



Weekly Question: How can wind change land, and why does it matter?			
<p><b>Texts</b></p>      	<p><b>Vocabulary and Language</b></p> <p>Days 1 &amp; 2: Introduce Weekly Words: <i>batter, destroy, grind, particle, transform, warn, weather (v), weathering</i></p> <p>Day 3: Prefixes</p> <p>Day 4: Prefixes</p> <p>Day 5: Making New Words</p> <hr/> <p><b>Text Talk</b></p> <p>Day 1: “Hurricanes” (informational text)</p> <p>Day 2: <i>Soil Erosion and How to Prevent It</i> and <i>How Do Wind and Water Change Earth?</i></p> <p>Day 3: <i>Erosion: Changing Earth’s Surface</i></p> <p>Day 4: “Dunes” (poem)</p> <p>Day 5: Moving Away from the Edge (slides)</p> <hr/> <p><b>Stations</b></p> <p>Guided Independent Reading</p> <hr/> <p>Listening &amp; Speaking: Listen &amp; Respond (<i>I Know the River Loves Me</i>)</p> <p>Science Literacy: How can wind change the shape of land?</p> <p>Vocabulary: Choose 3!, Think About It</p> <p>Word Work: choose from activities</p> <p>Writing: Mid-Unit Assessment; follows from Text Talk Day 4</p> <hr/> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Science and Engineering</b></p> <p>Lessons 1 &amp; 2: The Forces of Wind on Land</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Studios</b></p> <p>Children represent wind with art media and tell stories involving wind, construct water-based landscapes and simulate erosion, and review classroom resources to consolidate knowledge.</p> </td> </tr> </table> <hr/> <p><b>Writing: Explanation</b></p> <p>Day 1: Pre-Assessment</p> <p>Day 2: Deconstruction: Explanation Purpose; Deconstruction: Posters</p> <p>Day 3: Deconstruction: Explanation Stages</p> <p>Day 4: Joint Construction and Individual Construction: Illustrating Explanations</p> <p>Day 5: Joint Construction</p>	<p><b>Science and Engineering</b></p> <p>Lessons 1 &amp; 2: The Forces of Wind on Land</p>	<p><b>Studios</b></p> <p>Children represent wind with art media and tell stories involving wind, construct water-based landscapes and simulate erosion, and review classroom resources to consolidate knowledge.</p>
<p><b>Science and Engineering</b></p> <p>Lessons 1 &amp; 2: The Forces of Wind on Land</p>	<p><b>Studios</b></p> <p>Children represent wind with art media and tell stories involving wind, construct water-based landscapes and simulate erosion, and review classroom resources to consolidate knowledge.</p>		
<p><b>Mentor texts</b></p>  			

Unit 2: The Forces of Wind and Water

WEEK 5 Days 1 & 2

**Vocabulary & Language**  
Weekly Words

<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Language Objectives</b>	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)
<b>Vocabulary</b>	<b>batter:</b> 1. to beat hard again and again; 2. to damage by beating <b>destroy:</b> to ruin completely <b>grind:</b> to crush or make by crushing into very small pieces or a powder <b>particle:</b> a tiny amount or piece <b>transform:</b> to change the form, look, or shape of something <b>warn:</b> to tell of a possible danger, to alert <b>weather (v):</b> to change, from being exposed to weather such as wind, rain, or sleet <b>weathering:</b> changes produced by exposure to weather
<b>Materials and Preparation</b>	Choose four words to teach each day, following the steps of the Weekly Words routine. <ul style="list-style-type: none"><li>● Week 5 Weekly Words cards</li><li>● chart paper</li></ul> Create the week’s Weekly Words chart by writing out the Weekly Words and their definitions. Add icons, sketches, or images as needed.
<b>Opening Day 1</b>	<p><i>This week we are talking about wind, so the Weekly Words are ones we can use to talk about that. Today’s words are: _____, _____, _____, and _____.</i></p> <p>As children rate their knowledge of each word, ask a few children to share their ideas about the word. Use this opportunity to highlight connections,</p>

	<p>similarities, and differences to other words used in the classroom, remarking on parts of speech and morphology and affirming children’s word knowledge.</p> <p>As children respond to the Think, Pair, Share prompts, encourage them to use the word as they speak. Offer sentence stems where it might be helpful.</p>
Day 2	<p><i>Let’s continue learning our words for this week. Today’s words are: _____, _____, _____, and _____.</i></p>
Teaching the words	<p><b>batter</b> (verb) Elaboration: <i>People sometimes beat or batter a rug—this is a way to clean it! You hit it over and over again so the dust and dirt that are stuck in it loosens and comes out. See all the dirt coming out of this rug?</i></p> <p><i>But if you batter a rug too hard or too often, you can damage or destroy the rug you are trying to clean. You can imagine making a spot where the rug is worn away from all the battering.</i></p> <p>Think, Pair, Share prompt: <i>Picture ocean waves on a rocky coast. Do the waves beat or batter the rocks? What is the difference?</i></p> <hr/> <p><b>destroy</b> (verb) Elaboration: <i>Some person or people built this sand castle on the beach, and now the waves are about to destroy it! It will be completely ruined, unable to be put back together.</i></p> <p>Think, Pair, Share prompt: <i>Have you ever had something you made or cared about be destroyed? was it? What destroyed it? How did that feel?</i></p> <hr/> <p><b>grind</b> (verb) Elaboration: <i>A mortar and pestle is a tool used for grinding—in this case, grinding spices to use in cooking.</i> Show a gesture of grinding by rotating a fist back and forth in the palm of the other hand.</p> <p>Think, Pair, Share prompt: <i>Water can help grind rocks. Describe the action of how this can</i></p>

	<p><i>happen.</i></p>
	<p><b>particle</b> (noun)  Elaboration:  <i>Sand is really just tiny particles, or bits, of rock or stone.</i></p> <p>Think, Pair, Share prompt:  <i>Can you describe how stones become particles of sand?</i></p>
	<p><b>transform</b> (verb)  Elaboration:  <i>When something transforms, it doesn't change a little bit, it changes a lot, sometimes into something completely different. Some things transform pretty quickly—like a ball of clay that you transform with your hands into a new shape—and some things transform over a long period of time.</i></p> <p>Think, Pair, Share prompt:  <i>What's something else that might transform quickly? What's something that takes a long time to transform?</i></p>
	<p><b>warn</b> (verb)  Elaboration:  <i>We warn someone about something before it happens, to keep that person out of danger. We see danger coming, and we do or say something to let them know to be careful or get out of the way. People often use signs to warn people about possible danger.</i></p> <p>Think, Pair, Share prompt:  <i>What are some words people use to warn each other about possible danger? What is a gesture, or body movement, you might use to warn someone?</i></p>
	<p><b>weather</b> (verb)  Elaboration:  <i>You know this word as a noun: weather is wind, sun, rain, snow... To weather, the action verb, is to be worn down or worn away from that wind and rain.</i></p> <p>Think, Pair, Share prompt:  <i>What do you think has caused this wooden, painted chair to weather?</i></p>
	<p><b>weathering</b> (noun)  Elaboration:</p>

	<p><i>We have seen weathering on landforms. This photo shows weathering on a stone statue in England. When this statue was first carved, the details were clearer. They have been worn down by the weather over many, many years.</i></p> <p><i>Look how the suffix -ing changes this word! To “weather” is a verb that describes the action of being worn down by rain, ice, or wind. The -ing suffix, in this case, makes the word mean the thing that happens from the action.</i></p> <p>Think, Pair, Share prompt: <i>Try to explain in your own words how you think weathering happens.</i></p>
<b>Closing</b>	<p><i>This week we are thinking about how wind impacts land, and how this affects us. The words we’re studying this week will help us to talk about this, our texts, and other experiences we’re having together.</i></p>
<b>Standards</b>	<p><b>SL.1.2</b> Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p><b>L.5</b> Demonstrate understanding of figurative language, word relationships, and nuances in word meanings sufficient for reading, writing, speaking, and listening.</p> <p><b>L.5.2.a</b> Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).</p>
<b>Ongoing assessment</b>	<p>Use information gathered from each lesson to plan for embedded opportunities for teaching and reinforcing words.</p> <p>How do children interact with new and familiar words? Are they playful, curious, perplexed, disengaged?</p> <p>Do children connect words to personal experiences?</p> <p>What connections do children make between words they are learning and familiar words?</p> <p>How do children integrate learning from phonic lessons and other developing morphological knowledge?</p> <p>How do children respond when they discover an error in their understanding or use of a word? How flexible are they when confronted with new definitions?</p> <p>How do children talk with peers about new words—do they use gestures, substitute familiar words, dig for descriptions, tell stories?</p> <p>Keep a list to follow each child’s vocabulary growth over time.</p>



batter

verb

<https://greenrugcare.com/2018/04/13/how-to-care-oriental-rugs/>



destroy

verb

<https://hbr.org/2015/06/how-merck-is-trying-to-keep-disrupters-at-bay>

Weekly Words U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education



grind

verb

<https://www.wikihow.com/Use-a-Mortar-and-Pestle>



particle

noun

<https://www.britannica.com/science/sand>

Weekly Words U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education



transform

verb

<https://greattransitionstories.org/patterns-of-change/the-metaphor-of-metamorphosis/>



warn

verb

<https://lowrylaw.com/slip-and-fall-lawyer/>

Weekly Words U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education



weather

verb

<https://www.acmebrooklyn.com/prop/ch061-weathered-multicolor-wood-chair/>



weathering

noun

<https://rhs.rocklinusd.org/subsites/Geology/documents/CHAPTER%2014%20WEATHERING%20AND%20EROSION.pdf>

Weekly Words U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education

## Unit 2: The Forces of Wind and Water

### WEEK 5 Day 3

## Vocabulary & Language

### Prefixes

<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Language Objective</b>	I can determine the meaning of words with prefixes. (L.4.2.b)
<b>Vocabulary</b>	<b>prefix:</b> a word part added to the beginning of the word that changes the meaning of the word
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>Prefixes slides</li></ul> Note: This lesson uses slides 1-10.
<b>Opening</b>	<i>Some words have additions at the beginning, called prefixes, that change the meaning of the word. Today we are going to add prefixes to words and determine their new meanings.</i>
<b>Discussion</b>	<i>Before we get started, let's review some prefixes and their meanings.</i>
slide 2	
slide 3	<i>One of our Weekly Words was "transport." The prefix "trans-" means across and gives us a clue to the word's meaning. How does the meaning of "trans-" relate to the word "transport"?</i>
slide 4	<i>"Transform" is one of our Weekly Words this week. How does the prefix "trans-" relate to the word "transform"?</i>
slide 5	<i>Let's look at one of last week's Weekly Words. What does "suitable" mean?</i>
slide 6	<i>Let's add the prefix un- to the beginning of the word. What does the word say now? What does the word "unsuitable" mean? How do you know?</i>

slide 7	<i>“Judge” was one of our Weekly Words from Unit 1. Let’s review its meaning.</i>
slide 8	<i>Let’s add the prefix mis- to the beginning of the word. What does the word say now? What does the word “misjudge” mean? How do you know?</i>
slide 9	<i>For our last word, let’s try something different. This Weekly Word begins with the prefix de-.</i>
slide 10	<i>If “decompose” means to break down, what do you think “compose” means?</i>
<b>Closing</b>	<i>Today we used what we know about prefixes and root words to determine the meaning of words. Tomorrow you will write your own sentences with these words.</i>
<b>Standards</b>	<b>L.4.2.b</b> Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
<b>Ongoing assessment</b>	During the discussion, listen for evidence that children are understanding the meaning of individual prefixes and how they change the meaning of the word.  Do children know the meaning of previously-learned prefixes? Do they accurately predict the meaning of unknown words using their knowledge of root words and prefixes?

**Notes**

Unit 2: The Forces of Wind and Water

WEEK 5 Day 4

**Vocabulary & Language**  
Prefixes

<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Language Objective</b>	I can write sentences that demonstrate my understanding of the meaning of words with prefixes. (L.4.2.b)
<b>Vocabulary</b>	<b>prefix:</b> a word part added to the beginning of the word that changes the meaning of the word
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>• Prefixes slides, from Day 3</li><li>• paper and pencil, one for each child</li></ul>
<b>Opening</b>	<i>Yesterday we explored words with prefixes. Today you will use those words in sentences.</i>
<b>Discussion</b> slides 2, 5-10	Quickly review the definitions for the prefixes and words discussed on Day 3.
slide 11	<i>Choose one of the sets of words we discussed. Then, write two sentences that show the meaning of each word in the set. As you write, think about how adding a prefix changes the meaning of the word.</i> Send children to write independently or with a partner. Circulate to support them, reviewing the different definitions as necessary.
	Bring the class back together. Invite a child to share their sentences. As a class, discuss how the sentences demonstrate the meanings of the words and how the meaning changes when a prefix is added. Encourage children to use gestures to demonstrate the different meanings of the words in context. Repeat the process with other children, as time allows.
<b>Closing</b>	<i>Today you wrote sentences that demonstrated the meanings of</i>

	<i>words with and without prefixes.</i>
<b>Standards</b>	<b>L.4.2.b</b> Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
<b>Ongoing assessment</b>	<p>Reflect on the class discussion.          What do children understand about how prefixes change the meaning of words?</p> <p>Review children’s sentences.          Do children’s sentences reflect understanding of the different meanings of the words?</p>

**Notes**

## Unit 2: The Forces of Wind and Water

### WEEK 5 Day 5

#### Vocabulary & Language

##### Making and Using New Words

<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Language Objective</b>	I can work with my classmates to make new words by identifying root words and changing or adding parts. I can use the words we make in a sentence. (SL.1.2, L.4.2.c)
<b>Vocabulary</b>	<b>batter:</b> 1. to beat hard again and again; 2. to damage by beating <b>destroy:</b> to ruin completely <b>grind:</b> to crush or make by crushing into very small pieces or a powder <b>transform:</b> to change the form, look, or shape of something <b>warn:</b> to tell of a possible danger, to alert <b>weathering:</b> what happens when a part of a rock is loosened by nature; the breakdown of landforms into smaller pieces
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>• Week 5 Making and Using New Words sheets, one for each small group</li><li>• pencils, one or two for each small group</li><li>• Week 5 Weekly Words cards, those listed above</li><li>• chart paper and markers (2 different colors)</li></ul>
<b>Opening</b>	<i>This week we are using the Making and Using New Words routine.</i>
<b>Key Activity</b>	<p>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 knowledge about how words are formed.</p> <p>While children work, select one group to present their response to the class. Have the group identify one or two members who will present the words they made and read their sentence aloud.</p>

	<p>After about 7 minutes, signal for children to finish their answers and return to the whole group.</p> <p>Invite the presenter(s) from the selected group to share the word they started with, new words they made, and then the sentence they wrote.  <i>Please read your sentence slowly so I can write it down.</i></p> <p>Write the sentence on the chart paper.</p> <p><i>Let's see which Weekly Word they used and changed! I'll read the sentence again, and you can let me know when you hear the word that came from one of our Weekly Words.</i></p> <p>Read the sentence aloud, slowly, and pause as children identify the Weekly Words. Circle that word with the contrasting marker.  <i>Let's think together about how this word changed and how that changed its meaning.</i></p> <p>Invite children from other groups to share any ways that this group's work resembles their own.</p>
<b>Closing</b>	<p><i>We can see that changing a word's ending changes its meaning and how it's used.</i></p>
<b>Standards</b>	<p><b>SL.1.2</b> Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p><b>L.4.2.c</b> Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).</p>
<b>Ongoing assessment</b>	<p>Listen to children's conversations as they work.</p> <p>What knowledge do children demonstrate about parts of words?  What contributions do they make to the construction of a response to a specific question?</p> <p>Observe children's interactions.</p> <p>How effectively do children work in their groups?  What roles do they take on?</p> <p>Reflect on the whole group sharing of one group's response.</p> <p>What more was revealed about children's understanding of how words' meanings change according to their parts?</p> <p>Review each sheet. Use children's answers to inform planning for successive lessons, revisiting words and suffixes, and informal conversations with individual children.</p>

Names: \_\_\_\_\_

Choose one Weekly Word. Underline the base word. Make new words by adding or changing suffixes. Write the words. Check to make sure they make sense. What do the new words mean?

Weekly Words	Suffixes		New Words
batter destroy grind transform warn weathering	- s - ed - ing - es - er - est	- ful - ment - ness - less	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Write a sentence with one of the new words.

---

---

---



**WEEK 5 Day 1**

**Text Talk**  
**“Hurricanes”** (informational text)

Note: This text-based lesson is only 15 minutes long; the remainder of the time is used to introduce and begin the Mid-Unit Assessment.

<b>Big Ideas</b>	Wind and water can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Content Objective</b>	I can identify the main topic and supporting details in a text about hurricanes. (R.5.2.b) I can determine the meaning of words in a text on hurricanes. (R.7.2.b)
<b>Language Objectives</b>	I can discuss specific ideas and reasons with my peers using content-related vocabulary. (SL.1.2.c, L.6.2.a)
<b>Vocabulary</b>	* <b>approach</b> (n): a way of doing or dealing with something <b>chaos</b> : complete disorder <b>extreme</b> : very strong <b>havoc</b> : destruction <b>hurricane</b> : an intense tropical storm <b>restore</b> : to return to the way something was before
<b>Materials and Preparation</b>	See Stations to review the Mid-Unit Assessment guidance. <ul style="list-style-type: none"> <li>● “Hurricanes” informational text, copy for each child</li> <li>● dark colored marker</li> <li>● chart paper, two pieces</li> </ul> Prepare the following chart, Slowing and Preventing Erosion, with at least half of the space left empty for work in Week 7.

	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%; background-color: #f0f0f0;"> <p style="text-align: center;"><b>Slowing and Preventing Erosion</b></p> <p>Approach:</p> <p>Reason:</p> <p>Example(s):</p> </div> <p style="text-align: center;">Prepare the week’s Weekly Question Chart.</p> <p>On the whiteboard, write:  According to this text, what does <u>restore</u> mean?</p> <ul style="list-style-type: none"> <li>A. put away</li> <li>B. return to the way something was before</li> <li>C. find a shell at the beach</li> </ul>
<p><b>Opening</b> 1 minute</p>	<p>Introduce the text.  <i>Today we are going to read a short informational text about hurricanes. You can read along with me.</i></p> <p>Distribute the texts, and set a purpose for reading.  <i>As we read, we’ll find the main topic and some details about hurricanes. We will also explain some important vocabulary about the topic.</i></p>
<p><b>Text and Discussion</b> 7 minutes</p> <p>paragraph 1</p>	<p>Chorally read paragraph one.  <i>Turn to a partner. What are hurricanes? What do they do?</i></p> <p>After children turn and talk, reinforce and clarify understandings.  <i>Hurricanes are extreme weather events made up of wind and rain. An <b>extreme</b> weather event is a time when the weather is very wild, out of the ordinary, and can <b>wreak havoc</b>, or be destructive. Hurricanes can cause fast erosion, damaging the land and parts of communities.</i></p>
<p>paragraphs 2 and 3</p>	<p>Echo read paragraphs 2 and 3.  <i>According to this text, what does “restore” mean?</i></p> <p>Refer to the whiteboard and read each choice slowly.</p> <ul style="list-style-type: none"> <li>A. put away</li> <li>B. return to the way something was before</li> </ul>

	<p><i>C. find a shell at the beach</i></p> <p>Discuss what language in the text helped determine the correct answer. [For example: rebuild, replace, have been destroyed]</p>
<p><b>Slowing and Preventing Erosion Chart</b> 4 minutes</p>	<p>Introduce a new Slowing and Preventing Erosion chart.</p> <p><i>Planting is an approach to slowing or preventing erosion. How does that work? Plants’ roots keep soil in place.</i></p> <p>Next to “Approach” write Planting.</p> <p><i>This next line is where we will write a specific example of planting. In a rain garden, the soil absorbs rain water so it doesn’t run to other areas where it causes damage. The rain soaks right into the ground.</i></p> <p>Under “Examples” write “planting rain gardens where there are hurricanes”.</p>
<p><b>Closing</b> 1 minute</p>	<p><i>Today we read about how the water and wind of a hurricane can affect a community. This week, we will think more about how wind can change land and why this is important.</i></p>
<p><b>Weekly Question Chart</b> 2 minutes</p>	<p>Introduce the Weekly Question Chart.</p> <p><i>Throughout this week, we will be asking and answering this question: How can wind change land, and why does it matter? We will record our ideas here.</i></p> <p><i>Today we learned that extreme winds from hurricanes can damage the land and communities through fast erosion. Let’s add this to our chart: Hurricanes can damage the land.</i></p> <p>Record.</p> <p><i>We can add more to our chart during the week.</i></p>
<p><b>Standards</b></p>	<p><b>R.5.2.b</b> Identify the main topic of a multi-paragraph text and the central ideas of specific paragraphs.</p> <p><b>R.7.2.b</b> Use provided resources to determine the meaning of words and phrases in a text.</p> <p><b>SL.1.2.c</b> Ask for clarification and further explanation as needed about the topics and texts under discussion.</p> <p><b>L.6.2.a</b> 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).</p>
<p><b>Ongoing assessment</b></p>	<p>Listen and take notes as children engage in conversations about content.</p> <p>Do they identify the main topic and supporting details?</p> <p>Can they define key words?</p>

**Notes**

A large empty rectangular box with a black border, intended for taking notes.

## Hurricanes

A hurricane is an extreme weather event—a swirling mass of wind, rain, thunder, and chaos! Hurricanes wreak havoc on coastlines and damage hundreds of miles inland. Violent winds can flip cars, sink boats, and rip houses apart. They can damage schools and other buildings. This extreme weather also causes fast erosion. More and more extreme weather events like hurricanes are happening around the world.



Helen S. Edwards Elementary School, New Orleans after a hurricane

After a hurricane, there are ways to rebuild. We can build stronger schools that are designed to survive storms.



Rain Garden

Communities can build rain gardens by changing areas of concrete into areas of soil with plants that can absorb rain.

We can also restore the land. Groups of people can plant trees to replace the trees that have been destroyed by the high winds of a hurricane. These trees slow and prevent erosion. Hurricanes can really cause fast erosion!



Planting trees

Written and compiled by Fay Ferency

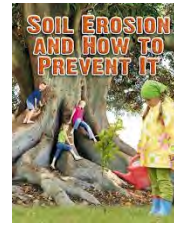
Adapted and with information and images from:

*Off to Class: Incredible and Unusual Schools Around the World*, Susan Hughes; [Hurricane](#); [Manage storm water around your home with a rain garden](#); [Plant A Million Trees – Common Ground Relief: Volunteering](#); [Wetlands Restoration, and Construction](#); [Green Infrastructure - NOLA Ready](#); <https://www.urbanconservancy.org/dana-eness-rain-garden>

Text Talk U2 W5 D1

Unit 2: The Forces of Wind and Water

WEEK 5 Day 2



**Text Talk**  
***Soil Erosion and How to Prevent It***, pages 12-13  
 and  
***How Do Wind and Water Change Earth?*** pages 6-9

<b>Big Idea</b>	Wind and water can change the shape of the land.
<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Content Objectives</b>	I can use details from two books to describe my understanding of erosion by wind. (R.4.2, R.11.2.c, R.11.2.d, 2-ESS2-4(MA))  With a partner, I can annotate and gather details to respond to a question. (SL.2.2.b)
<b>Language Objective</b>	I can share my thinking with a peer and support my ideas with specific details from the text. (SL.2.1b)
<b>SEL Objective</b>	I can communicate effectively and evaluate the text with my partner. (Relationship Skills, Decision Making)
<b>Vocabulary</b>	<b>boulder:</b> a large rock or stone <b>distance:</b> the amount of space between two things * <b>grind:</b> to crush or make by crushing into very small pieces or a powder * <b>particle:</b> a tiny amount or piece <b>region:</b> a separate part of land * <b>weathering:</b> changes produced by exposure to weather
<b>Materials and Preparation</b>	<ul style="list-style-type: none"> <li>● <i>Soil Erosion and How to Prevent It</i>, Natalie Hyde, for reference</li> <li>● <i>Soil Erosion and How to Prevent It</i> excerpt (pages 12-13) slides</li> <li>● projector and screen</li> <li>● <i>How Do Wind and Water Change Earth?</i> Natalie Hyde, for</li> </ul>

	<p>reference</p> <ul style="list-style-type: none"> <li>● <i>How Do Wind and Water Change Earth?</i> excerpt (pages 6-9), one copy for each pair of children</li> <li>● <i>How Do Wind and Water Change Earth?</i> Partner Read and Discussion sheet, one copy for each child</li> <li>● pencils</li> <li>● Annotations Chart, from Week 2, Day 3</li> </ul> <p>If children seem ready—if they use underlining and the question mark with some facility—add the exclamation point to the chart, as below.</p> <table border="1" data-bbox="565 621 1362 1020"> <thead> <tr> <th colspan="2">Annotations</th> </tr> <tr> <th>Mark</th> <th>What it means</th> </tr> </thead> <tbody> <tr> <td><u>Underline</u></td> <td>key details related to a question or idea</td> </tr> <tr> <td>?</td> <td>Something I don't understand or I'm wondering</td> </tr> <tr> <td>!</td> <td>a surprising event or idea</td> </tr> </tbody> </table> <p>Children will read with partners. Plan partners strategically, based on children's individual needs.</p>	Annotations		Mark	What it means	<u>Underline</u>	key details related to a question or idea	?	Something I don't understand or I'm wondering	!	a surprising event or idea
Annotations											
Mark	What it means										
<u>Underline</u>	key details related to a question or idea										
?	Something I don't understand or I'm wondering										
!	a surprising event or idea										
<p><b>Opening</b> 1 minute</p>	<p>Set a purpose for reading.</p> <p><i>Today we're going to think more about our weekly question: How can wind change land? We will look at two books together: Soil Erosion and How to Prevent It and How Do Wind and Water Change Earth? We will think about the information presented in each text and compare the most important points.</i></p>										
<p><b>Text and Discussion</b> <i>Soil Erosion and How to Prevent It</i> 8 minutes</p> <p>slide 3</p>	<p>Read the first paragraph, "Wind and Ice." <i>After reading this paragraph, what do you understand about how wind can change the land?</i></p> <p>Highlight words children have learned in previous lessons, such as "particle" (Week 3, Day 3 Text Talk; also a Week 5 Weekly Word).</p>										
<p>slide 4</p>	<p>Continue reading with the section "Blowing Away." Model thinking aloud. <i>The text reads, "It can carry its load over any landscape." This makes us think that what the wind picks up in a storm can be</i></p>										

	<p><i>carried anywhere. Dust storms caused by strong winds must be dangerous.</i></p>
slide 5	<p>Skip “Ice Rivers” and “You Dig It;” read the section “Waves of Sand.” <i>Where in the picture are the sand dunes?</i></p> <p><i>Talk to your partner about one way that wind can change the land. Describe it with details from the text.</i></p>
<p><i>How do Wind and Water Change Earth?</i> 22 minutes</p>	<p>Have children arrange themselves in reading pairs.</p> <p>Distribute one excerpt and two Partner Read and Discussion sheets to each pair. <i>We’re going to continue reading about wind and erosion with a different text. You and your partner have discussion questions to guide your thinking as you are reading together.</i></p> <p>As a whole group, read through the first page of the Partner Read and Discussion directions, including the guiding questions. (Children will use the second page in the next part of the lesson.)</p> <p>Refer to the Annotations chart. Remind children to annotate the excerpts by underlining key details, writing question marks next to things they wonder about or don’t understand, and writing exclamation points in the margins when something is really interesting or surprising (if children are ready for this step). Each child will annotate their own paper, sharing ideas with their partner.</p> <p>Preview tricky concepts and phrases, such as that warm air is lighter than cold air, and pieces of rock “wear away” at landforms.</p> <p>Send the children to read and discuss in pairs. Circulate to support reading, comprehension, and annotating.</p> <p>After about eighteen minutes, with children still seated with their partners, debrief as a group. Ask a few pairs to share some of their thinking using specific details from the text that support it. Allow time to answer questions and address misconceptions that arise.</p>
<p><b>Key Activity</b> 8 minutes</p>	<p>Partner discussion. Refer to the back side of the sheet and preview the final discussion questions. <i>How did each of these texts help you understand wind erosion?</i></p>

	<p><i>What was different about them?</i></p> <p>Send children to talk with their partners. Regroup and harvest ideas from the group.</p>
<p><b>Closing</b> 1 minute</p>	<p><i>Today we read about how wind erodes the land by looking at two books: Soil Erosion and How to Prevent It and How Do Wind and Water Change Earth? We considered the information presented in each text and compared the most important points. We did this by reading together and discussing with a partner.</i></p>
<p><b>Standards</b></p>	<p><b>R.4.2</b> Ask and answer questions about who, what, when, where, how and why.</p> <p><b>R.11.2.c</b> Explain how specific visuals contribute to and clarify the meaning of a text.</p> <p><b>R.11.2.d</b> Compare and contrast the information presented by two texts on the same topic.</p> <p><b>SL.1.2.b</b> Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p><b>2-ESS2-4(MA).</b> Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.</p> <p><b>SEL.</b> Relationship Skills <b>SEL.</b> Decision Making</p>
<p><b>Ongoing assessment</b></p>	<p>Circulate while children are working in pairs. Observe their facility and comfort with reading the text with a partner.</p> <p>During discussions, note how children have made meaning of the first text and how they build understanding and apply it to reading the second text.</p> <p>What explicit connections do children make between the two texts?</p> <p>What topic-specific vocabulary are they using appropriately and with facility?</p>

## Wind erosion

Air that moves is called wind. Wind can be gentle like a breeze. It can also be very strong in a storm. The Sun warms the air. Warm air is lighter than cold air. Warm air rises and cold air rushes in to replace it. This is what makes wind blow.



*You can feel the wind blowing on your face.*

## Moving Earth

Wind can pick up and move tiny bits of rock and soil. Sometimes it can carry these pieces long distances before dropping them. Moving material from one place to another is called erosion.



*Sand is made up of tiny pieces of rock. Sometimes wind moves sand into large piles. The piles of sand are known as **sand dunes**.*

## Wind weathering

The tiny bits of sand and rock carried by the wind can also blow against landforms. This can cause other pieces of rock to break off. When this happens, it is known as wind weathering. The blowing pieces of rock wear away at the landform like **sandpaper**.

Some rocks can be weathered until they are smooth and flat.



*Sandstorms happen when strong winds carry large amounts of sand in the air.*

8

## Shaped by the wind

The wind cannot lift bits of sand and rock very high. So, they weather huge rocks near the ground. This can create strangely shaped rocks. The rocks become narrow at the bottom, but stay wide at the top.



*Would you see more landforms weathered by wind in a cold, frozen desert or in a hot, sandy desert?  
Why?*



*Weathered rocks look a lot like mushrooms.*

9

## How Do Wind and Water Change Earth?



1. **Read** these questions with your partner:

- What causes wind to blow?
- How does wind cause erosion?
- What is wind weathering?
- Why does wind weathering cause rocks to form strange shapes?

2. **Read** pages 6-9 with your partner. Annotate as you read.

3. After reading, **talk** about what you learned about wind and erosion. Go back to the text to find details that support your thinking.

You might say:

I learned \_\_\_\_\_.

I learned this information from page \_\_\_\_\_, where it says \_\_\_\_\_.

I think \_\_\_\_\_, because in the text it said \_\_\_\_\_.

4. With your partner, **discuss** your ideas for these questions:

- How did each of the two texts we read today help you understand wind erosion?
- What was different about these two texts?



WEEK 5 Day 3

**Text Talk**  
***Erosion: Changing Earth's Surface***  
 pages 4, 16-17

<b>Big Ideas</b>	Wind and water can change the shape of the land. Changes happen over time.
<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Content Objectives</b>	In discussion and writing, I can explain wind erosion by using key details from a book and from photographs. (R.4.2, 2-ESS2-4(MA), W.1.2.b) I can ask questions about wind erosion. (R.4.2)
<b>Language Objectives</b>	I can refer to details from texts to discuss erosion by wind. (SL.2.2.a) I can determine the meaning of new words and phrases by using the information in a book and in photographs. (L.4)
<b>Vocabulary</b>	<p>* <b>batter</b>: to constantly beat against</p> <p><b>erosion</b>: when soil and landforms are worn away by water and wind, and the soil is carried to another place</p> <p><b>force</b>: power, energy or strength</p> <p><b>sandblasting</b>: painters use blasts of sand to remove paint and dirt from walls</p> <p><b>wear away</b>: over time, to lessen (*<b>wear</b>, Weeks 1 and 3)</p> <p><b>whipping</b>: a sudden force, like with a whip</p>
<b>Materials and Preparation</b>	<ul style="list-style-type: none"> <li>● <i>Erosion: Changing Earth's Surface</i>, Robin Koontz</li> <li>● Arches slides</li> <li>● projector and screen</li> <li>● Text Talk notebooks and pencils</li> </ul>

	<p>On the whiteboard, write:</p> <p>What do you notice in the photographs?</p> <p>How does wind cause erosion?</p> <p>What questions do you have about wind erosion?</p>
<p><b>Opening</b> 1 minute</p>	<p>Set a purpose for reading.</p> <p><i>For today’s Text Talk, we will think more about the weekly question: How can wind change the land, and why is it important? We will read a part of Erosion: Changing Earth’s Surface and look at some photographs. Using new words and phrases, we will explain wind erosion based on details from different texts.</i></p> <p><i>We will take some Note Breaks today to record both responses to the book and photos and questions you still have.</i></p> <p>Distribute pencils and notebooks.</p>
<p><b>Text and Discussion</b> 20 minutes</p> <p>page 4</p>	<p><i>First, let’s reread the first page of this book.</i></p> <p>Discuss the text’s definition of erosion.</p>
<p>Table of contents</p>	<p>Turn to the table of contents.</p> <p><i>We’ve discussed the importance of a table of contents. Remember that a table of contents lists headings to define sections of the book. This helps readers to organize their reading and thinking. We will read the section titled “Whipping Wind.” What page should I turn to?</i></p> <p>Model finding the topic in the contents and turning to the page.</p> <p>Read the title.</p> <p><i>What does “whipping” mean here?</i></p> <p>Add to the children’s definition as needed to clarify.</p> <p>Take a Note Break.</p> <p><i>Write and draw what you think about the phrase “whipping wind.”</i></p>
<p>page 16</p>	<p>Read the rest of the passage, defining “force,” “batter,” and “wear away.” Again, invite children to first offer their definitions, and then clarify as needed.</p>
<p>page 17</p>	<p>Show the illustration on page 17. Take a Note Break.</p> <p><i>Write and draw your idea about what this is and how it got there. Then, write a question you have about this image.</i></p>

	When children have finished writing, invite them to share their writing with a partner. Do not offer any additional information yet.
slides	<i>Let's take a look at three photographs from a place called Arches National Park, in the state of Utah. First, we'll look and think silently.</i> Allow time for children to look at and think about the slides one at a time.
page 16	Return to and read page 16 in <i>Erosion: Changing Earth's Surface</i> .
<b>Key Activity</b> 14 minutes	Show the slides again. Refer to the questions on the board. <i>This time as you look at the photographs, write your responses to these questions in your Text Talk notebooks:</i> <ul style="list-style-type: none"> <li>● <i>What do you notice in the photographs?</i></li> <li>● <i>How does wind cause erosion?</i></li> <li>● <i>What questions do you have about wind erosion?</i></li> </ul> Show the slides slowly, one at a time, cycling through as many times as helpful to children as they write in their notebooks.  After about seven minutes, facilitate a whole group discussion. Invite a few children to share ideas from their notebooks, and encourage children to use the "Me, too" signal and the established discussion prompts.
<b>Closing</b> 5 minutes	<i>We gained information from a text and from photographs. From these details in these texts, we were able to explain wind erosion using new vocabulary and phrases. What might we add to our Weekly Question Chart?</i> Add to the Weekly Question Chart as appropriate.
<b>Standards</b>	<b>R.4.2</b> Ask and answer questions about who, what, when, where, how, and why. <b>W.1.2.b</b> Gather information from provided sources and/or recall information from experiences in order to answer questions. <b>SL.2.2.a</b> Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. <b>L.4</b> 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. <b>2-ESS2-4(MA)</b> . Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.
<b>Ongoing assessment</b>	Collect or take note of children's responses in their Text Talk notebooks.

	<p>Are they looking carefully at and citing information from the photographs and the book?</p> <p>Are they answering and asking questions?</p> <p>Are they using new words and phrases accurately?</p> <p>Listen in to the discussions.</p> <p>How are children listening and responding to each other's ideas?</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Notes**

Unit 2: The Forces of Wind and Water

WEEK 5 Day 4

**Text Talk**  
**“Dunes” (poem)**

<b>Big Ideas</b>	Wind and water can change the shape of the land. People can change the shape of the land.
<b>Weekly Question</b>	How can wind change land, and why does it matter?
<b>Content Objectives</b>	I can use details in the language and structure of a poem to explain its meaning. (R.4.2, R.7.2.a) I can write a stanza of a poem using patterns of sounds, words, and phrases. (W.3.2) I can locate various landforms and bodies of water where there are dunes. (2.T2.1) Using words and images, I can describe how erosion by wind impacts how people interact with the environment. (2.T2.4, 2-ESS2-4(MA))
<b>Language Objective</b>	I can use context to understand the meaning of words and phrases in a poem. (L.4.2.a)
<b>SEL Objective</b>	I can show respect for my classmates as they read their poetry. (Social Awareness)
<b>Vocabulary</b>	<b>available:</b> easy or possible to get or use <b>ditchbank:</b> a heap of earth pulled from a drain or stream and placed next to it <b>dune:</b> large ridge of sand <b>firm:</b> hard or solid, not soft <b>gesture:</b> a movement that shows a feeling <b>mound:</b> small hill or heap of something <b>taking root:</b> starting to grow

**Materials and Preparation**

- chart paper  
Write out the poem “Dunes” on the chart paper, numbering each stanza as follows.

Dunes by A.R Ammons	
1	Taking root in windy sand is not an easy way to go about finding a place to stay.
2	A ditchbank or wood's-edge has firmer ground.
3	In a loose world though something can be started— a root touch water, a tip break sand—
4	Mounds from that can rise on held mounds, a gesture of building, keeping, a trapping into shape.
5	Firm ground is not available ground.

- “Dunes” poem printed, one copy per child
- Dunes slides
- projector and screen
- *I Know the River Loves Me*, Maya Christina Gonzalez  
Flag page 16.
- Erosion by wind stanza sheet

**Opening**  
1 minute

*Today’s text is a poem titled “Dunes,” written by A. R. Ammons. We will read it a few times. We’ll also look at some images to support our thinking.*

*Using details from the poem and images, we’ll explain how dunes form and what can be done to protect land by the ocean.*

*Afterwards, we’ll write some poetry of our own about erosion by wind!*

<p><b>Text and Discussion</b> 20 minutes</p>	<p>Read the poem aloud once through. <i>Turn to a partner. What do you picture in your mind? What do you think this poem is about?</i></p>
<p>slides 2-5</p>	<p>Show slide 2 and read it aloud. Check for comprehension. <i>What does this text explain?</i></p> <p><i>Now I'll show you two pictures of sand dunes and dune grass.</i> Show slides 3 and 4. <i>Thumbs up if this gives you a better idea of what dunes are.</i> <i>Turn to your partner. What is a dune? What does dune grass do?</i></p>
<p>read 2 stanza 1</p>	<p><i>Let's keep this text and these images in mind as we read the poem again.</i> Distribute copies of the poem.</p> <p>Chorally read stanza 1. <i>What is the setting of the poem? Why is it hard to find "a place to stay" in this setting?</i></p>
<p>stanza 2</p>	<p>Chorally read stanza 2. <i>A <b>ditchbank</b> is a heap of earth pulled from a drain or stream and placed next to it.</i> <i>What makes a woods' edge firmer than a sand dune?</i></p>
<p>stanza 3</p>	<p>Chorally read stanza 3. Check for comprehension. <i>Turn and talk. What is the "loose world" the poet A.R. Ammons is talking about? What is the root? What does it mean for a tip to break sand?</i></p>
<p>stanza 4-5</p>	<p>Chorally read stanza 4 and 5. pause to monitor how children make meaning of the language. <i>What are the mounds that rise? How are those mounds held?</i> Reinforce the meaning of "held mounds" as sand held in place by dune grass, emphasizing the importance of grass in maintaining dunes.</p>
<p>read 3</p>	<p><i>Let's read the poem together a third time all the way through.</i></p> <p><i>Now, look at the way the poem is written on the page. Does the way the words are arranged on the paper make you think of anything?</i></p>
<p>slides 3-7</p>	<p><i>Let's look at images of dunes and dune grass again.</i> Show slides 3-7. <i>Turn and talk. How do these images help us understand what A.R. Ammons communicates through his poem?</i></p>

	<p><i>How do you think the forces of wind and water impact the dunes that we've seen?</i></p> <p><i>How have people responded to the effects of wind and water here?</i></p> <p><i>People have planted dune grass to keep the sand dunes in place and protect the town from strong ocean waves during storms.</i></p>
<p>slides 6-11</p>	<p>Show slides 6-11 of dunes from different parts of the world. Use the following questions to facilitate a brief discussion.</p> <p><i>How are these dunes similar to the dunes in Maine and those described in the poem?</i></p> <p><i>How are these dunes different from the dunes in Maine and those described in the poem?</i></p> <p><i>How might wind affect small dunes, compared to how it might affect large dunes?</i></p>
<p><b>Key Discussion and Activity</b> 18 minutes</p>	<p><i>Today, you will each write a stanza, or a section of a poem, about erosion by wind. A stanza can be just a few lines.</i></p> <p>Open <i>I Know the River Loves Me</i> to page 16.</p> <p><i>Each section in I Know the River Loves Me was a stanza. Here's an example from that poem:</i></p> <p style="padding-left: 40px;"><i>I watch her change like me. In the winter, she is low and quiet. In the summer, she is full and loud.</i></p> <p><i>The poet, Maya Christina Gonzalez, does not use rhyming words in this poem. Sometimes poets use rhyming words. What might be a rhyme for sand that is relevant to erosion? [land, hand]</i></p> <p><i>Sometimes poets also use rhythm. What is rhythm? [beat, movement]</i></p> <p><i>In "Dunes," a nice example of rhythm is "a root touch water/ a tip break sand." Thumbs up if you can hear the rhythm. Let's clap it out together.</i></p> <p>Read the lines again, clapping the rhythm.</p> <p><i>When you write your stanza about erosion by wind, you could write about dunes, but you don't have to. You can use rhyme or rhythm, if you like. Try to write about four lines, as in the I Know the River Loves Me stanza.</i></p> <p><i>Think for a moment what you might write about, and then share your idea with your partner.</i></p>

	<p>Send children to write. Circulate to support coming up with ideas and generating language.</p> <p>Regroup. Invite a few children to share their stanzas in progress. Allow for further time to work at the Writing Station for the remainder of the week.</p>
<p><b>Closing</b> 1 minute</p>	<p><i>Today we looked at a poem and some photographs to think about what sand dunes are and how we can protect the land in sandy places. Now you have started constructing your own stanzas about erosion by wind!</i></p>
<p><b>Standards</b></p>	<p><b>R.4.2</b> Ask and answer questions about who, what, when, where, how and why.</p> <p><b>R.7.2.a</b> Describe how words and phrases supply rhythm and meaning in a text.</p> <p><b>W.3.2</b> Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p><b>L.4.2.a</b> Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p><b>2.T2.1.</b> 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).</p> <p><b>2.T2.4.</b> Explain and describe human interaction with the physical world (the environment).</p> <p><b>2-ESS2-4(MA).</b> Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.</p> <p><b>SEL.</b> Social Awareness</p>
<p><b>Ongoing assessment</b></p>	<p>Notice how children respond to the poetic language and images. Pay attention to the connections they make to content.</p> <p>How do children explain what they are reading and observing? Do they describe what a sand dune is? Can they explain how land is protected by planting on sand dunes?</p> <p>Collect children’s writing and make notes about how they express their understanding about erosion by wind through the vehicle of a poem. Use these notes on poem writing to inform planning for the autobiographical poem unit in Unit 3.</p>

# Dunes

By A. R. Ammons

1	Taking root in windy sand is not an easy way to go about finding a place to stay.
2	A ditchbank or wood's-edge has firmer ground.
3	In a loose world though something can be started— a root touch water, a tip break sand—
4	Mounds from that can rise on held mounds, a gesture of building, keeping, a trapping into shape.
5	Firm ground is not available ground.

Writing Response: "Dunes," A. R. Ammons

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Write and illustrate a stanza of a poem about erosion by wind. Use some vocabulary from the unit so far. Some examples of vocabulary are below.

<b>dune</b>	<b>force</b>	<b>grind</b>	<b>weathering</b>	<b>whipping</b>
-------------	--------------	--------------	-------------------	-----------------

---

---

---

---

Unit 2: The Forces of Wind and Water



WEEK 5 Day 5

**Text Talk**  
**Moving Away from the Edge (slides) and**  
**Unit Question Chart**

<b>Big Ideas</b>	Wind and water can change the shape of the land. The changing shape of the land impacts people. Changes happen over time.
<b>Weekly Question</b>	How can wind change land, and why does it matter? (Preview to Week 6: How do people interact with the land?)
<b>Content Objectives</b>	I can determine some main topics and key details in a text about erosion. (R.4.2, R.5.2.b)  I can describe how people responded to the erosion of the land surrounding Gay Head Lighthouse. (2.T2.4)  I can evaluate approaches to erosion. (2-ESS2-1)
<b>Language Objective</b>	I can state reasons for responding to erosion in particular ways. (SL.3.2.a)
<b>SEL Objective</b>	I can reflect on the unit so far and evaluate unit ideas with my classmates. (Relationship Skills, Decision Making)
<b>Vocabulary</b>	<b>beam:</b> a long and straight piece of metal <b>construct:</b> to build <b>edge:</b> the part where an object or area begins or ends <b>lighthouse:</b> a tower with a powerful light that is built on or near the shore to guide ships away from danger <b>path:</b> a cleared way to walk <b>* warn:</b> to tell of a possible danger, to alert

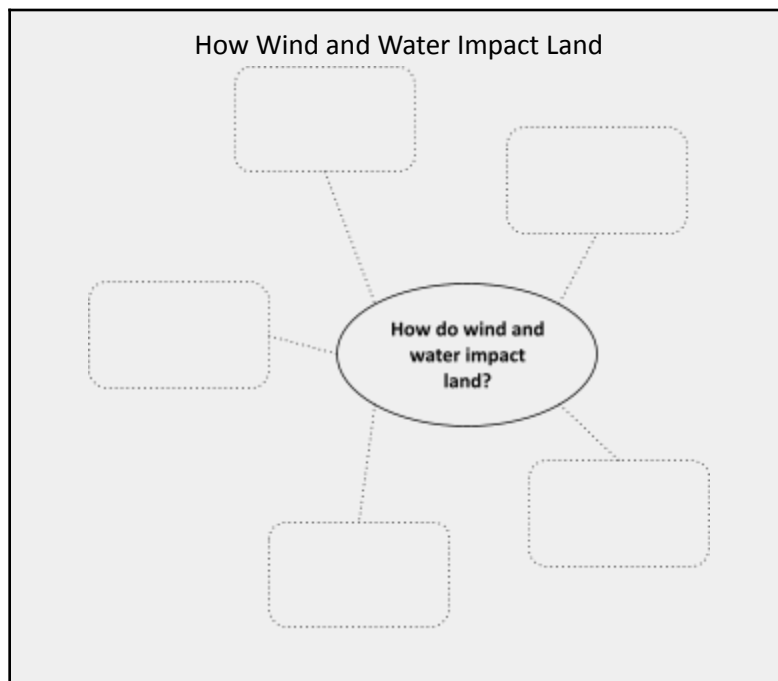
**Materials and Preparation**

- Moving Away from the Edge slides
- projector and screen
- Moving Away from the Edge text, copy for each child

Children will read the text with strategically-assigned partners.

Review the Unit Question Chart routine in the Introduction, Part 2: Components.

- Weekly Question charts from Weeks 1-5  
Review the charts and notice particularly important ideas and themes that have surfaced. Look especially for ideas that connect to and build upon each other over the course of the weeks. Consider categories by which ideas might be grouped, such as The Force of Rain on Land or How Wind Changes Land (but do not write these on the chart).  
Before the lesson, post the Weekly Question charts so that they are all visible for the whole group.
- chart paper  
Create the How Wind and Water Impact Land chart. In the center of the paper, write the unit question: How do wind and water impact land?



Note: the number of boxes will be determined by the conversation with the children. There are six big ideas in the unit, and the boxes might or might not correspond to these. Plan for about 5-8 boxes on the chart.

<p><b>Opening</b> 4 minutes</p>	<p>Show slide 2.</p> <p><i>Before we begin today, it's important to understand what a <b>lighthouse</b> is. Turn and talk with a partner about anything you know about lighthouses.</i></p> <p>Harvest a few ideas from the group, and emphasize those that include a correct definition. Note that a lighthouse is important because it warns or guides people in boats and ships in locating, or finding, the edge of the land. This keeps people and boats safe.</p>
<p><b>Text and Discussion</b> 16 minutes</p>	<p>Distribute the Moving Away from the Edge text sheets.</p> <p><i>Read just the first two paragraphs with your partner. Talk with your partner. What did you learn about erosion at the edge of the sea?</i></p>
<p>slide 3</p>	<p>Pause the partner reading to look at slide 3. Children can look at the same photo on their sheets as well.</p> <p><i>Sometimes, this happens: This is a photo from the coast of the US, in a place called Plum Island. What do you notice in this photo?</i></p> <p><i>Read the last paragraph together. What was this paragraph mostly about?</i></p> <p><i>Turn and talk to a partner about what it would be like to live next to the sea... And what decisions you might make with your knowledge about erosion.</i></p> <p>Harvest a few ideas in the whole group. Children may express judgments about people who build close to the water. Steer the conversation towards decisions people make, and away from personal judgments on people who make them.</p>
<p>slide 4</p>	<p><i>Let's focus on the slides now.</i></p> <p><i>We began talking about lighthouses. Of course, a lighthouse <u>must</u> be built close to the edge of the land in order to do its job: to warn ships at sea that they are close to the land.</i></p> <p><i>This lighthouse is on an island called Martha's Vineyard, which is a part of the state of Massachusetts. The town where the lighthouse stands is called Aquinnah, so named by the Wampanoag people</i></p>

	<i>who lived there for hundreds of years.</i>
slide 5	<i>This photograph was taken in 1958, about 65 years ago. Looking at this photograph, based on what we know about erosion, what might you predict about the land where the lighthouse stands?</i>
slide 6	<i>You are right: because of the eroding cliffs, this lighthouse was standing very close to the water. The lighthouse keeper—the person who keeps everything working and the light shining—worried that the lighthouse was going to tumble into the water if it wasn’t moved.</i>  <i>They did not have a plan to slow or prevent erosion, so, as you can see here, they moved the lighthouse back in 2015!</i>
slide 7 - 8	<i>The lighthouse was moved back from the edge of the cliff—very slowly, very carefully, by experts—by sliding it along two metal beams.</i>
slide 9	<i>Look how far back they moved the lighthouse!</i>
slide 10	<i>Let’s read the caption for this photo.</i>  Spend some time unpacking the caption, adding emphasis: <i>The building, which weighs in at 400 tons, traveled along metal I-beams on <b>a path chosen for both its elevation and for the stability of the clay.</b> Project managers said they hope the new location will be stable for another 150 years.</i>  Previous texts, science lessons, and investigations at the Landforms and Water Table have highlighted how the makeup of the earth impacts erosion (in this case, sand and clay). Remind children of these understandings as the discussion unfolds. <i>How stable do you think sand and clay are for the foundation of the lighthouse?</i>
<b>Key Discussion</b> 9 minutes	Think, Pair, Share. <i>What might happen to this lighthouse in another 150 years?</i> Harvest children’s ideas.
<b>Closing</b> 1 minute	<i>Today we read and discussed images to find out what might happen if people build structures close to the shore. We will continue to think about how the changing land impacts people, and what people can do about it. We’ll also keep talking about what people <u>should</u> do to respond to the forces of water and wind on the land.</i>

<p><b>Weekly Question Chart</b> 2 minutes</p>	<p>Read the Week 5 Weekly Question Chart. Quickly note 1-2 essential ideas.</p>
<p><b>Unit Question Chart</b> 8 minutes</p>	<p><i>We've been thinking about the forces of wind and water on land for a few weeks now. Let's look back at some of the ideas we've had so far and see how we can make sense of them all together.</i></p> <p>Read the highlighted ideas on each Weekly Question Chart.</p> <p><i>Today we are going to work on a new chart to help us think about all our ideas about the forces of wind and water on land. Let's see if we can find patterns in our thinking and if they can help us answer a big question: How do wind and water impact land?</i></p> <p>Model synthesizing ideas. Refer to ideas that have been marked with similar colors.</p> <p><i>These three ideas are all about how the ocean wears away at the shore. That makes me think: Oceans can erode the shore and change the way it looks. I am going to write that sentence in a box on our chart.</i></p> <p>On the How Wind and Water Impact Land chart, draw a box, write the sentence, and draw a line connecting the box to the question in the center.</p> <p>With children, create 4-7 more sentences that synthesize different ideas from the Weekly Question Charts. Record each sentence in a separate box on the How Do Wind and Water Impact Lands chart.</p> <p>This chart will be added to in Week 8.</p>
<p><b>Standards</b></p>	<p><b>R.4.2</b> Ask and answer questions about who, what, when, where, how and why.</p> <p><b>R.5.2.b</b> Identify the main topic of a multi-paragraph text and the central ideas of specific paragraphs.</p> <p><b>SL.3.2.a</b> Describe people, places, and things, tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p> <p><b>2.T2.4.</b> Explain and describe human interaction with the physical world (the environment).</p> <p><b>2-ESS2-1.</b> Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p> <p><b>SEL.</b> Relationship Skills</p> <p><b>SEL.</b> Decision Making</p>

<b>Ongoing assessment</b>	During this discussion, take note of how children respond to the particular problem of erosion related to buildings at the shoreline. Do they differentiate between kinds of buildings? What questions do they ask? How do children describe the ways people responded to the changing environment around the lighthouse? Do children take a strong stance about approaches to erosion? If so, do they use evidence to support their thinking? Observe the Unit question chart. How are children synthesizing ideas about the forces of wind and water?
---------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Notes</b>
--------------

## Moving Away from the Edge

The places where the land and water meet are slowly changing over time. Sometimes people construct buildings and houses very close to the edge of the sea because they love to be near the ocean, to look out at the wide water and sky, and to listen to the waves.

Sometimes when people build very close to the sea, the buildings can get destroyed by erosion!



What do you notice in this photo?

Erosion happens over long periods of time. Maybe the people who built houses like this one weren't thinking far enough ahead about erosion and what could happen. Over time, as waves have crashed against the shore, the land under the houses has eroded. Then, the force of the waves from a big storm completely took the land out from under these structures.

## Unit 2: The Forces of Wind and Water

### WEEK 5

### Stations

Stations overview table follows information for the Mid-Unit Assessment.

Mid-Unit Assessment
<p>Materials and Preparation</p> <ul style="list-style-type: none"><li>● Mid-Unit Assessment slide</li><li>● projector and screen</li><li>● Mid-Unit Assessment text and response sheet, one copy for each child</li><li>● POP! Answering Multiple Choice Questions chart and/or half-sheets</li><li>● Mid-Unit Assessment rubric</li></ul> <p>In advance of the week, if useful, plan a schedule for each child to work at the Writing Station to complete the assessment.</p>
<p>Following an abbreviated Text Talk lesson (Day 1), teachers present the Mid-Unit Assessment to the whole group. The class reads, thinks, and talks together about an adapted excerpt from “Erosion! The Ever-changing Earth” by Robin Koontz. After the assessment is introduced, children continue to work on it independently at the Writing Station.</p> <p>Arrange the children in spaces around the classroom where they can comfortably write and see the projected slide. Distribute the assessment. Show the image on the slide, and read the excerpt aloud so children can hear the text read fluently. Then have children read chorally or with a partner.</p> <p><b>Question 1</b></p> <p>For Question 1, children use the photograph and text to determine the meaning of a word.</p> <p>Read the question, including the boxed text. Revisit the POP! Strategy for answering multiple choice questions.</p> <p><i>This question has several possible answers for you to choose from. To choose your answer, do these things:</i></p> <ul style="list-style-type: none"><li>● <i>Reread the question.</i></li><li>● <i>Cross off any answer choices that don’t make sense.</i></li><li>● <i>Go back to the text to find evidence.</i></li><li>● <i>Select the answer that matches your thinking.</i></li></ul>

Direct children to work independently to answer Question 1. Circulate to ensure that all children have answered the question before moving to Question 2.

**Question 2.**

For Question 2, children use the photograph and what they have learned about weather and erosion from the unit and the excerpt to write about what caused the rock formation. They include specific vocabulary words from the unit in their writing.

Read the question aloud.

*This question asks you to look at the photograph and think about what you have learned about weathering and erosion both from the text and from other experiences in this study. You need to write your response carefully to include at least three of the vocabulary words listed here. As you include each word, cross it off so you can count and double check that you included at least three.*

Read the question aloud a second time.

*Turn and talk with your partner: what are the things you need to consider when answering this question?*

Point out the space for drawing a picture to accompany writing.

Get children started, and then let them know that they can finish the assessment at the Writing Station this week.

Stations overview page follows.

## WEEK 5

## Stations

Station	Activities	Materials
	Guided Independent Reading	<ul style="list-style-type: none"> <li>individual book bags</li> </ul>
Teacher groups: strategic small group instruction		
<b>Listening &amp; Speaking</b>	Listen and Respond	<ul style="list-style-type: none"> <li>audio recording and technology</li> <li><i>I Know the River Loves Me</i> book</li> <li>conversation prompts</li> </ul>
<b>Science Literacy</b>	How can wind change the shape of land?	<ul style="list-style-type: none"> <li>Unit 2 Science and Engineering packets</li> <li>colored pencils</li> </ul>
<b>Vocabulary</b>	Choose 3!	<ul style="list-style-type: none"> <li><b>Week 4</b> Weekly Words cards</li> <li>Recording sheets</li> <li>Choose 3! menu</li> </ul>
	Talk About It: Describe what is happening on this open field. Why is this important?	<ul style="list-style-type: none"> <li><b>Week 4</b> and <b>Week 5</b> Weekly Words cards</li> <li>Week 5 image, 2 copies cut apart</li> <li>Week 5 sheets</li> </ul>
<b>Word Work</b> (align skills with literacy program)	Marking short and long vowels and syllables	<ul style="list-style-type: none"> <li>Week 5 Read It, Write It, Mark It sheets</li> <li>activity directions card</li> </ul>
<b>Writing</b>	Mid-Unit Assessment, introduced on Day 1	<ul style="list-style-type: none"> <li>Mid-Unit Assessment sheets with text</li> <li>POP! Answering Multiple Choice Questions chart and/or half-sheets</li> </ul>
	Continued work from Text Talk Day 4: writing about erosion by wind	<ul style="list-style-type: none"> <li>"Dunes"</li> <li>Writing Station Response sheet</li> </ul>

*I Know the River Loves Me* conversation prompts: Cut apart and provide with the physical text and audio recording.

**Page 15:**

How do the illustrations help you understand the ways the narrator interacts with the river?

*I Know the River Loves Me*

**Page 18:**

What are some ways the river and the narrator take care of each other?

*I Know the River Loves Me*

**After reading:**

Why does the narrator repeat, “I know the river loves me” at the beginning and end of the poem?

*I Know the River Loves Me*

I agree with you. I also think \_\_\_\_.

Why do you think that?

I don't think I agree with you because \_\_\_\_.

## Talk About It



<http://www.omafra.gov.on.ca/english/engineer/facts/12-053.htm>

---



<http://www.omafra.gov.on.ca/english/engineer/facts/12-053.htm>

**Talk About It**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Describe what is happening on this open field.  
Why is this important?

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: \_\_\_\_\_

Read It	Write It	Mark It
---------	----------	---------

Read the word. Write the word.

1. Mark a straight line above the long vowel.
2. Mark a brevet above the short vowel.
3. Underline each syllable. Write "o" below the line for open and "c" for closed syllables.

<p>b a s i c</p> <p>o c</p>	<hr/> <hr/> <hr/>
<p>solo</p>	<hr/> <hr/> <hr/>
<p>relax</p>	<hr/> <hr/> <hr/>
<p>angry</p>	<hr/> <hr/> <hr/>
<p>dizzy</p>	<hr/> <hr/> <hr/>

pretend	<hr/> <hr/> <hr/>
fluffy	<hr/> <hr/> <hr/>
retire	<hr/> <hr/> <hr/>
tulip	<hr/> <hr/> <hr/>
sixty	<hr/> <hr/> <hr/>
	<hr/> <hr/> <hr/>

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

Excerpt from ***Erosion! The Ever-changing Earth***  
By Robin Koontz



Even mountains, the toughest, tallest landforms, can change over time. There are two forces that work together to change landforms: weathering is the breakdown of land into smaller pieces, and erosion is the movement of the pieces removed by weathering.

Weathering is **caused** by wind, water, heat and cold. Erosion is caused by the forces of wind, water, and gravity. Weathering and erosion typically happen over hundreds, thousands, or even millions of years. Boulders can become sand, and mountains can be reduced to smaller hills. The pieces of land move downhill, creating new landforms. It's a never-ending process.

1. Use the photograph and the text below to determine the meaning of “breakdown.”

There are two forces that work together to change landforms: weathering is the **breakdown** of land into smaller pieces, and erosion is the movement of the pieces removed by weathering.

- a. when something stops working
  - b. damage due to natural forces
  - c. rain or snow
  - d. a strong and powerful effect
2. Look at the photograph. Based on what you have learned about weathering and erosion, what may have caused these rocks to form? Use **at least three** of the vocabulary words below in your response.

<b>wear</b>	<b>carve</b>	<b>layer</b>	<b>steep</b>	<b>cause</b>	<b>impact</b>
-------------	--------------	--------------	--------------	--------------	---------------

---

---

---

---

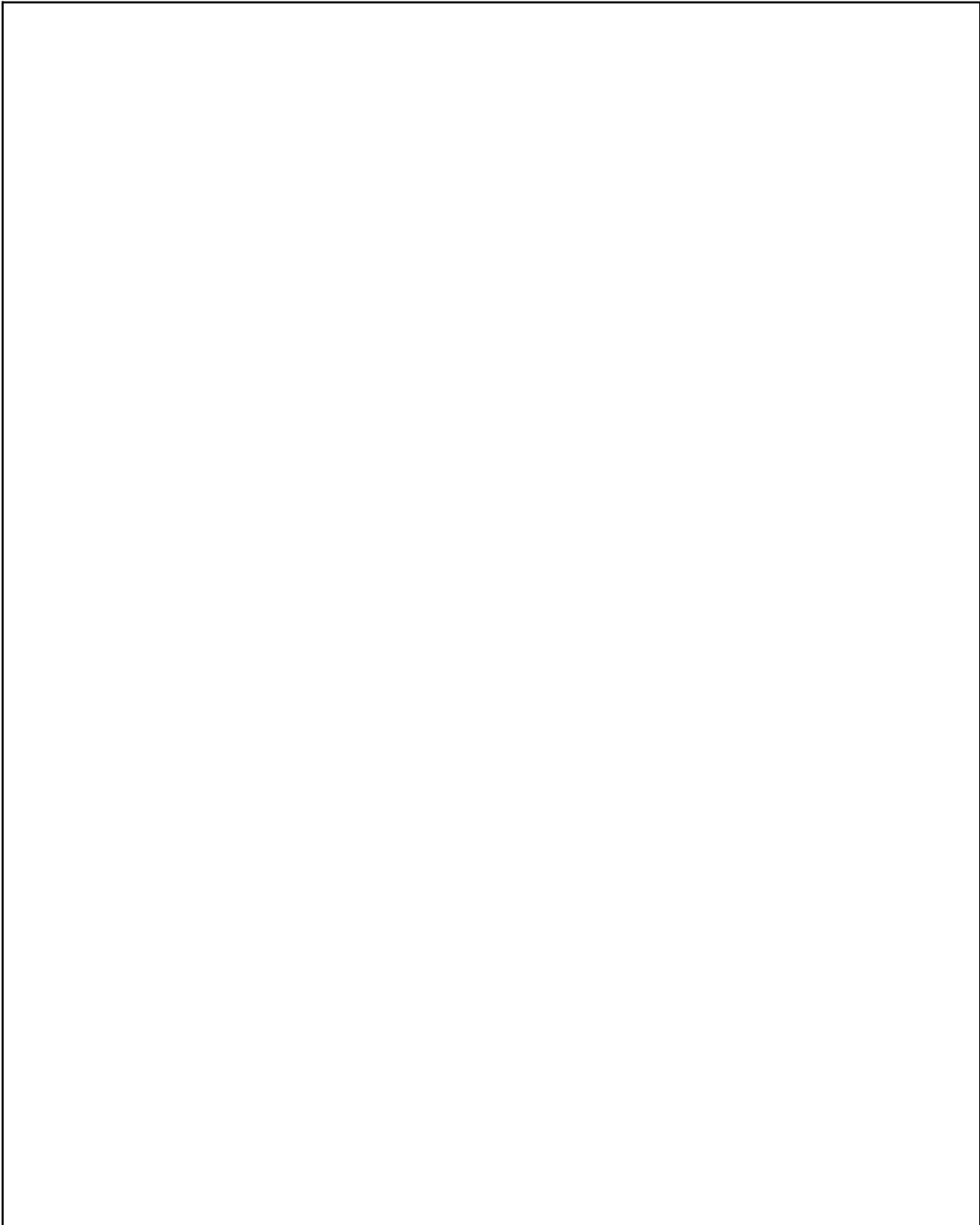
---

---

---

---

Add an illustration to show more about your ideas.



## Unit 2 Mid-Unit Assessment Responses

### Question 1.

Use the photograph and the text below to determine the meaning of “breakdown.” (R.11.2.a, R.11.2.b, L.4.2.c, L.4.2.a)

There are two forces that work together to change landforms: weathering is the **breakdown** of land into smaller pieces, and erosion is the movement of the pieces removed by weathering.

- a. when something stops working
- b. damage due to natural forces**
- c. rain or snow
- d. a strong and powerful effect

In addition to using the photograph and text to make meaning of the word “breakdown,” children can also use the compound word knowledge they are developing through *Foundations*.

### Question 2.

Look at the photograph. Based on what you have learned about weathering and erosion, what may have caused these rocks to form? Use **at least three** of the vocabulary words below in your response.

wear	carve	layer	steep	carve	impact
------	-------	-------	-------	-------	--------

Children need to use at least three of the provided vocabulary words appropriately in their response. For example:

The rocks in this photograph have been worn down by weathering and erosion. The impact of these forces has caused the steep drops and layers in the rocks to form.

## Mid-Unit Assessment Rubric: Unit 2

Text: Excerpt from *Erosion! The Ever-changing Earth*,  
Robin Koontz (Lexile 610)

Child's name:

Date:

### Prompt

**Question 2.** Look at the photograph. Based on what you have learned about weathering and erosion, what may have caused these rocks to form? Use **at least three** of the vocabulary words below in your response. (RI.2.4, RI.2.7)

### Unit 2 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.

1 = Shows little evidence of meeting the standard; 2 = Shows some evidence of meeting the standard; 3 = Meets the standard			
	1	2	3
Describes the photograph using vocabulary words. (R.7.2.b, R.11.2.c, R.11.2.d) (Question 2)	Does not demonstrate understanding of the photograph using any vocabulary words or does not use vocabulary words appropriately.	Demonstrates partial understanding of the photograph and uses one to two vocabulary words appropriately.	Demonstrates understanding of the photograph using at least three vocabulary words appropriately.
Recalls information and gathers information from provided sources to respond to a question. (W.1.2.b) (Question 2)	Responds to the prompt without recalling information from previous or current text.	Uses one key detail from recalled information or information from the text. The reference may be vague or unclear.	Includes at least two details from recalled information or information from the text.
Demonstrates conceptual understanding and knowledge about the topic. (overall)	Does not align response to the unit's big ideas.	Somewhat aligns response to the unit's big ideas.	Demonstrates conceptual understanding and knowledge about the unit's big ideas.

Mid-Unit Assessment U2 W5

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
<b>Sentence Complexity</b> L.2.3.f	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.
<b>Capitalization</b> 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.
<b>Punctuation</b> 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.
<b>Spelling</b> L.2.2.d L.2.2.e	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 (sound walls, personal dictionaries, etc.).	Generalizes learned spelling patterns and shows evidence of using reference materials (sound walls, personal dictionaries, etc.) when writing words.

## Unit 2: The Forces of Wind and Water

### WEEK 5 Lesson 1

#### Science and Engineering: Earth's Systems

##### The Forces of Wind on Land

Notes: This lesson requires significant set up of materials. This investigation is best conducted in pairs, but it can also work in small groups (no more than four children).

<b>S &amp; E Big Ideas</b>	Wind and water can change the shape of the land. Changes happen over time.
<b>S &amp; E Guiding Question</b>	What resources can we use to understand changes in the shape of the land?
<b>Content Objectives</b>	I can conduct an investigation to model and observe wind's effects on land. (Practice 2, Science 2-ESS2-4(MA)) I can write and draw what I observed during an investigation about the force of wind on Earth's materials. (Practice 4, 2-ESS2-2) I can draw and write about the effects of wind on land, based on my observations. (W.3.2)
<b>Language Objective</b>	I can discuss my observations with my peers while we conduct an investigation by listening and adding onto what they say. (SL.1.2.b)
<b>Vocabulary</b>	<b>topsoil:</b> the layer of soil in which plants grow
<b>Materials and Preparation</b>	For each pair, assemble: <ul style="list-style-type: none"><li>● aluminum trays (without holes), two</li><li>● topsoil, one cup</li><li>● sand, one cup</li><li>● spoons, two</li><li>● container of water</li></ul> Prepare two trays per pair of children, one with sand and the other with topsoil. Make sure that the soil and sand are evenly damp (not wet). Spread each material over about half of the bottom of its tray. For additional help with setup, watch the Tray Preparation <a href="#">video</a> . It may be useful to have several children help set up the trays before the lesson.

	<ul style="list-style-type: none"> <li>● straws, one for each child and one for modeling</li> <li>● tablecloths (optional, for controlling mess)</li> <li>● writing tools</li> <li>● Science and Engineering packets</li> <li>● goggles, one pair for each child, if available</li> </ul>
<p><b>Opening</b> 10 minutes</p>	<p><i>Over the last two weeks we investigated how water affected different types of soil: sand and topsoil. What did we learn? [water eroded the sand quickly; the topsoil did not erode as quickly and produced runoff; slope impacted erosion]</i></p> <p><i>Today we will explore how wind affects the shape of the land. What do you think will happen to sand and topsoil when wind blows on them? What makes you say that?</i></p> <p>Show the appropriate page in a Science and Engineering packet. <i>Today you will draw and write your observations for two investigations, one with sand and one with topsoil.</i></p> <p>Talk through the pages, as needed.</p> <p><i>In this investigation, you will blow through a straw to represent a soft wind.</i></p> <p>Model blowing through the straw softly.</p> <p><i>We're all going to conduct this investigation together, step by step.</i></p> <p>Send the children to the tables with their writing tools and Science and Engineering packets.</p>
<p><b>Investigation</b> 20 minutes</p>	<p>Guide the children through the investigation, using the steps below.</p> <ol style="list-style-type: none"> <li>1. Predict <i>Turn and talk to your partner. What do you think will happen when you blow softly on the sand? Record your prediction.</i></li> <li>2. Investigate [Put on goggles.] <i>Both partners, please stand on the same side of the tray, so that you don't get sand in your eyes.</i> <i>Sand Blower, place the straw on the edge of the sand tray and blow air <u>softly</u> through the straw several times.</i></li> <li>3. Observe and talk <i>Observe what is happening and talk to your partner.</i></li> </ol>

	<p>4. Record <i>Draw and write your observations.</i></p> <p>Repeat Steps 1-4, this time with the topsoil.</p> <p>5. Clean up <i>When you finish, label your trays with your names. Leave the sand and topsoil in place and put the trays [in the designated area].</i></p> <p>Throughout the investigation, circulate to support and observe children’s work.</p>
<b>Discussion</b>	<i>Discussion about this experience will happen in Lesson 2.</i>
<b>Closing</b>	<p>Refer to the self-assessment questions at the bottom of the page. <i>Take a moment to reflect on the investigation. Turn to your partner and ask yourself these questions:</i> <i>Did we use our five senses to gather information about an object or something that happened?</i> <i>Did we draw or write what we thought or observed?</i></p> <p><i>Today you investigated to see how wind affects sand and topsoil. Tomorrow we will discuss your observations.</i></p> <p>Look over and choose several trays with different outcomes. Set these aside, without disturbing the Earth materials, for the Lesson 2 discussion.</p>
<b>Standards and Practices</b>	<p><b>SL.1.2.b</b> Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p><b>W.3.2</b> Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p><b>2-ESS2-1</b> Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p>
<b>Ongoing assessment</b>	<p>Observe and take notes as the children do the investigation. What do the children observe? How do they record their observations? What do children notice about the effects of wind on sand and topsoil, compared to the effects of water on each?</p> <p>Review the children’s packets in preparation for the next day’s discussion.</p>

## Unit 2: The Forces of Wind and Water

### WEEK 5 Lesson 2

#### Science and Engineering: Earth's Systems

##### The Forces of Wind on Land

<b>S &amp; E Big Ideas</b>	Wind and water can change the shape of the land. Changes happen over time.
<b>S &amp; E Guiding Question</b>	What resources can we use to understand changes in the shape of the land?
<b>Content Objectives</b>	I can compare the effects of water and wind on land. (2-ESS2-4(MA)) I can find patterns and connections about my observations of investigations about water and wind on Earth materials. (Practice 4, 2-ESS2-4)
<b>Language Objective</b>	I can describe the way wind affects the shape of land. (SL.2.2.a)
<b>Vocabulary</b>	<b>dune:</b> a ridge of sand <b>Earth materials:</b> the natural materials found on Earth, including minerals, rocks, soil, and water <b>erosion:</b> the process by which the surface of the earth is worn away by the action of water, glaciers, winds, waves, etc. <b>topsoil:</b> the layer of soil in which plants grow
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>● Science and Engineering packets</li><li>● Discussion Prompts chart</li><li>● trays selected at the close of Lesson 1</li></ul>
<b>Opening</b> 1 minute	<i>Today you will use your observations from yesterday's investigation to make several comparisons.</i>
<b>Discussion</b> 24 minutes	Distribute Science and Engineering packets. <i>With your partner, review your notes from yesterday. Talk for a minute about your observations, and mark anything that is particularly important.</i>

	<p>Allow the children several minutes to reread, discuss, and mark their notes.</p> <p>Facilitate a brief class discussion. Encourage children to refer to their notes and, as appropriate, to the trays. As they share their findings, encourage children to use established classroom discussion prompts.</p> <p>Focus on the wind investigation.  <i>Think about the different Earth materials you used in your investigation. What was the same and different about the effects of wind on sand and on topsoil?</i></p> <p>Compare the effects of water and wind on the Earth materials.  <i>We investigated sand and topsoil in different ways: with water and with wind. What was the same and different about how water and wind shaped the sand?</i></p> <p><i>What was the same and different about how water and wind shaped the topsoil?</i></p> <p><i>What patterns and connections can we identify in our data about the effects of wind and water on earth materials?</i>  <i>What conclusions can we make?</i>  <i>How do you think this affects humans and animals?</i></p>
<p><b>Closing</b> 5 minutes</p>	<p>Refer to the final self-assessment question at the bottom of the page.  <i>Take a moment to reflect on today’s discussion. Ask yourself this question: Did I share science and engineering ideas by talking, writing, drawing, or building something?</i></p> <p><i>Over the last three weeks we have conducted investigations to understand how water and wind shape land. In real life these are usually very slow processes—they can take hundreds or even thousands of years. In most cases we are not able to see the changes from day to day. Now when you visit a place and see the shapes of the land, you can think about how water and wind formed those shapes.</i></p> <p><i>This week in the Discovery Studio you will investigate which type of erosion is shaping a landform.</i></p> <p>At the close of this lesson, both sand and topsoil can be added to the class Landforms and Water Table for use during Studios.</p>
<p><b>Standards and</b></p>	<p><b>SL.2.2.a</b> Recount or describe key ideas or details from a text read aloud or</p>

<b>Practices</b>	<p>information presented orally or through other media.</p> <p><b>2-ESS2-1:</b> Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p>
<b>Ongoing assessment</b>	<p>Reflect on the class discussion.</p> <p>What do children understand now about water erosion?</p> <p>What do children understand now about wind erosion?</p> <p>What do children understand now about the effects of wind and water on different Earth materials?</p> <p>What misconceptions persist, and what experiences will help to address them?</p>

**Notes**

Unit 2: The Forces of Wind and Water

WEEK 5 Studios



**How can wind change land, and why does it matter?**

Children represent wind with art media and tell stories involving wind, construct water-based landscapes and simulate erosion, and review classroom resources to consolidate knowledge.

<p><b>Big Ideas</b></p>	<p>Wind and water can change the shape of the land. Changes happen over time.</p>
<p><b>Weekly Question</b></p>	<p>How can wind change land, and why does it matter?</p>
<p><b>Materials and Preparation</b></p>	<ul style="list-style-type: none"> <li>● new studios prompts Cut apart and replace studios prompts.</li> <li>● Observation Sheets, on clipboards</li> </ul> <p><u>New for the Art Studio:</u></p> <ul style="list-style-type: none"> <li>● children’s book covers and illustrations depicting wind</li> <li>● any variety of art materials introduced to date: colored pencils, crayons, watercolor paints, collage, Beautiful Stuff</li> <li>● variety of papers according to media available (drawing, watercolor, and/or construction papers of different sizes)</li> <li>● tools needed according to media available (brushes, pens, scissors, glue and spreaders)</li> </ul> <p>Based on children’s interests and explorations to date, choose and organize a limited number of art materials and tools. Set these up to promote intentional choices and work.</p> <p><u>New for the Building Studio:</u></p> <ul style="list-style-type: none"> <li>● craft sticks</li> <li>● paper of various weights, cut in quarter sheets</li> <li>● glue and glue spreaders</li> <li>● Beautiful Stuff</li> <li>● trays or a designated shelf for drying built structures</li> </ul>

	<p>Arrange materials and work space to encourage careful work.</p> <p><u>New for the Research Studio:</u></p> <ul style="list-style-type: none"> <li>● all Unit 2 print resources provided to date</li> <li>● Weekly Question charts</li> <li>● sticky notes</li> <li>● writing tools, including markers</li> </ul> <p><u>New for the Math Studio:</u></p> <p><u>New and ongoing for the Discovery Studio</u></p> <ul style="list-style-type: none"> <li>● Types of Landforms images</li> <li>● Landforms and Water Table</li> <li>● sand</li> <li>● soil</li> <li>● clay</li> <li>● rocks</li> <li>● container with water</li> <li>● straws</li> <li>● scissors</li> <li>● Science and Engineering packets</li> <li>● pencils and colored pencils</li> </ul> <p><u>New for the Writing and Storytelling Studio:</u></p> <ul style="list-style-type: none"> <li>● children’s book covers and illustrations depicting wind (shared with Art Studio)</li> </ul> <p>Prepare the Opening Basket with a few sample materials from each studio, along with the Studios Planner and prompts.</p> <p>Decide which day(s) to host a Thinking and Feedback meeting, and plan Studios time accordingly.</p>
<p><b>Opening</b></p>	<p><i>We are thinking a lot about wind this week! In Studios, you’ll be exploring wind in different ways, as well as continuing other work you’ve been doing. This week’s question is How can wind change land, and why does it matter?</i></p> <p><i>In the Art Studio, we have some illustrations from children’s books—some of them might be familiar to you! In these illustrations wind is, in some way, part of the picture. How do <u>you</u> see wind? How can you represent it on paper? You can use these materials [name tools and materials selected] to show</i></p>

*wind in your own works of art.*

*In the Building Studio, you'll think about wind and water as you design and build structures that might be affected by changing land. [Show selected materials.] See what kinds of small buildings you can construct that might be found near a river or sea. When the glue has dried on your structure, you can see what happens with different kinds of erosion in the Discovery Studio's Landforms and Water Table.*

*In the Discovery Studio you will work in the large Landforms and Water Table to investigate what kind of erosion creates certain kinds of landforms. We'll use the landforms images you have been looking at in Writing. Choose a landform image. Then, in your packet, write the name of your landform and the type of erosion you will investigate. Build the landform using sand, soil, rocks, or clay—or a combination of these. Then draw a diagram of it. Think about what kind of erosion might shape a landform like that, and try to recreate that kind of erosion using wind or water. Then, after conducting your investigation, draw how the landform changed. Finally, imagine what this landform might look like after many years of erosion. In the last box, draw a picture of what you imagine. Write down any notes about your observations, ideas, and questions.*


*All of the resources we have used so far in our study of the forces of wind and water on land are in the Research Studio. Look through them and talk with your classmates about new ideas and questions you are having. Write down connections you are making and important words you are using on our Weekly Question charts. You can write directly on the charts or on sticky notes and attach them to the charts where they connect.*


*Of course, you can always read some of the books we have about the forces of wind and water or write more book introductions, as well.*

*In the Math Studio, We will play a game called Target Measurements with a partner. You will choose an object and a unit of measurement to measure your object with.*

*Finally, in the Writing and Storytelling Studio... you guessed it: try telling some stories that feature wind!*

	<p><i>There are lots of new choices in studios this week. Turn and talk to a partner about where you might begin your work.</i></p> <p>Dismiss children to work. Because so many of the Studios activities are new this week, children may need support making choices and settling into their work.</p>
<p><b>Facilitation</b></p>	<p>Help children consider the possibilities for studios work. Remind them of the Weekly Question. Offer texts to inspire or direct their work, as useful.</p> <p>Once children are working, circulate through all of the studios to see which activities grab their interest and how they approach various tasks.</p> <p>Use the observation sheet to record activities; conversations; strategies children use; challenges they face; and ways they interact with each other and with the materials and processes.</p>

<p><b>Art</b></p> 	<p><b>What does wind look like?</b></p> <p><u>Content Objective:</u> I can choose and use art media to represent wind.</p> <p><u>Process:</u> Children peruse book covers and illustrations depicting wind. They choose any of the art media introduced to date and use them purposefully to create images.</p> <p><u>Facilitation:</u> <i>What do you notice in this illustration?</i> <i>What materials do you think this artist used?</i> <i>What makes this an effective illustration?</i> <i>How do you see wind? How can you represent it on paper?</i></p> <p><u>Thinking and Feedback Possibilities:</u> When children bring their images to the group, focus the feedback on choice of material and effectiveness in depicting wind. Viewers might describe what they see in the picture and how use of materials and/or processes gives them that feeling or impression. Feedback might focus on other materials or processes an artist could add or try next.</p> <p><u>Ongoing Assessment:</u></p>
-------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Look for ways in which children’s representations communicate their understanding of the movement and effects of wind. Consider the purposefulness they have brought to choices in materials, processes, and visual presentation. Look for an awareness of audience, and compare this to children’s consideration of audience in their writing and speaking.</p>
<p><b>Building</b></p> 	<p><b>Building Riverbank and Seaside Structures</b></p> <p><u>Content Objective:</u> I can build a structure with attention to detail and with carefully chosen materials.</p> <p><u>Process:</u> Using craft sticks, paper, Beautiful Stuff, and liquid glue, children make miniature structures to add to the Landforms and Water Table. (In the Discovery Studio, in Week 6, children create landscapes of land and water and situate their structures near the water to see what effects erosion may have on them.)</p> <p><u>Facilitation:</u> <i>What kind of structure are you building? What materials are you using to build it? Why did you choose these? Encourage children to think about properties of materials, as studied in Unit 1.</i> <i>Are you thinking about a certain part of a landscape where this structure might be found?</i> <i>Is there a particular resource in our classroom that has inspired you to build this?</i></p> <p><u>Thinking and Feedback Possibilities:</u> Children can offer feedback on many elements of design: aesthetics, sturdiness, appropriateness for a particular environment, materials and techniques for building.</p> <p><u>Ongoing Assessment:</u> How have children consolidated knowledge from Unit 1 Science and Engineering lessons and experiences? How are they thinking about landscapes and the kinds of structures that will be successful in different areas, related to landforms and forces of water and wind?</p>
<p><b>Discovery</b></p>	<p><b>Creating Erosion</b></p> <p><u>Content Objective:</u> I can simulate erosion and make predictions about erosion’s impact on</p>



landforms.

Process:

Working at the classroom Landforms and Water Table, children build on and inform their Writing work.

From the selection of images used for writing explanation, working collaboratively or independently, children choose a landform to investigate. By looking closely at the image, they determine what kind of erosion—wind, water, or wind and water together—might create this kind of landform.

At the Landforms and Water Table, children build the chosen landform with sand, soil, rocks, and/or clay. Then they exert water and/or wind to erode it. Once they see that the landform has changed, they record the changes in their packets. Then, they draw what the landform might look like in the future, after many years of erosion.

Facilitation:

Encourage children to work methodically as they consider, build, and erode the landforms.

Ongoing Assessment:

Many of the images of landforms look permanent. This is an opportunity to gauge children’s understanding that change from erosion happens over long periods of time.

Notice how children talk about the phenomenon of erosion.

What evidence from images do children cite as they discuss what kinds of erosion might create different landforms?

What other resources do they draw upon to inform their experiments?

Do children make reasonable predictions?

How do they record what they find?

## Math



### Target Measurements

Objective:

I can estimate the length of an object and verify its actual target measurement.

Process/Directions:

- Partner A:
  - Choose an object. The length of this object will be the target measurement.
  - Choose a target length:
    - inches (up to 10) or

	<ul style="list-style-type: none"> <li>■ centimeters (up to 30)</li> <li>○ Begin to draw a line with a straightedge.</li> <li>● Partner B: <ul style="list-style-type: none"> <li>○ Say "Stop!" when you think the length of the line is equal to the target measurement.</li> </ul> </li> <li>● Both partners measure the line.</li> <li>● Both partners find the difference between the length of the line and the target measurement. The difference is Partner B's score for the round. For example: target measurement was 13cm, line was 9 cm, my score would be 4 (13-9=4)</li> <li>● Take turns. After 8 rounds, the player with the lowest total score wins.</li> </ul> <p><u>Facilitation:</u> Be sure to visit the Center and model how to play the game. Support children with their target measurements and comparing.</p> <p><u>Ongoing Assessment:</u> Note children's strategies for estimating, measuring, and finding the difference. What are they noticing about their estimations? How are they working together to play the game?</p>
<p style="text-align: center;"><b>Research</b></p> <div style="text-align: center; border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; background-color: #90EE90; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 2em; color: black;">?</span> </div>	<p><b>Understanding Land and How It Changes</b></p> <p><u>Content Objective:</u> I can review, discuss, and write questions about images, maps, and other resources in our classroom.</p> <p><u>Process:</u> Organize the classroom collection of print resources connected to various lessons and experiences so that children can easily access them. They might be put in sheet protectors in a binder, hung on a wall or bulletin board, or organized in folders or bins. Children peruse and compare these and talk about what they find. They write connections and important vocabulary words on the Weekly Question charts.</p> <p><u>Ongoing Assessment:</u> Note connections children make among resources and Weekly Questions. How do they apply information from one context to another? How complex are their conversations? What evidence points to children consolidating knowledge? How do children articulate their growing knowledge?</p>
<p style="text-align: center;"><b>Writing and Storytelling</b></p>	<p><b>Wind Stories</b></p> <p><u>Content Objective:</u> I can imagine stories involving wind.</p>



Process:

Working collaboratively, children tell, write, draw, and enact stories in which wind plays a part. Wind might be a character or an element of the setting; the plot might turn on an effect of wind. Children might begin by perusing illustrations in the Art Studio. Characters might include landforms that change. Children include these stories in their Storytelling Books and act them out with the whole group during Story Acting.

Facilitation:

Encourage children to act out a variety of roles: wind and other elements of weather, water, landforms, and features of landscapes (such as trees and other plant life), along with human and animal characters. Encourage children to communicate a single story in a variety of ways: telling, drawing scenes, writing, acting.

Thinking and Feedback Possibilities:

Invite children to share their stories through reading, telling, and acting. Children in the group may ask questions about how the story originated, as well as offer feedback for revising or continuing the story.

Ongoing Assessment:

How are children integrating knowledge they are building about landforms and the effects of wind and water into their stories?  
 What new connections are they making?  
 What ideas emerge in stories that can add to the class discussion and expand others' understanding?

**Standards**

Standards addressed will depend on the studios in which children work. Some possibilities include developing work towards those listed in the Studios Introduction (Part 1) and the following studio-specific standards.

Discovery:

**W.1.2.a** Investigate questions by participating in shared research and writing projects.

**2-ESS2-4(MA).** Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.

Math:

**2.MD.A.1**

	<p>Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p><b>2.MD.A.3</b> Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p><u>Research:</u></p> <p><b>R.8.2.b</b> Explain how various text features (e.g., headings, bold print, index, graphics, tables of contents, glossaries, links, icons) are used to locate key facts or information in a text efficiently.</p> <p><b>R.11.2.a</b> Use illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.</p> <p><b>R.11.2.b</b> Compare and contrast two or more versions of the same story presented in diverse forms</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Notes**

## **Art Studio**

*While you are working, think about:*

What do I notice in this illustration?

What materials did this artist use?

What makes this an effective illustration?

How can I represent wind on paper?



## **Building Studio**

*While you are working, think about:*

What kind of structure am I building?

What do I know about the properties of these materials?

Where might a structure like this be found?

What resources in our classroom am I using as I build?

## **Discovery Studio**

*While you are working, think about:*

What is happening? Why is it happening?

If this kept happening, what would this landform look like in the future?

Can I make something happen in a different way?

How can I communicate what I am discovering?

---

## **Math Studio**

*While you are working, think about:*

How are you deciding on your unit of measurement?

How are you using addition or subtraction?

What do you like about playing games with a friend?

How can you teach this game to others?

## **Research Studio**

*While you are working, think about:*

What resources are most interesting to me?

What can I find out?

What connections can I make from one resource to another?

How can I record what I find out?

## **Writing and Storytelling Studio**

*While you are working, think about:*

How can we show wind with our bodies?

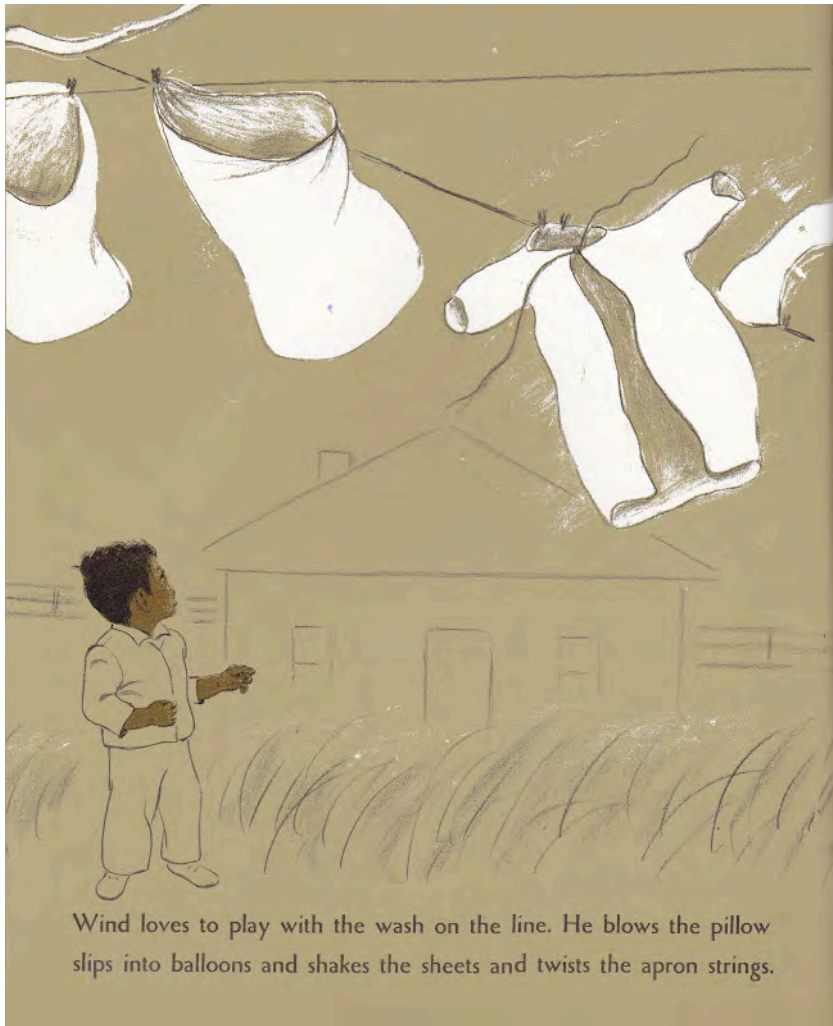
What props might we use?

What parts of our world does wind impact?

What stories can we tell?

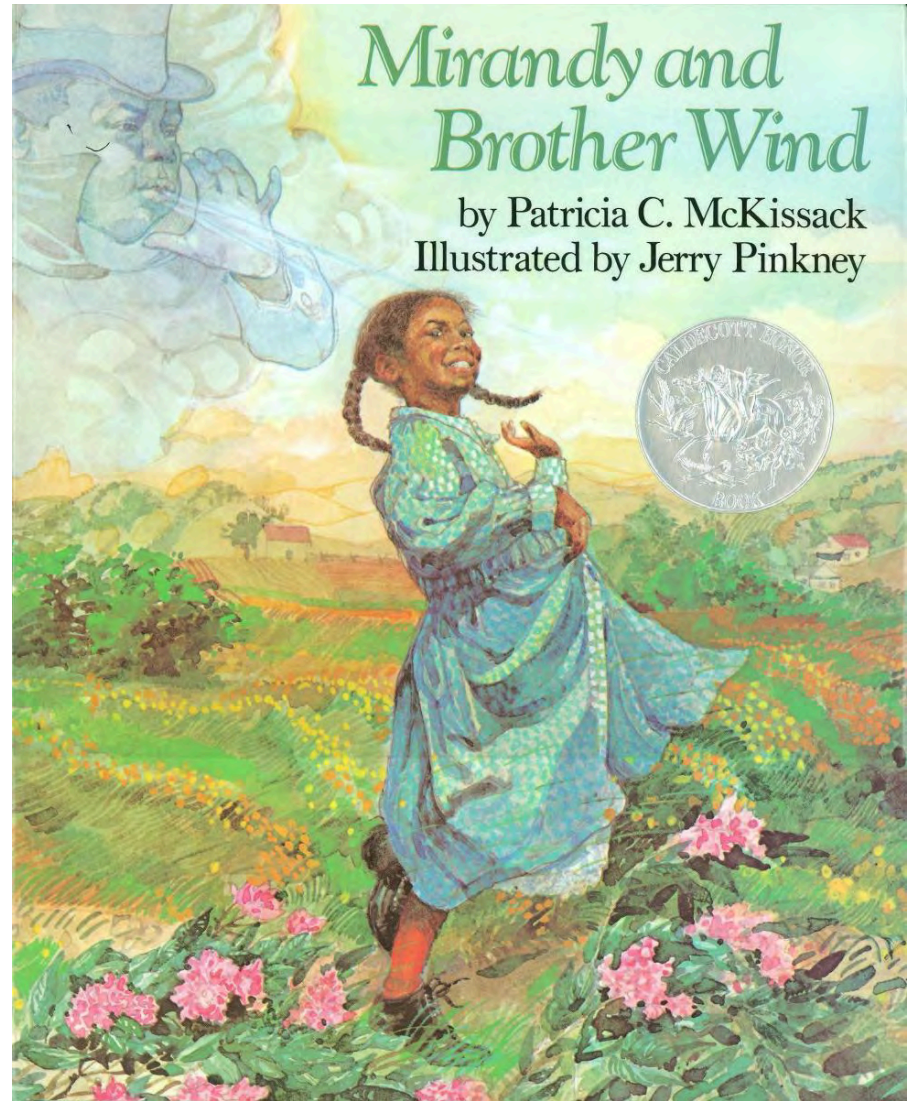
How can we act them out?

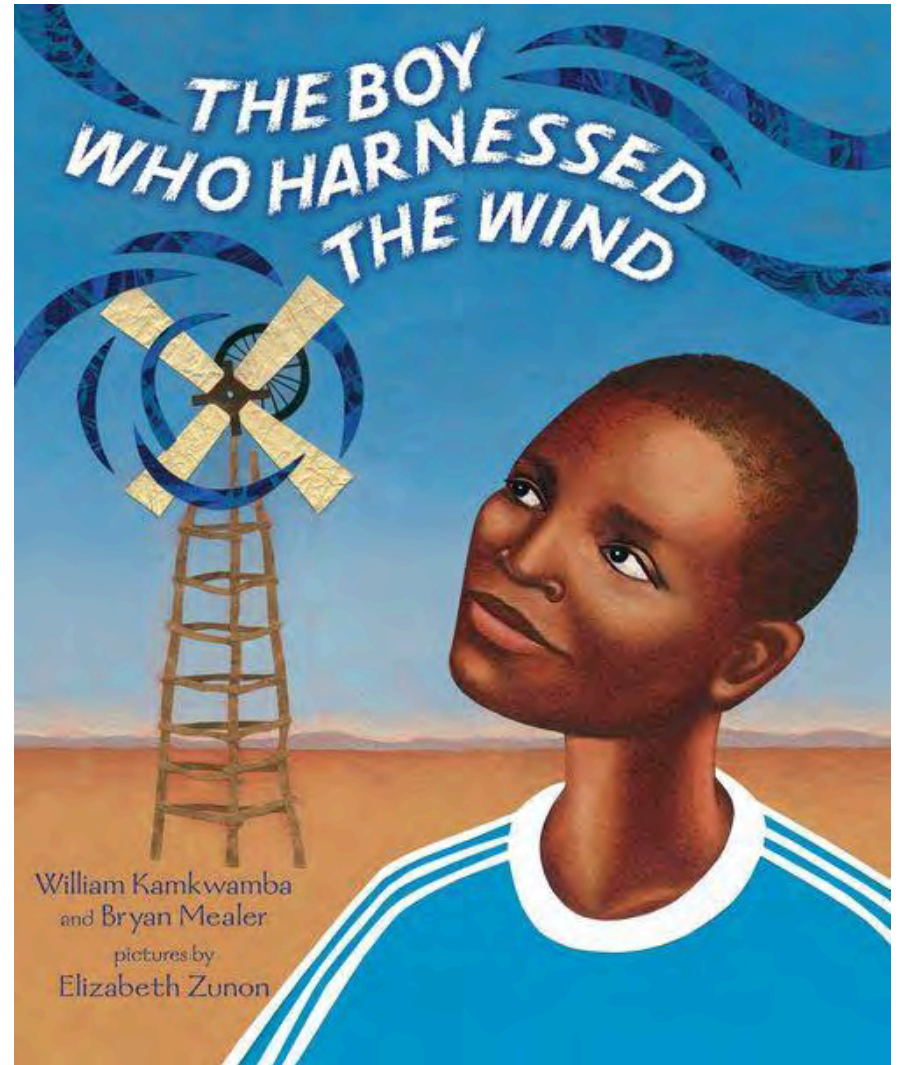
What do I want to include in my writing and drawing to communicate wind as an important part of my story?



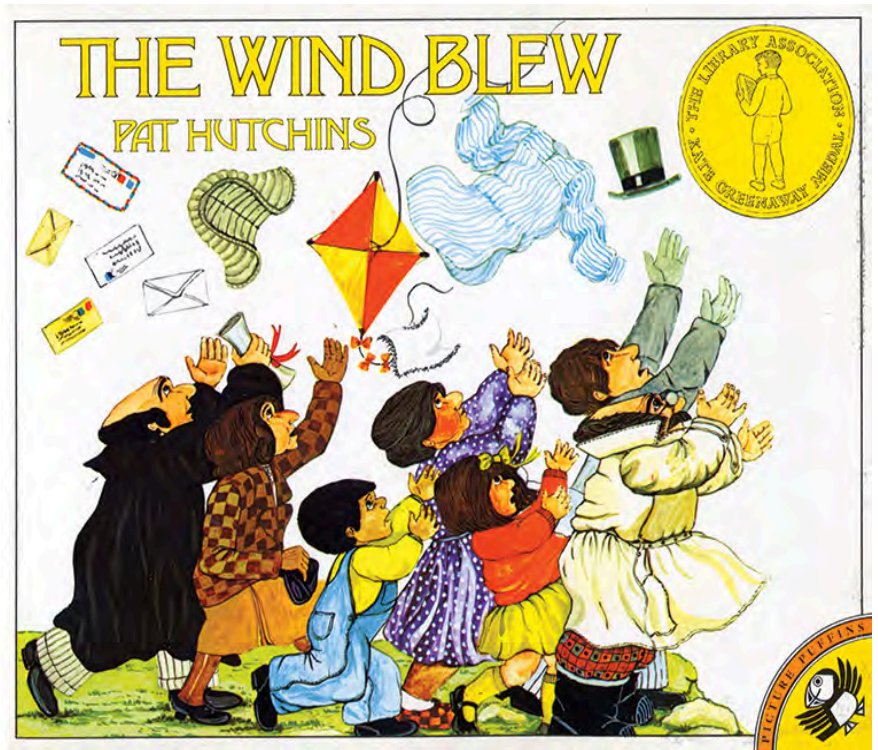
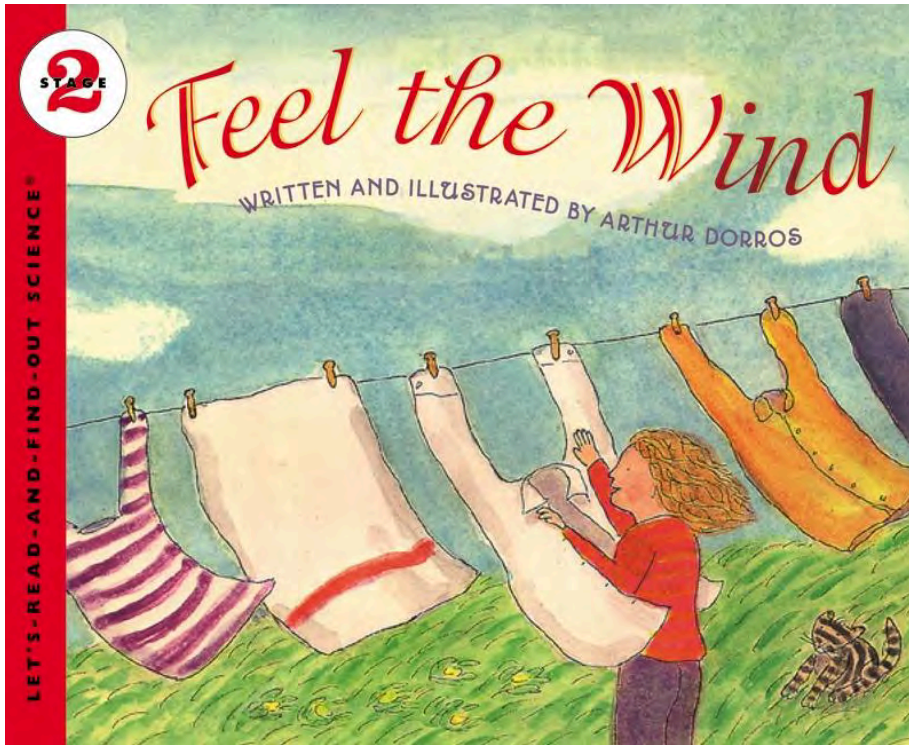
Wind loves to play with the wash on the line. He blows the pillow slips into balloons and shakes the sheets and twists the apron strings.

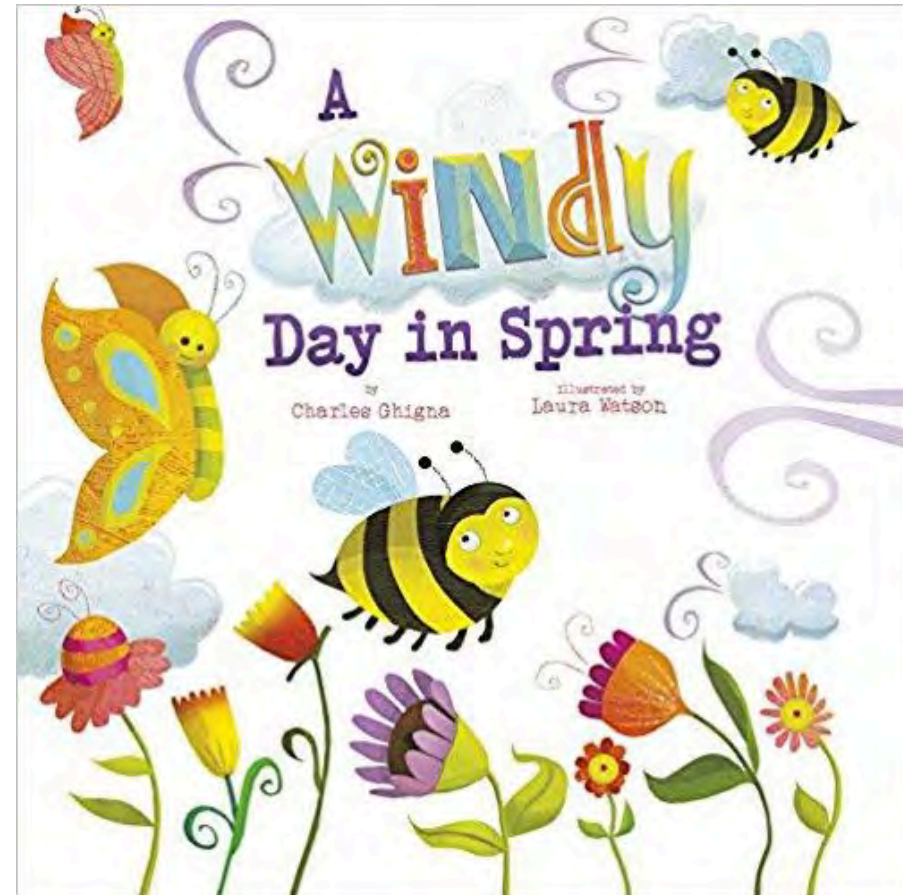
from *Gilberto and the Wind*, Marie Hall Ets





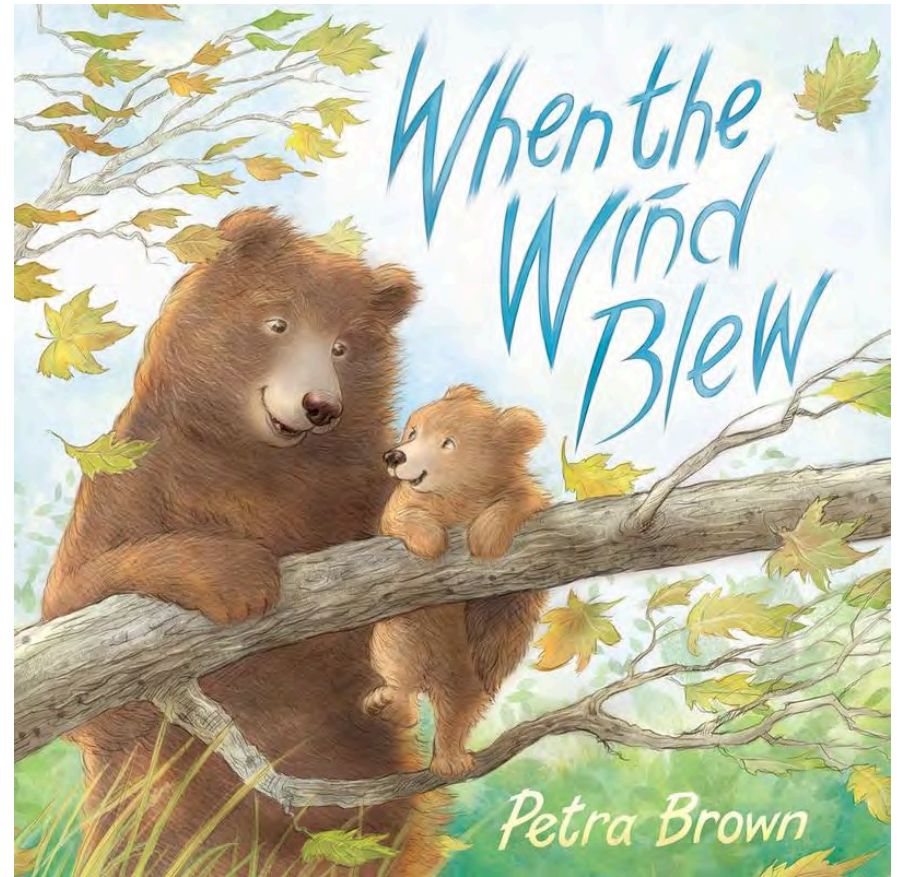
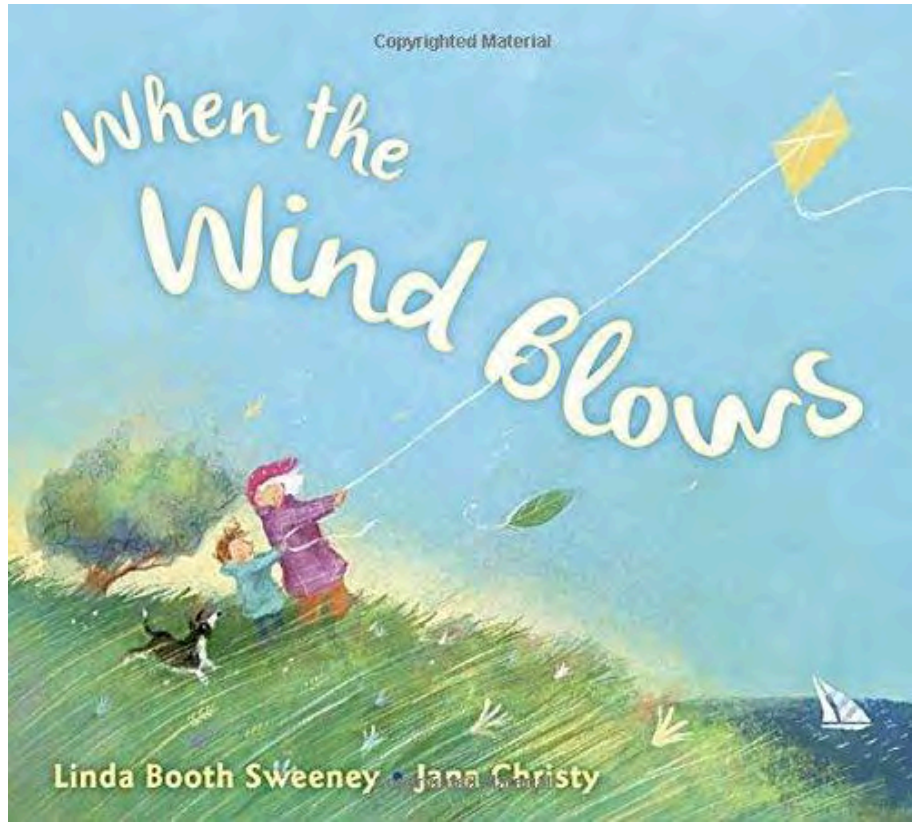
Art Studio U2 W5





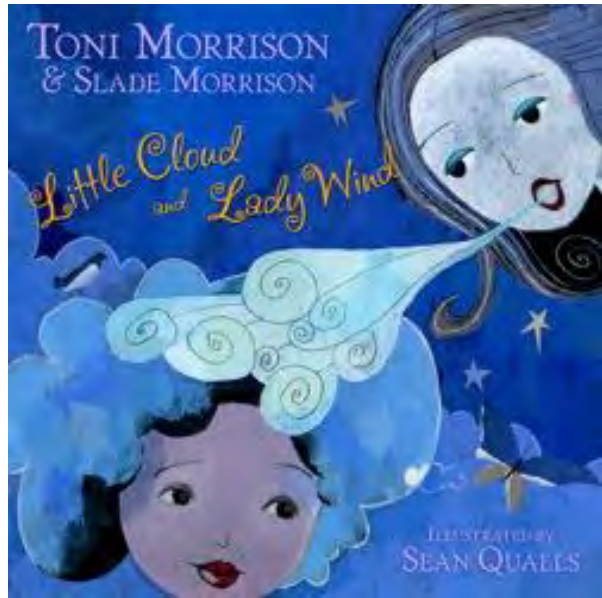
Art Studio U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/  
Maine Department of Education



Art Studio U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/  
Maine Department of Education

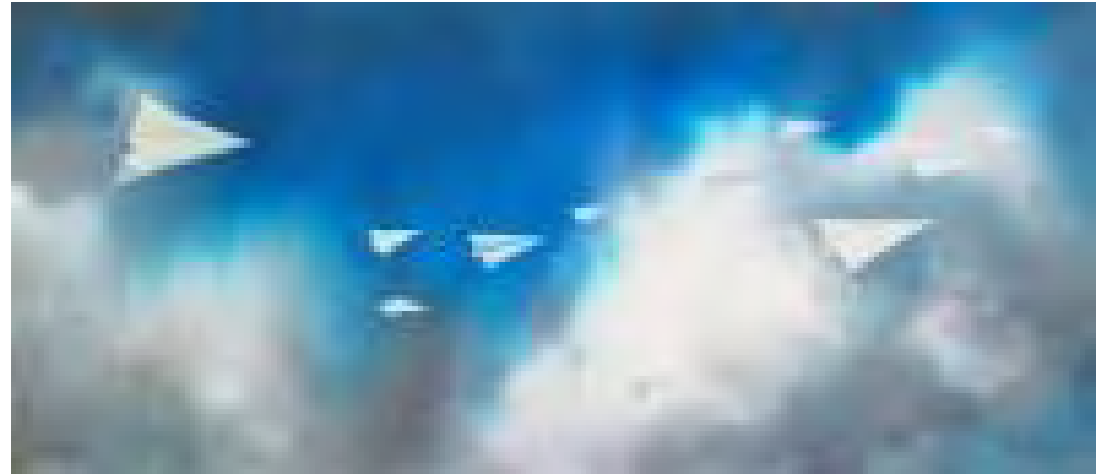


Art Studio U2 W5

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/  
Maine Department of Education



from *A Child's Garden of Verses*,  
illustrated by Alice Martin



From *Blowin' in the Wind*, Bob Dylan and Jon J. Muth

## Types of Landforms



butte



canyon



cliff



mushroom  
rock



valley

## Target Measurement Stage 1 Recording Sheet

Directions:

- Partner A:
  - Choose a target length in inches (up to 10) or centimeters (up to 30).
  - Begin to draw a line with a straightedge.
- Partner B:
  - Say "Stop!" when you think the length of the line is equal to the target measurement.
- Both partners measure the line and find the difference between its length and the target measurement. The difference is Partner B's score for the round.
- Take turns. After 8 rounds, the player with the lowest total score wins.

round	Partner A			Partner B		
	target length	actual length	points	target length	actual length	points
1						
2						
3						
4						
5						
6						
7						
8						

## Unit 2: The Forces of Wind and Water

### WEEK 5 Day 1

#### Writing Explanation

##### Pre-Assessment

<b>Content Objective</b>	I can write to explain how rivers change the shape of the land. (W.3.2)
<b>Language Objective</b>	I can orally explain how rivers change the shape of the land to my partner. (SL.2.1.a)
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>● Rio Patagonia slide</li><li>● Explanation Pre-Assessment sheet, 3 sheets for each child, plus a few extra copies Note that children can cut the sheets in half to reorder them, if necessary.</li><li>● writing tools</li><li>● Explanation Rubric, one copy to complete for each child</li><li>● Explanation Pre-Assessment Reflection</li></ul>
<b>Opening</b> 9 minutes  slide 2	<p><i>Like you did at the beginning of our personal recount unit, today you will do some writing by yourselves, without help. This gives me a better idea of what you already know and helps me plan for our new Writing unit.</i></p> <p>Show the Rio Patagonia slide. <i>Take a look at this photograph. This is a picture of a river called Rio Patagonia, taken from above. The blue and white part shows the course of the river today. The other lines are other courses the river has taken, called scars. How does the river leave scars on the Earth?</i></p> <p>Show the Explanation Pre-Assessment sheet. <i>Each of you will get a sheet that looks like this. At the top it says "Write to explain how rivers change the shape of the land." Then there is a place to write your name and the date.</i></p> <p><i>Before you write, you can practice your explanation by telling it.</i></p>

	Think, Pair, Share. <i>Explain how rivers change the shape of the land.</i>
<b>Individual Construction</b> 20 minutes	Distribute writing tools and Pre-Assessment sheets, and send children to write.
<b>Closing</b> 1 minute	<i>It's so helpful for me to read your writing and to see what you already know! Tomorrow we will begin learning about a new genre of writing.</i>
<b>Standards</b>	<b>W.3.2</b> Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end. <b>SL.1.2.a</b> 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).
<b>Ongoing assessment</b>	To become familiar with the genre and how it is taught, read Writing: Introduction to Explanation (in the Unit 2 Introduction documents).  Use the Explanation Rubric to score each child's work. Then, complete the Explanation Reflection to plan for next steps.  Review children's writing for content knowledge. What do they understand about rivers changing their courses? What do they understand about how rivers affect land? What is still confusing? What needs to be revisited/introduced/explored more to provide the children with a deeper understanding of the content?

<b>Notes</b>
--------------

Explanation Pre-Assessment

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

Name: \_\_\_\_\_ Date: \_\_\_\_\_

---

---

---

---

Name: \_\_\_\_\_

---

---

---

---

## 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.2.2, W.2.4)	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.2.2)	Not Observed	1	2	3	4
<b>Phenomenon Statement:</b> 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.
<b>Explanation Steps:</b> 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
<b>Verbs:</b> uses present tense action verbs (L.2.2d)		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.
<b>Nouns:</b> uses general nouns, naming a group or class, rather than something specific (L.2.1c)		Uses mostly specific nouns.	Switches between general and specific nouns.	Uses mostly general nouns.	Uses all general nouns.
<b>Adjectives:</b> words and prepositional phrases are used to describe the nouns; adjectives are packed into sentences, rather than spread out over several sentences (L.2.1b)		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
<b>Sentence Complexity</b> L.2.1f		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.

<b>Capitalization</b> L.2.2a		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.
<b>Punctuation</b> L.2.2b L.2.2c		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.
<b>Spelling</b> L.2.2d L.2.2e		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**

## Explanation Pre-Assessment Reflection

What are areas of strength for most children?

What are the highest areas of need?

When and how will I address children’s needs?  
 (See the table below for guidance about where elements appear in the unit.)

Purpose (W.2.2, W.2.4)	Week 5, Day 2
Structure (W.2.2, W.2.4)	Week 5, Day 3
Language	Verbs (L.2.2d): Week 6, Day 2 Nouns (L.2.1c): Week 6, Day 3 Adjectives (L.2.1b): Week 6, Day 3
Conventions	Some conventions will be addressed through phonics lessons.  In Week 6, Day 5 and Week 7, Days 1-4 children write independently, with additional instruction in genre elements and conventions, based on children’s needs.


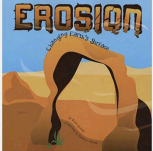
Unit 2: The Forces of Wind and Water



WEEK 5 Day 2

**Writing Explanation**  
 Deconstruction: Explanation Purpose  
 Deconstruction: Posters

<b>Content Objectives</b>	<p>I can discuss the main purpose of a text. (R.9.2.b)</p> <p>I can discuss the role of images in a poster. (R.11.2.c, R.11.2.d)</p>
<b>Language Objectives</b>	<p>I can use details from a text to support my response. (SL.2.2.a)</p> <p>I can describe the features of posters and compare them to other media.</p>
<b>Vocabulary</b>	<p><b>explain:</b> to describe in detail</p> <p><b>explanation:</b> a genre of writing whose purpose is to explain a phenomenon in sequence</p> <p><b>genre:</b> a type of writing</p> <p><b>image:</b> a representation of something in the form of a drawing, photograph, etc.</p> <p><b>medium:</b> a form of communication</p> <p><b>phenomenon:</b> an observable thing that happens</p> <p><b>purpose:</b> the reason for doing or creating something</p> <p><b>report:</b> a genre of writing whose purpose is to organize information about a topic</p> <p><b>sequence:</b> in a particular order</p> <p><b>stages:</b> the parts of a piece of writing</p>
<b>Materials and Preparation</b>	<p>To become familiar with the genre and how it is taught, read Writing: Introduction to Explanation (in the Unit 2 Introduction documents).</p> <ul style="list-style-type: none"> <li>● <i>How Do Wind and Water Change Earth?</i>, Natalie Hyde</li> <li>● Explanation anchor chart images: mentor texts, cut apart</li> <li>● chart paper</li> </ul> <p>Prepare the following Explanation anchor chart. Glue the mentor</p>

	<p>text images to the chart.</p> <div data-bbox="500 281 1362 1035" style="border: 1px solid black; padding: 10px;"> <p style="text-align: center;"><b>Explanation</b></p> <p><b>Purpose:</b> to explain a phenomenon in sequence</p> <p><b>Examples:</b></p> <div style="display: flex; justify-content: space-around;">   </div> </div> <ul style="list-style-type: none"> <li>● Sample Posters slides</li> </ul>
<p><b>Opening</b> 1 minute</p>	<p><i>Today we are going to begin looking at a new genre of writing called explanation.</i></p>
<p><b>Deconstruction</b> 18 minutes</p> <p><i>How Do Wind and Water Change Earth?</i> cover-page 9</p>	<p><i>This book—How Do Wind and Water Change Earth?—looks a lot like another book we’ve read: Earth’s Landforms and Bodies of Water. They are both written by Natalie Hyde and published by the same company. Although the two books have many similarities—they are even both about Earth—they are different in an important way. They are written in different genres for different purposes. Earth’s Landforms and Bodies of Water is a report, written to organize information about a topic. How Do Wind and Water Change Earth? is an explanation. Let’s read to find out why Natalie Hyde wrote this book.</i></p> <p>Read the cover, title page, Contents, and pages 4-5. Flip through pages 6-9, explaining:</p> <p><i>The next sections of this book are called “Wind erosion” and “Wind weathering.” We read these today in Text Talk, so we are going to skip them.</i></p>

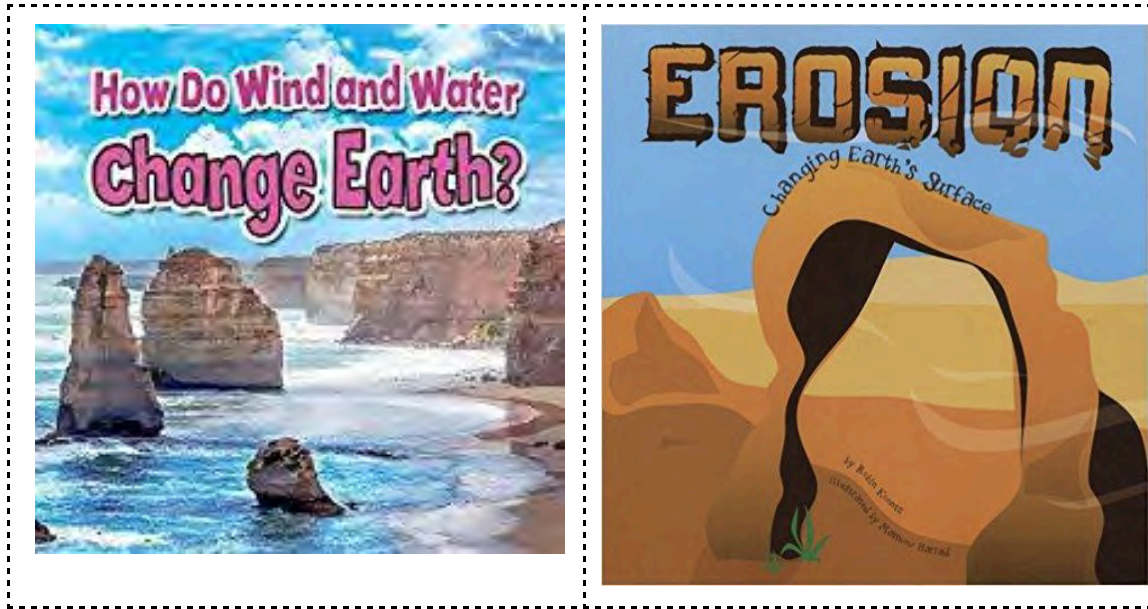
<p>pages 10-21</p>	<p>Read pages 10-19. Quickly glance at pages 20-21. <i>Remember these pages? Natalie Hyde included a procedure in her book.</i></p>
<p>page 22</p>	<p>After reading the page, facilitate discussion. <i>Take a moment to think, and then talk to a partner. Why did Natalie Hyde write this book? What is the purpose? Use evidence from the text to support your response.</i></p> <p>Allow the children several minutes to think and share with a partner. Then harvest and discuss their ideas.</p>
	<p>Show the Explanation anchor chart. <i>The purpose of <b>explanation</b> is to explain a phenomenon in sequence. <b>Explain</b> means to describe in detail, and <b>phenomenon</b> is a scientific word that means something that happens that can be observed.</i></p> <p><i><b>Sequence</b> is a word that you might remember; it means in order. We have used this word before when writing other genres. Sequence is important in personal recounts and procedures. But these genres are written for different purposes. Personal recounts document a sequence of events. Procedures give directions in sequence to accomplish a goal. Explanations explain a phenomenon in sequence.</i></p> <p><i>How Do Wind and Water Change Earth? is one example of an explanation we will explore in this unit.</i></p>
<p><b>Deconstruction</b> 10 minutes</p>	<p><i>So far this year you have written using different <b>media</b>, or forms of communication. You published procedures in different ways and wrote personal recount books. Today we will explore a new medium: posters.</i></p> <p><i>Where have you seen posters before? [in the classroom; around the school; event flyers around the town]</i> <i>What do they communicate? [fire drill instructions; classroom or school information; event details]</i></p> <p><i>We are going to look at sample posters to see what we notice. Look carefully at each poster. Then we'll discuss what you noticed.</i></p> <p>Show the slides; then facilitate a class discussion. <i>What did you notice about the posters?</i> <i>What is the same/different about posters and other media?</i></p>

	<p>If the children do not say anything about the layout of the posters, go back to the slides and ask them what they notice about how they are organized.</p> <p><i>Posters usually hang in common spaces for people to look at as they walk by. They need to catch their audience’s attention, and need to be seen from far away. When we studied procedures, we talked about the importance of images. Images make writing more clear. As you can see, images are especially important on posters. Images are used to communicate a lot of the information in posters.</i></p> <p><i>In a few weeks you will make a poster that includes the report caption you wrote last week and the explanation you will write next.</i></p>
<p><b>Closing</b> 1 minute</p>	<p><i>Today we began learning about a new genre called explanation, which is written to explain a phenomenon in sequence. Tomorrow we will learn about the stages of explanation.</i></p>
<p><b>Standards</b></p>	<p><b>R.9.2.b</b> Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</p> <p><b>R.11.2.c</b> Explain how specific visuals contribute to and clarify the meaning of a text.</p> <p><b>R.11.2.d</b> Compare and contrast the information presented by two texts on the same topic.</p> <p><b>SL.2.2.a</b> Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
<p><b>Ongoing assessment</b></p>	<p>Reflect on the whole group discussions.</p> <p>What do the children already know about the purpose of explanation? What are their confusions?</p> <p>What do the children notice about posters? What needs to be reinforced as they create their own posters? To what extent do children understand the role that images play in communicating through posters?</p>

**Notes**

Explanation anchor chart images

mentor texts



Writing U2 W5 D2

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/  
Maine Department of Education

Unit 2: The Forces of Wind and Water



WEEK 5 Day 3

**Writing Explanation**  
Deconstruction: Explanation Stages

<b>Content Objectives</b>	I can orally tell an explanation sequence. (R.6.2.b) I can name the stages of explanation. (W.3.2, W.2)
<b>Language Objective</b>	I can ask and answer questions to understand the explanation stages. (SL.2.2.b)
<b>Vocabulary</b>	<b>audience:</b> an individual or group for whom a piece of writing is composed <b>explain:</b> to describe in detail <b>explanation:</b> a genre of writing whose purpose is to explain a phenomenon in sequence <b>explanation steps:</b> the phenomenon explained, in order <b>phenomenon:</b> an observable thing that happens <b>phenomenon statement:</b> the beginning of an explanation, where the phenomenon is introduced <b>sequence:</b> in a particular order <b>stages:</b> the parts of a piece of writing
<b>Materials and Preparation</b>	<ul style="list-style-type: none"><li>● <i>How Do Wind and Water Change Earth?</i>, Natalie Hyde Flag page 10.</li><li>● sticky notes, about 10</li><li>● markers</li><li>● chart paper</li></ul> Prepare the following Water Erosion chart.

	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%; background-color: #f0f0f0;"> <p style="text-align: center;"><b>Water Erosion</b></p> <p><b>Phenomenon Statement:</b> As water moves, it changes Earth’s surface.</p> <p><b>Explanation Steps:</b></p> </div> <ul style="list-style-type: none"> <li>● Explanation anchor chart images: stages, cut apart</li> <li>● Explanation anchor chart, from Day 2</li> </ul>
<p><b>Opening</b> 1 minute</p>	<p><i>Yesterday we started learning about <b>explanation</b>, a genre written to explain a phenomenon in sequence. How Do Wind and Water Change Earth? contains a number of explanations. Let’s read one to find out about its stages.</i></p>
<p><b>Deconstruction</b> 28 minutes</p> <p>page 10</p>	<p>Read page 10. <i>On this page, what does Natalie Hyde explain to the reader?</i></p> <p><i>This page actually begins with a mini-report [the first two sentences]. Natalie Hyde gives some information about water so her audience, elementary school students, has the background information they need to understand the explanation.</i></p> <p>Reread the first two sentences.</p> <p><i>The explanation begins here, with this next sentence [point and read]: “As it moves, it changes Earth’s surface.”</i></p> <p><i>The beginning of an explanation is called the phenomenon statement. This is the part where the writer introduces the phenomenon that they will explain. The text says “As it moves, it changes Earth’s surface.” What does “it” refer to in this sentence?</i></p> <p><i>Natalie Hyde introduced water in the previous sentences, so it is clear that she is talking about water. But, if we write this sentence by itself, we need to change the word “it” to “water” to make it more clear. Take a look at this chart.</i></p> <p>Show the Water Erosion chart, and read what is filled in so far. <i>After the statement of phenomenon come the explanation steps. After Natalie Hyde introduces that moving water changes Earth’s surface, she explains how this happens, in order.</i></p>

*I am going to reread this page, starting with the phenomenon statement. As I read, listen for how moving water changes Earth's surface.*

Starting with "As it moves..." read the rest of page 10.

*How does moving water change Earth's surface? Take a moment to think and then share your ideas with your partner.*

Harvest the children's ideas and write each one on a sticky note.

*Let's add our ideas to this chart, in sequence.*

Discuss the sequence of the explanation—which part came first, etc.

Place the explanation steps in sequence on the Water Erosion chart. See the following example.

Water Erosion
<b>Phenomenon Statement:</b> As water moves, it changes Earth's surface.
<b>Explanation Steps:</b> Moving water flows over rocks and soil and wears it away. Water picks up bits of soil, sand, and rocks. It carries these bits and drops them in new places.

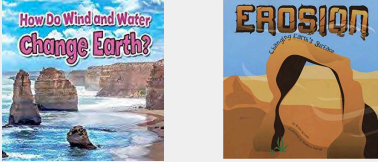


*With erosion, this sequence repeats again and again. The water is constantly moving and carrying soil, sand, and rocks. Explanations only include the sequence once—to explain how it happens—but we should remember that this is a process that continues.*

Refer to the Explanation anchor chart.

*We have learned that explanation begins with a phenomenon statement, followed by the explanation steps. Let's add these to our anchor chart.*

Under Examples, write Stages and attach the images to the chart. See the following example.

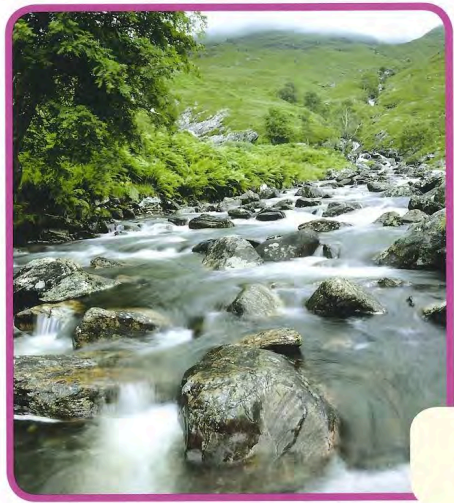
Explanation
<b>Purpose:</b> to explain phenomenon in sequence
<b>Examples:</b>

	<div style="text-align: center;">  </div> <p><b>Stages:</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>phenomenon statement</p>  <p>As it moves, it changes Earth's surface.</p> </div> <div style="text-align: center;"> <p>explanation steps</p>  </div> </div>
<p><b>Closing</b> 1 minute</p>	<p><i>Today we learned about the stages of explanation. Tomorrow we will read other explanations and practice putting them in sequence.</i></p>
<p><b>Standards</b></p>	<p><b>R.6.2.b</b> Describe the relationship between a series of events, ideas, or concepts, using language that pertains to time, sequence, and cause/effect.  <b>W.3.2</b> Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.  <b>W.2</b> Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology.  <b>SL.2.2.b</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.</p>
<p><b>Ongoing assessment</b></p>	<p>Reflect on the whole group discussion.</p> <ul style="list-style-type: none"> <li>How do children explain water erosion?</li> <li>What information do they draw from the text?</li> <li>Do they include all parts of the explanation?</li> <li>What language do they use - do they repeat the language of the text, using general nouns and present tense verbs, or do they use other language?</li> </ul>

Explanation anchor chart images

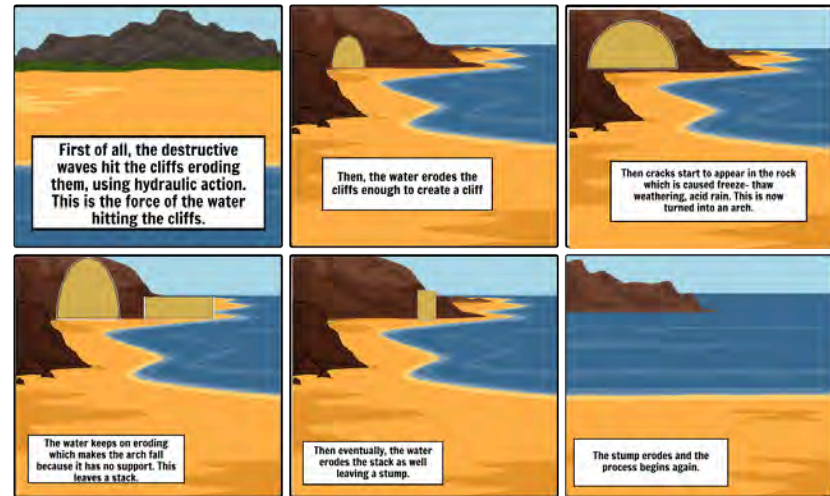
stages

phenomenon statement

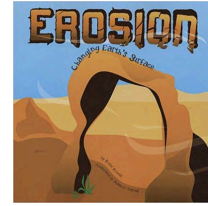


As it moves, it changes Earth's surface.

explanation steps



Create your own at Storyboard That



WEEK 5 Day 4

**Writing Explanation**  
 Joint Construction and Individual Construction: Illustrating Explanations

<b>Content Objective</b>	I can visualize how a landform has changed over time. (R.6.2.b)
<b>Language Objective</b>	I can add images to clarify an explanation. (W.2, SL.3.2.b)
<b>Vocabulary</b>	<p><b>explanation:</b> a genre of writing whose purpose is to explain a phenomenon in sequence</p> <p><b>explanation steps:</b> the phenomenon explained, in order</p> <p><b>illustration:</b> picture</p> <p><b>image:</b> a representation of something in the form of a drawing, photograph, etc.</p> <p><b>phenomenon statement:</b> the beginning of an explanation, where the phenomenon is introduced</p> <p><b>sketch:</b> a rough drawing</p> <p><b>visualize:</b> to create a mental image</p>
<b>Materials and Preparation</b>	<ul style="list-style-type: none"> <li>● <i>Erosion: Changing Earth's Surface</i>, Robin Koontz Flag page 10.</li> <li>● markers in three colors</li> <li>● chart paper</li> </ul> <p>Prepare the following Crashing Waves chart in three colors. Write the title “Crashing Waves” in one color; the phenomenon statement “Waves crash against the shore, changing its shape.” in a second color; and the text for each of the Explanation Steps in a third color.</p>

	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p style="text-align: center;"><b>Crashing Waves</b></p> <p>Waves crash against the shore, changing its shape.</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>Strong ocean waves crash against the shore.</p> </div> <div style="width: 45%;"> <p>Ocean water slowly erodes soft rock and breaks chunks off the bottom of the cliff.</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>The waves throw the loose material back at the shore.</p> </div> <div style="width: 45%;"> <p>Eventually, the cliffs break apart from the crashing.</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 150px; height: 50px; margin-bottom: 5px;"></div> </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>The waves take away pieces of the cliff and bring them to a new area.</p> </div> <div style="width: 45%;"> <p>The eroded pieces from rocky cliffs can become a sandy beach not far away.</p> </div> </div> </div>
<p><b>Opening</b> 1 minute</p>	<ul style="list-style-type: none"> <li>● pencils</li> <li>● completed Keeping Track of Landforms sheet, from Week 4, Day 2</li> <li>● Illustrating Explanations Packets A-D</li> </ul> <p>Copy and distribute one packet to each child according to the type of erosion that affected the landform for which they wrote their report (caption), using the Keeping Track of Landforms sheet for reference. Note that the children may not yet know what type of erosion affected their landform;; this connection should not be made explicitly for them. For example, the children who wrote about the Fraser River Valley should receive Packet B, about frozen water.</p> <ul style="list-style-type: none"> <li>● Water Erosion chart, from Day 3</li> </ul> <p><i>We know that images are important and that they make writing more clear. We saw this when we looked at posters earlier this week. Today we will work together as a class to sketch illustrations</i></p>

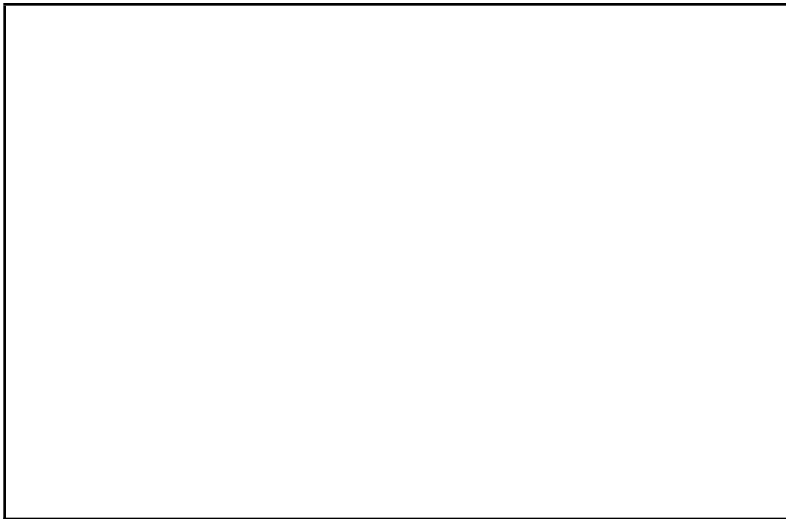
	<p><i>for an explanation. Then you will have a chance to sketch on your own.</i></p>
<p><b>Joint Construction</b> 13 minutes  page 10</p>	<p>Show <i>Erosion: Changing Earth’s Surface</i>. <i>This book is another example of an explanation.</i></p> <p><i>As I read this explanation, visualize what is happening.</i></p> <p>Read page 10. Show the Crashing Waves chart. <i>Take a look at this chart. I broke up the explanation from this book into different sections. The title here in [color] is Crashing Waves. Then, the phenomenon statement in [color] is below. It says, “Waves crash against the shore, changing its shape.” Below are each of the explanation steps, written in [color], along with a box for illustration.</i></p> <p><i>The caption for the first box reads “Strong ocean waves crash against the shore.” What could we sketch here?</i></p> <p>Collect the children’s ideas and model doing a quick pencil sketch to illustrate that part of the explanation. <i>I am drawing the cliff going down in a straight line, because that is how I imagine it looked before the waves crashed against it and cut into it.</i></p> <p>Repeat the process with the other explanation steps, for as many parts as necessary for children to understand what they will do.</p>
<p><b>Individual Construction</b> 15 minutes</p>	<p><i>Now it’s your turn. You will receive an explanation with steps written out and boxes for illustration. Sitting with your partner, follow the steps we did together. First read the explanation and visualize what is happening. Then, draw quick pencil sketches to illustrate each of the explanation steps.</i></p> <p>As children sketch, circulate to support their work. Guide children to visualize how the landform is being changed by erosion over time.</p>
<p><b>Closing</b> 1 minute</p>	<p><i>These illustrations really make the explanations more clear! Tomorrow we will begin writing an explanation together as a class.</i></p>
<p><b>Standards</b></p>	<p><b>R.6.2.b</b> Describe the relationship between a series of events, ideas, or concepts, using language that pertains to time, sequence, and cause/effect. <b>W.2</b> Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. <b>SL.3.2.b</b> Create audio/video recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when</p>

	appropriate to clarify ideas, thoughts, and feelings.
<b>Ongoing assessment</b>	Collect the packets and analyze children’s work. How closely do their illustrations match the words? How clear are their illustrations? To what extent do their illustrations demonstrate change over time?

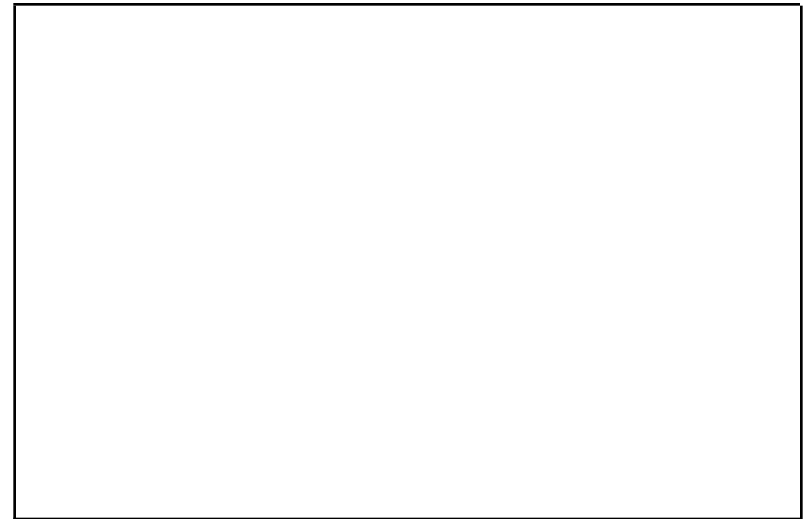
**Notes**

## Wind Erosion

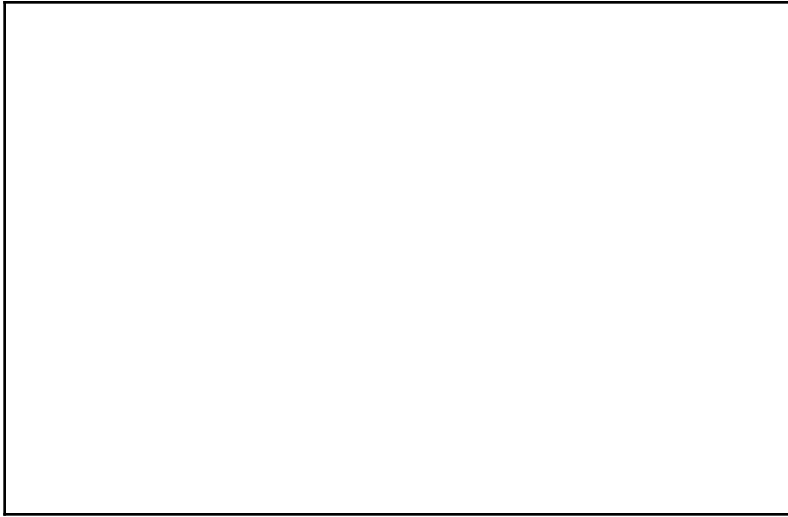
Wind wears away rock.



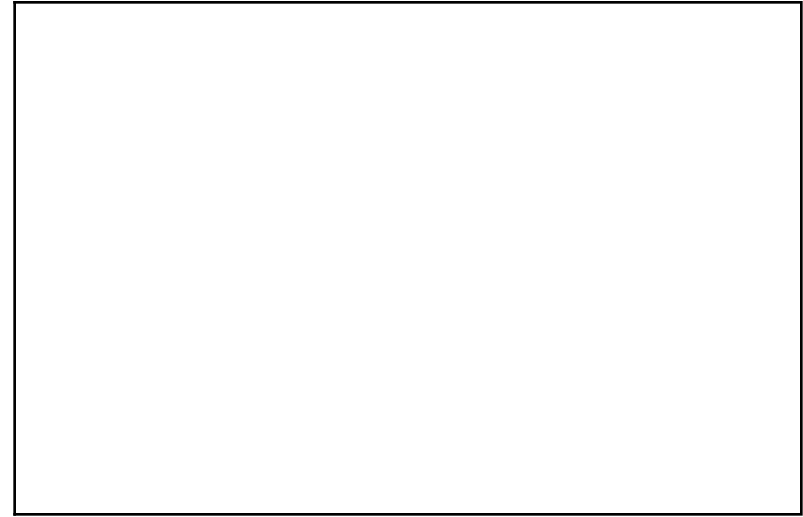
Wind picks up and moves tiny bits of rock and soil.



The tiny bits of sand and rock are carried by the wind and blow against landforms.



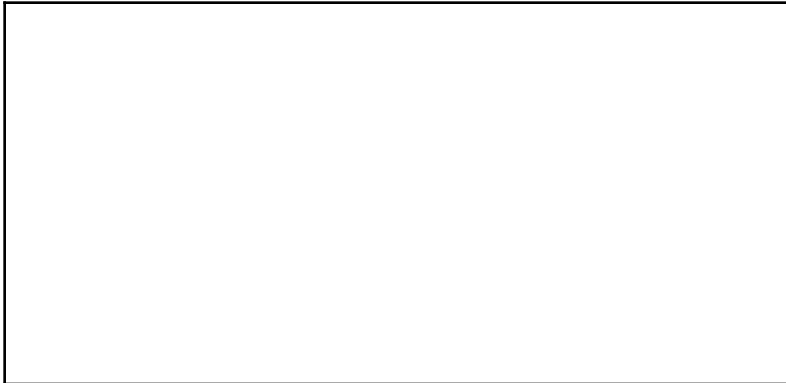
Pieces of rock break off of the landform.



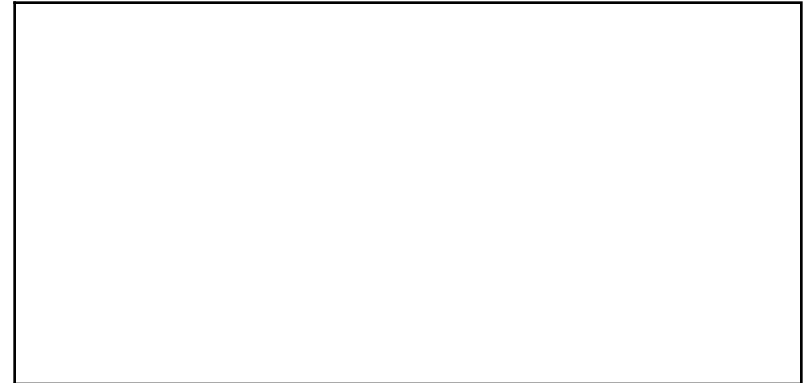
The blowing pieces of rock wear away at the landform like sandpaper.

## Frozen Water

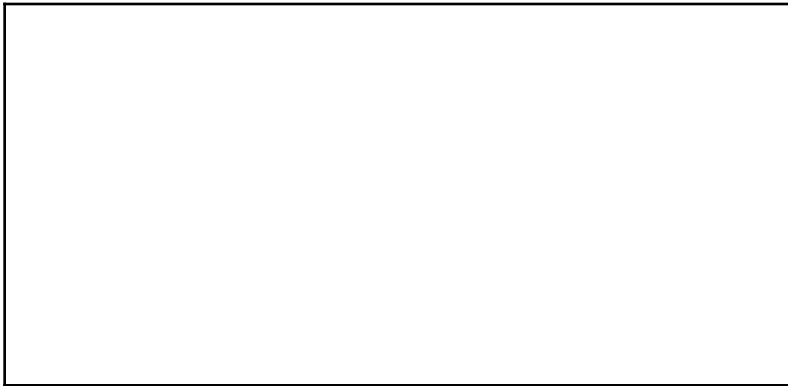
Glaciers carve out valleys.



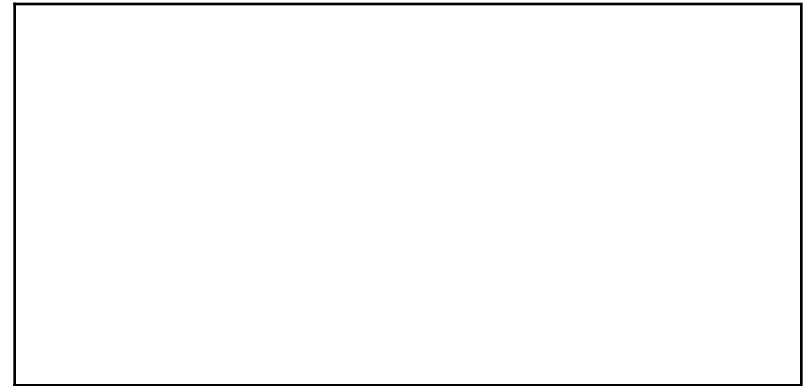
Layers of snow build up on the top of mountains.



They become so heavy, they press the bottom layers into ice, forming glaciers.



The glacier begins to slowly slide down the mountain like a river.



Glaciers carve out valleys as they move.



Everything in their path is pushed ahead of them.



Piles of soil and rock are moved by the glacier, creating new landforms when the glacier melts.

## Roaring Rivers

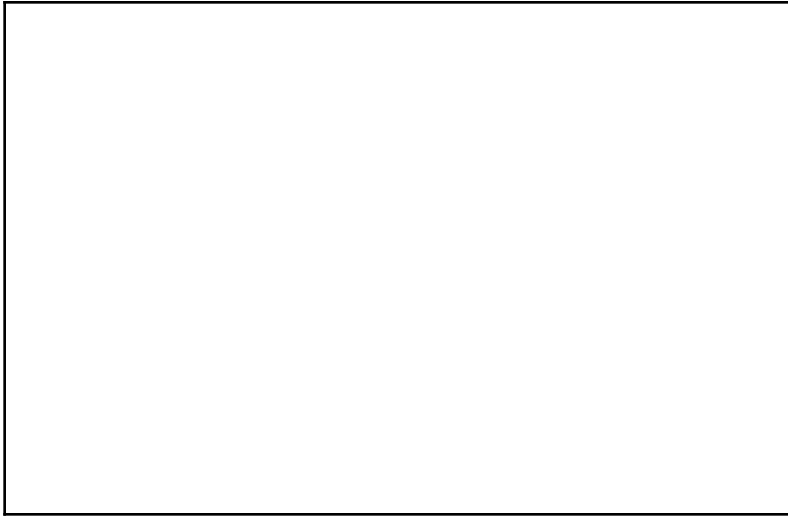
Rivers cut deep gaps through the landscape.



As they flow, rivers pick up rocks that grind along the bottom of the riverbed.



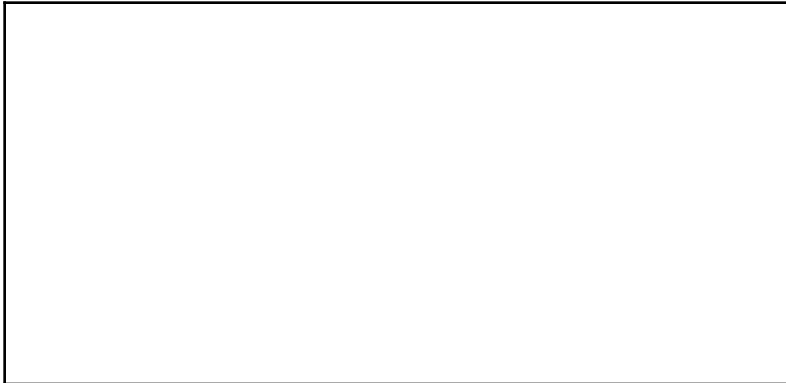
The flowing water also washes dirt from the riverbanks.



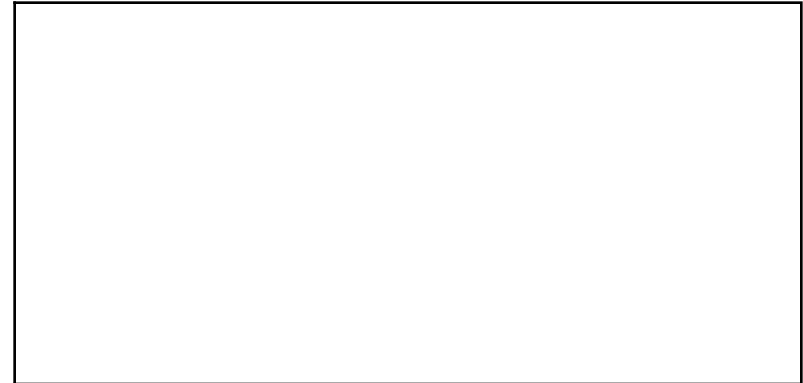
Rivers flow to the oceans and leave behind a lot of dirt.

## Crashing Waves

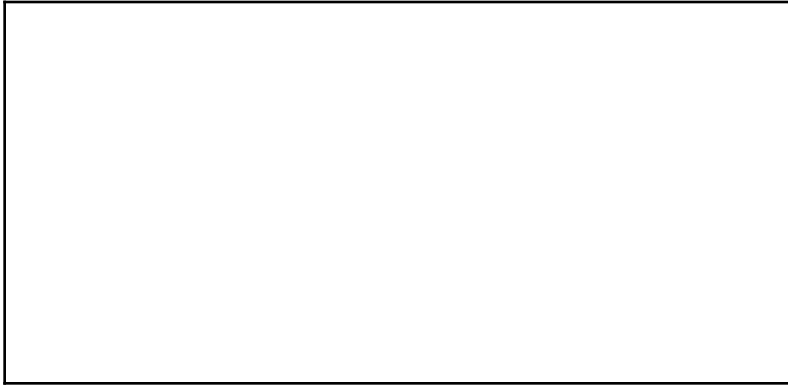
Crashing waves change shorelines.



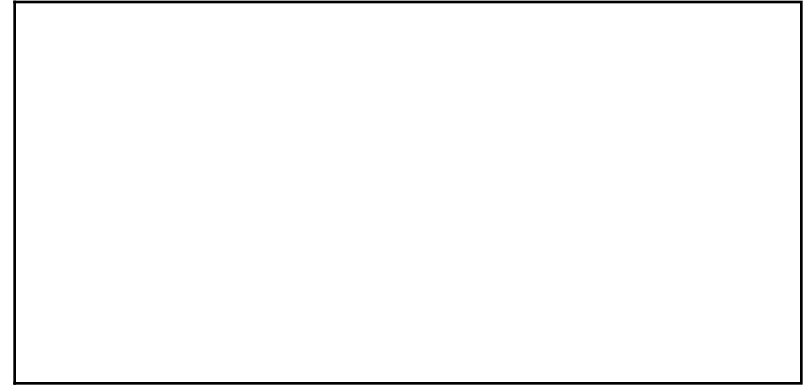
Strong ocean waves crash against the shore.



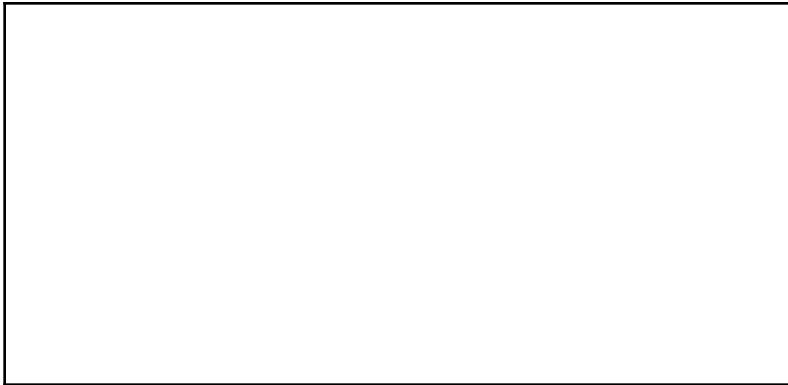
Ocean water slowly erodes soft rock and breaks chunks off the bottom of the cliff.



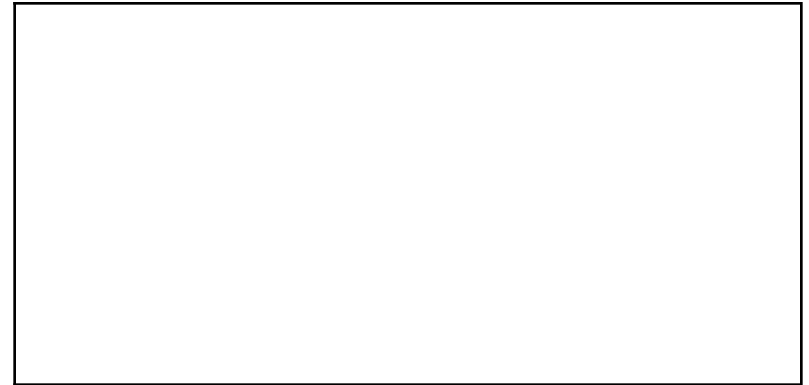
The waves throw the loose material back at the shore.



Eventually, the cliffs break apart from the crashing.

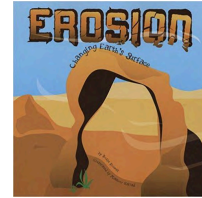


The waves take away pieces of the cliff and bring them to a new area.



The eroded pieces from rocky cliffs can become a sandy beach not far away.

Unit 2: The Forces of Wind and Water



WEEK 5 Day 5

**Writing Explanation**  
Joint Construction

<b>Content Objective</b>	I can write an explanation sequence. (W.3.2, W.2, W.1.2.a, W.1.2.b)
<b>Language Objective</b>	I can contribute to class discussions by explaining a particular type of erosion. (SL.1.2)
<b>Vocabulary</b>	<p><b>explanation:</b> a genre of writing whose purpose is to explain a phenomenon in sequence</p> <p><b>explanation steps:</b> the phenomenon explained, in order</p> <p><b>illustration:</b> picture</p> <p><b>phenomenon statement:</b> the beginning of an explanation, where the phenomenon is introduced</p> <p><b>report:</b> a genre of writing whose purpose is to organize information about a topic</p> <p><b>sequence:</b> in a particular order</p>
<b>Materials and Preparation</b>	<ul style="list-style-type: none"> <li>● class copy of the Popham Beach Caption <a href="#">slides</a>, from Week 4</li> <li>● Phenomenon Statement sheet</li> <li>● Explanation Steps sheets, about 5 half sheets for each pair of children</li> </ul> <p>Before the lesson, assign pairs of children who will be effective writing partners.</p> <ul style="list-style-type: none"> <li>● writing tools</li> <li>● <i>Erosion: Changing Earth's Surface</i>, Robin Koontz; <i>How Do Wind and Water Change Earth?</i>, Natalie Hyde; and Science and Engineering packets, available for children's reference</li> <li>● paperclips, for grouping sheets with similar ideas</li> </ul>
<b>Opening</b> 1 minute	<i>Fourth grade students will be learning about erosion this year, just like we are! We're going to give the fourth graders an introduction to erosion by making posters that explain how different types of</i>

	<p><i>erosion happen. On our posters, we'll include the reports we wrote last week as examples of erosion. Let's look at the report we wrote together.</i></p>
<p><b>Joint Construction</b> 8 minutes</p> <p>slide 2</p>	<p><i>Take a look at this photo of Popham Beach. What do you think is causing this change? Think about different types of erosion we have learned about: water erosion by rivers, glaciers, and waves, and wind erosion.</i></p> <p>Harvest the children's ideas. Discuss their thoughts and encourage them to give evidence for their choice. Come to a consensus as a class about the type of erosion affecting Popham Beach.</p>
<p>slide 5</p>	<p><i>Let's add to our caption.</i></p> <p>Write a second sentence in the Popham Beach caption, for example, "Its shape is being changed by crashing waves."</p> <p><i>Popham Beach is one place affected by the erosion. We will include our report on the explanation poster so that fourth graders can see an example of a real landform affected by erosion. Now, let's think about how waves and wind change the shape of the land and write an explanation of how this happens.</i></p>
<p><b>Joint Construction in Pairs</b> 12 minutes</p>	<p><i>Let's start by writing the phenomenon statement here. What are we trying to explain?</i></p> <p>Harvest the children's ideas and write the phenomenon statement on the Phenomenon Statement sheet, for example, "Crashing waves change shorelines."</p> <p><i><u>How</u> do waves and wind change shorelines? Think about the books we've read and the investigations we've conducted. With a partner, you are going to write the explanation steps. Write each part on one of these sheets. [Show the Explanation Steps sheet.] You can record your idea with words, or illustrations, or both! When you think you have all of the parts, work together with your partner to put them in sequence. If you need help, you can look at one of our mentor texts, or in your Science and Engineering packets.</i></p> <p>Send the children to write in pairs. If pairs are having trouble explaining erosion by waves, guide them to research resources. Support them to record their ideas with words and images and to put the steps in sequence.</p>
<p><b>Closing</b> 8 minutes</p>	<p>Bring the group back together in a circle.</p> <p><i>We are going to go around the circle to collect ideas. If you have the</i></p>

	<p><i>same idea as another pair, we will put those ideas together.</i></p> <p><i>What did you write as the first step?</i></p> <p>Choose one pair to share.</p> <p><i>Did anyone else have the same idea? You might not have used the same words, but if you have the same idea, we are going to group those ideas together.</i></p> <p>Verify that the sheets express the same ideas and collect them into one pile. Paperclip the sheets together and write the number 1 in pencil on the top sheet.</p> <p>Continue the process of explaining the steps in order and grouping sheets that express the same ideas, until all sheets have been collected.</p> <p><i>Today we worked together to write an explanation. Next time we will review and revise our work.</i></p>
<b>Standards</b>	<p><b>W.3.2</b> Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p><b>W.2</b> Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology.</p> <p><b>W.1.2.a</b> Investigate questions by participating in shared research and writing projects.</p> <p><b>W.1.2.b</b> Gather information from provided sources and/or recall information from experiences in order to answer questions.</p> <p><b>SL.1.2</b> Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p>
<b>Ongoing assessment</b>	<p>Review the sticky notes to find class trends.</p> <p>Are all of the explanation steps included?</p> <p>What language do the children use?</p> <p>Do they use present tense action verbs?</p> <p>Do they use general nouns?</p> <p>Do they use any adjectives?</p> <p>Do children use illustrations?</p> <p>If so, are they clear?</p> <p>Do they match the words?</p> <p>Do they show change over time?</p>

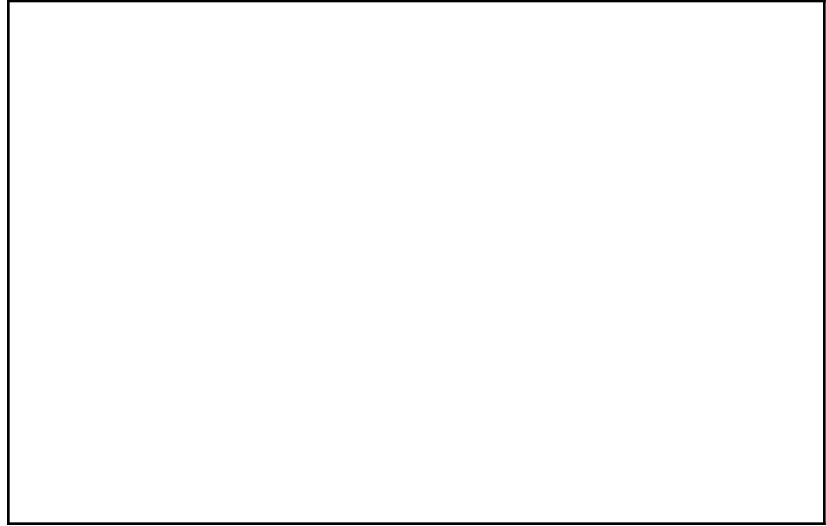
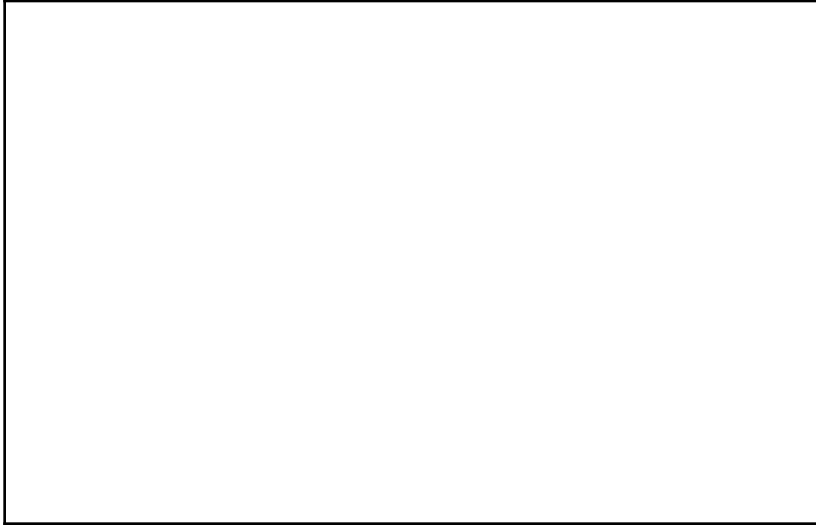
Phenomenon Statement

---

---

---

Explanation Steps



---

---

---

---

---

---

---

---

---

---

---

---