</u> ● Choose 3 categories to sort your objects into. ● Make a picture graph or bar graph to show how you sorted. ● Ask your partner 2 questions that can be answered based on your graph.

Research 	**Project(s):**
Current state of the project	
Questions to prompt further work	
Needed resources, materials, collaboration	
Writing and Storytelling 	**Project(s):**
Current state of the project	
Questions to prompt further work	
Needed resources, materials, collaboration	

Notes for Project Presentation

Popham Beach Erosion Project Interview Questions

What idea are you communicating about erosion?

Who is your audience?

Tell me about your project.

What is your next step?

Have you considered _____?

What do you need to do to finish the project?

Does your group need any help?

Sort and Display Stage 2 Recording Sheet

Directions:

- Choose 3 categories to sort your objects into.
- Make a picture graph or bar graph to show how you sorted.
- Ask your partner 2 questions that can be answered based on your graph.

WEEK 8 Day 2

Writing Explanation

Revising and Publishing

continued from Day 2

Children continue revising their work, based on feedback from partner pairs and the teacher. They begin a mock layout of their posters to prepare for publishing.

Content Objective	I can revise my writing to fit the purpose, structure, and language of explanation. (W.3.2, W.2, W.2.2.a, L.1.2.b, L.2.2.a, L.2, L.1.2.e, L.1.2.a)
Language Objective	I can discuss with my partner the best layout for our posters. (SL.1.2)
Vocabulary	**audience**: an individual or group for whom a piece of writing is composed **layout**: the organization of a page **publish**: to prepare writing for an audience **revise**: to make changes to writing
Materials and Preparation	Materials from Day 1, and add: ● Sample Posters slides, from Week 5, Day 2 ● markers ● chart paper or poster board for publishing, one for each child and one for the class ● masking tape ● class-generated Popham Beach Caption and explanation ● Explanation Steps sheets, copies as needed for publishing
Opening 1 minute	*Today you will finish revising and choose a layout for your poster.*
Joint Construction 8 minutes	*One of your jobs today is to plan the layout for your poster. The **layout** is how the poster is set up. The way each piece is organized on the poster is important to helping your audience understand what you are communicating. We are going to set up our class poster first, and then you will have a chance to do the same thing with your partners.*

	Let's look at the sample posters again for inspiration. Review and discuss the Sample Posters slides. *What are your ideas for our poster? Where should we put each part? Remember, we need to include the phenomenon statement and explanation steps. We also need to have our photo with a caption somewhere, as an example of a place affected by erosion by waves. Is there any other information we might want to add to this poster?* [a title, the names of the authors] Together with the children, move the different pieces around on the poster and discuss the pros and cons of different layouts. *Now that we have chosen a layout, let's tape our papers to the poster. Taping them on—instead of gluing—allows us to still make changes to the layout if we want to.* Use a small amount of tape to attach the pieces to the chart paper (so that they can be removed easily later).
Joint Construction in Pairs 20 minutes, concurrent with Small Group Instruction	*Now it's your turn to work on your poster layout. Move pieces around and try different things. When you have a layout that you like, tape the pieces on, so that you won't forget where they go.* *When you finish, continue revising and editing your work.* *Then you can begin to publish your explanation steps. Copy onto new sheets any that you have changed significantly.* Note that children do not need to copy any explanation steps that did not require revision.
Small Group Possibilities 20 minutes, concurrent with Joint Construction	As children work independently, meet with small groups, as described in the Day 1 lesson.
Closing 1 minute	*Now that you have revised and chosen a layout, you will be able to publish your poster tomorrow.*
Standards	**W.3.2** Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end. **W.2** Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. **W.2.2.a** With guidance and support from adults and peers, focus on a topic

	and strengthen writing as needed by revising and editing. **L.2** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **L.1.2.e** Use adjectives and adverbs and choose between them depending on what is to be modified. **L.1.2.a** Use collective nouns (e.g., group). **L.1.2.b** Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish). **L.2.2.a** Capitalize holidays, product names, and geographic names. **SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
Ongoing assessment	Collect the children's posters. What layouts do they use? Will these layouts be effective in communicating information to fourth graders?

Notes

WEEK 8 Day 3

Writing Explanation

Publishing

Content Objective	I can publish my explanation and report. (W.2, W.3.2)
Language Objective	I can discuss my publishing choices. (SL.1.2)
Vocabulary	**caption**: a short explanation of an image **explanation**: a genre of writing whose purpose is to explain a phenomenon in sequence **explanation steps**: the phenomenon explained, in order **layout**: the organization of a page **phenomenon statement**: the beginning of an explanation, where the phenomenon is introduced **publish**: to prepare writing for an audience **revise**: to make changes to writing
Materials and Preparation	• posters, from Day 2 Before the lesson, look at the posters. Choose two children who used different layouts, and ask them to be prepared to share their choices with the class. • writing tools • Explanation Steps sheets, copies as needed for publishing • glue sticks, one for each child • children's writing folders, including Caption Templates and explanations • Sample Posters slides, available for children's reference
Opening 9 minutes	*Today you will finish publishing your explanation posters. Before we begin, let's have two writers share their layouts and the reasons they chose to organize their posters that way.* Have the two children share their layouts, discussing why they chose to

	organize their work in the ways they did. *Think about your own poster. Does looking at and hearing about these two layouts inspire you to change anything on your poster to make it more effective?*
Publishing 20 minutes	*Your first job today is to publish each part of your explanation. If you revised the explanation steps, you can copy them onto new sheets of paper.* *Then you will be ready to set up your poster. Before glueing, place all of your sheets on the poster. Make sure your work includes your image and caption, phenomenon statement, and all of your explanation steps, in order.* *When your layout looks right to you, use a glue stick to attach each paper to your poster.* Send the children to work. Circulate to support children in publishing revised explanation steps and choosing effective layouts.
Closing 1 minute	*Soon we will share our work with each other, and with fourth graders!*
Standards	**W.3.2** Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end. **W.2** Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. **SL.1.2** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
Ongoing assessment	Collect the children's posters. What layouts do they use? Will these layouts be effective in communicating information to fourth graders? Do their illustrations and words communicate their ideas effectively?

WEEK 8 Day 4

Writing Explanation

Post-Assessment

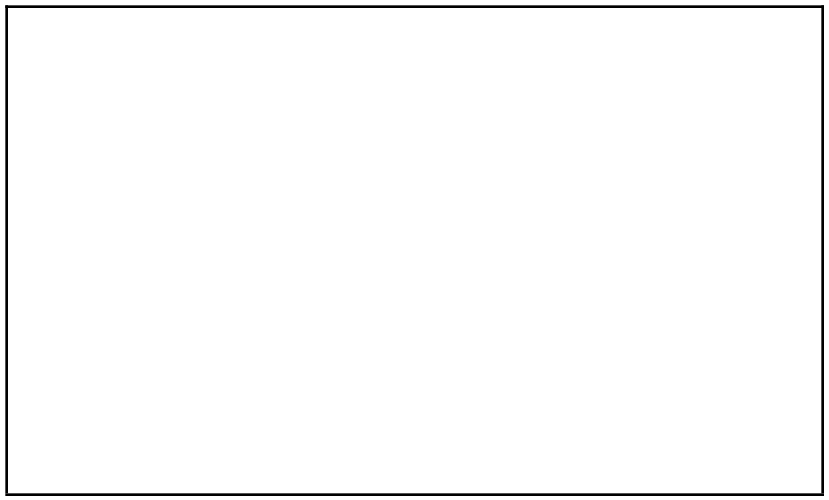
Content Objective	I can write to explain how waves change the shape of the land. (W.3.2)
Language Objective	I can orally explain how waves change the shape of the land to my partner. (SL.1.2.a)
Materials and Preparation	• Wellfleet, Cape Cod slide • Explanation Post-Assessment sheet, 3 copies for each child, plus a few extra copies • writing tools • Explanation Rubric, one copy to complete for each child
Opening 9 minutes slide 2	*You have learned so much about explanation! Today I want to find out more about what you learned, so you will do some writing by yourself.* Show the Wellfleet, Cape Cod slide. *Take a look at this photograph. This is a picture of a beach in Wellfleet, on Cape Cod, in the state of Massachusetts. The shoreline has eroded over time.* Show the Explanation Post-Assessment sheet. *You will write to explain how waves change the shape of the land.* *Before you write, you can practice your explanation by telling it.* Think, Pair, Share. *Explain how waves change the shape of the land.*
Individual Construction 20 minutes	Distribute writing tools and Post-Assessment sheets, and send the children to write.

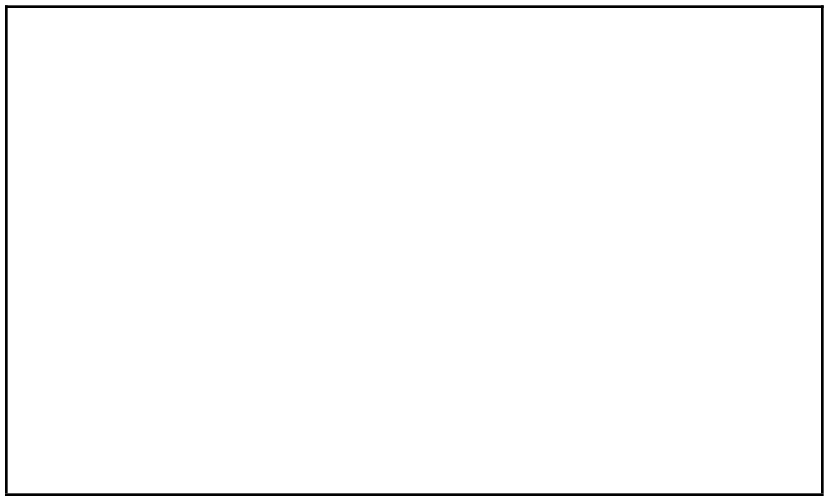
Closing 1 minute	*It's so helpful for me to read your writing and to see what you learned!*
Standards	**W.3.2** Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end. **SL.1.2.a** Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
Ongoing assessment	Use the Explanation Rubric to score each child's work.

Notes

Explanation Post-Assessment

Write to explain how waves change the shape of the land.





Grade 2 Explanation Rubric

Child's Name: _____

1 = Shows little evidence of meeting the standard; **2** = Shows some evidence of meeting the standard; **3** = Meets the standard; **4** = Exceeds the standard					
Purpose (W.3.2, W.2)	**Not Observed**	**1**	**2**	**3**	**4**
to explain a phenomenon in sequence		Reflects a different purpose than required by the task.	Some sentences reflect an accurate purpose, but most do not.	Reflects a mostly accurate purpose, but one or more sentences deviate from it.	Reflects an accurate purpose, and all sentences support the genre purpose.
Structure (W.3.2)	**Not Observed**	**1**	**2**	**3**	**4**
Phenomenon Statement: names the phenomenon introduced in the explanation		With support, attempts to name and introduce the phenomenon, but most elements are inaccurate or unclear.	With support, attempts to name and introduce the phenomenon, but some elements are inaccurate or unclear.	With some support, accurately names and introduces the phenomenon.	Independently, accurately names and introduces the phenomenon.
Explanation Steps: includes all parts of the explanation, explained in order		Includes one or more steps that do not accurately explain the phenomenon.	Includes two steps to explain the phenomenon; or steps are unclear and/or do not accurately explain the phenomenon.	Includes three or more steps that accurately explain the phenomenon. Steps are in the correct order.	Includes all steps to accurately explain the phenomenon. Steps are in the correct order.

Language	**Not Observed**	**1**	**2**	**3**	**4**
Verbs: uses present tense action verbs (L.1.2.d)		Does not use present tense action verbs.	Uses some present tense action verbs.	Uses mostly present tense action verbs.	Uses all present tense action verbs.
Nouns: uses general nouns, naming a group or class, rather than something specific (L.1.2.a, L1.2.b)		Uses mostly specific nouns.	Switches between general and specific nouns.	Uses mostly general nouns.	Uses all general nouns.
Adjectives: words and prepositional phrases are used to describe the nouns; adjectives are packed into sentences, rather than spread out over several sentences (L.1.2.e)		Does not include adjectives.	Uses one adjective to pack information into a sentence; or adjectives are unclear and do not accurately pack information.	Uses adjectives to pack information into two sentences.	Uses adjectives to efficiently combine sentences and pack information in three or more sentences.
Conventions	**Not Observed**	**1**	**2**	**3**	**4**
Sentence Complexity (L.2)		Errors in usage are frequent; sentences are often difficult to understand.	Writes in clear simple sentences and phrases.	Writes in complete simple and compound sentences.	Produces, expands, and rearranges complete simple and compound sentences.

Capitalization (L.2.2.a)		Minimally or incorrectly uses uppercase letters.	Inconsistently capitalizes the first word in a sentence, holidays, product names, and geographic names.	Aside from one error, capitalizes the first word in a sentence, holidays, product names, and geographic names.	Capitalizes the first word in a sentence, holidays, product names, and geographic names.
Punctuation (L.2.2.b, L.2.2.c)		Errors in end punctuation are frequent, making the piece difficult to read.	Inconsistently uses end punctuation, commas, and apostrophes.	Aside from one error, correctly uses end punctuation, commas, and apostrophes.	Correctly uses end punctuation, commas in the greetings and closings of letters, and apostrophes to form contractions and frequently-occurring possessives.
Spelling (L.2.2.d, L.2.2.e)		Errors in spelling are severe and often obscure meaning.	Includes frequent errors in the spelling of learned spelling patterns and high frequency words.	Aside from one or two exceptions, spelling reflects learned spelling patterns and evidence of using reference materials, word walls, personal dictionaries, etc.).	Generalizes learned spelling patterns and shows evidence of using reference materials (Sound Walls, personal dictionaries, etc.) when writing words.

Notes

WEEK 8 Day 5

Writing Explanation

Presentation and Celebration

Two suggestions for presentation and celebration are outlined below.
Suggestion 1 involves arranging time with a fourth-grade class to present children's work.
Suggestion 2 involves presenting within the second-grade classroom, with work delivered to fourth graders.

Content Objective	I can present my work, explaining how one type of erosion happens. (SL.2.2.b)
Language Objective	I can ask and answer questions about erosion posters. (SL.3.2.a)
Materials and Preparation	If possible, arrange to partner with a fourth grade class. Set up a time for the classes to be together, and for the second graders to share their work with the fourth graders (Suggestion 1). Take pictures of the posters, or find another way to preserve the children's work. ● children's published writing
Opening 1 minute	*You have learned so much about erosion! Now you have a chance to share some of what you have learned by presenting your explanation posters.*
Suggestion 1: Presenting to Fourth Graders 28 minutes	Plan to partner with a fourth grade class. Meet together and have second graders pair up with fourth graders and present their work. Invite the fourth graders to ask questions both about the content of the posters and about the process of creating the posters. Invite children from both classes to reflect on the experience by sharing appreciations and new understandings. Present the fourth graders with the posters, to keep as reference material

	for their study of erosion.
Suggestion 2: Presenting in the Classroom 28 minutes	Match together children who wrote about different types of erosion. Have one child read their explanation to the other. Allow time for the second child to ask questions and for the first child to answer. Then, have the children switch roles. Invite children to reflect on the experience by sharing appreciations and new understandings. Plan to deliver the posters to fourth graders.
Closing 1 minute	*Your posters demonstrate how much you have learned this unit!* *They will be so helpful to fourth graders as they learn about erosion.*
Standards	**SL.2.2.b** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. **SL.3.2.a** Describe people, places, and things, tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
Ongoing assessment	Reflect and make notes about the unit. What did children understand about the purpose, structure, and language of explanation? What is still challenging? What do I still need to address with children this year? What might I do differently next year?

Notes