

Unit 2: The Forces of Wind and Water

WEEK 6 Day 4



Text Talk What Can Grass Do? (slides)

Big Idea	Wind and water can change the shape of the land.
Weekly Question	How do people interact with the land?
Content Objectives	I can use images to describe the effects of wind on land and explain how planting grass can slow or prevent erosion. (R.11.2.c, R.11.2.d, 2-ESS2-1) I can identify ways that humans can slow down and prevent erosion. (2.T2.4)
Language Objective	I can use content-specific vocabulary to describe and explain the effects of wind on land. (L.2.6)
SEL Objective	I can actively listen to my peers and agree with, disagree with, or build onto their thinking. (Relationship Skills)
Vocabulary	discover: to find something for the first time grass: plants that have narrow green leaves, that are eaten by cows, sheep, horses, and other grazing animals., and that are commonly grown on lawns prairie: a large, mostly flat area of land in North America that has few trees and is covered in grasses root: the part of a plant that grows underground, gets water from the ground, and holds the plant in place sand: tiny pieces of rock
Materials and Preparation	• What Can Grass Do? slides • projector and screen • world map and pushpins • United States map • Slowing and Preventing Erosion charts completed thus far

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	Note: Only the Planting example is needed, but having all of the charts available gives the children the opportunity to select this one purposefully. • marker • Examples of Approaches to Slowing and Preventing Erosion from Day 2: four examples of planting • glue stick • Text Talk Notebooks • pencils and colored pencils
Opening 1 minute slide 1	<i>One thing people do to protect land from wind and water erosion is to plant grass. Does that idea sound familiar to you? Let's think about how this works.</i>
Text and Discussion 20 minutes slide 2	As slides are shown and children discuss in pairs. Harvest ideas in the whole group to surface important vocabulary and consolidate knowledge. <i>Why do you think this sign is here?</i> Harvest a few ideas, and then continue without offering an explanation; this understanding will emerge as the lesson unfolds.
slide 3	Turn and talk. <i>Can you imagine what happens to this beach when a strong wind comes along? What about very strong waves?</i> <i>This beach is in Kennebunk. Raise your hand if you've been there.</i>
slide 4	Show Cape Cod on the United States map. Point out its proximity to Maine. Distribute Text Talk notebooks and pencils. <i>What's going on here? What do you notice about the grass on the beach? What else do you notice? Write a few notes about what you see in your notebooks.</i> Give children a couple of minutes to write, and then invite a few children to share what they wrote. Encourage children to use hand signals to show agreement.
slide 5	<i>Turn and talk. What's going on here?</i>
slide 6	Take a Note Break. <i>These people are planting grass on the beach. What do you think they are hoping will happen?</i> Give children a couple of minutes to write, and then invite a few children to share what they wrote. Encourage children to use hand signals to show

	agreement.
slide 7	<i>Many kinds of beach grass have roots that spread out underground. What do roots do for plants?</i> Harvest a few ideas, and then explain. <i>These spreading roots help to keep the plants in place, and the plants help to keep the sand in place.</i>
slide 8	<i>Turn and talk. What do you notice about this grass?</i> <i>This is a very different kind of grass, growing in the western part of the United States.</i>
slide 9	Point out South Dakota. <i>The state of South Dakota has a lot of open, flat land; it can be very windy here. Prairie grasses grow naturally in this part of the country.</i>
slide 10	<i>Look at what long roots these plants have! They reach way down into the soil.</i> <i>Turn and talk. Why might it be useful for the grasses in a windy place to have long roots?</i>
slide 11	<i>Sometimes cattle eat too much grass in one place. The animals eat and eat and eat, until the grass isn't able to grow anymore. With no plants growing with long roots to keep the ground in place, with dry summers and strong winds, we sometimes get dust storms in prairies. Yesterday, we read briefly about the Dust Bowl. Over 80 years ago in the United States, lots of land was destroyed because there was no grass to keep it in place. People had to move, because they couldn't grow food.</i>
slide 12	<i>This taught farmers and other people some important lessons about how to take care of our land. This photograph was taken by Dorothea Lange, an important American photographer. She was part of a team of photographers and writers who set out to document people's lives across the United States.</i>
slide 13	Chorally read the text. <i>How does planting grass help to slow down and prevent erosion?</i> Harvest several ideas, encouraging children to reference each other's comments using established discussion prompts.
slide 14	<i>People plant grasses to prevent erosion all over the world. This farmer is in Vietnam, a country on the continent of Asia. He is</i>

	<i>growing cassava, a vegetable that many people depend on. His farmland is very hilly, so the soil can run right down. He plants the grass in between the cassava plants to keep the soil and the plants in place.</i> Point out Asia and then Vietnam on the world map. Add a pushpin. <i>Let's read the caption.</i> <i>This grass is doing two important jobs: keeping the land in place for the farmer's cassava plants, and feeding his cattle.</i>
slide 15	<i>In other places, too, farmers plant grass between plants grown for food. This farmer is far away from both the United States and Vietnam: in Kenya, a country on the continent of Africa.</i> Point out Africa and then Kenya on the world map. Add a pushpin. <i>People all over the world have discovered that planting grass with long, strong roots helps the land stay in place.</i> <i>Let's think about the approach to erosion we have been talking about today: planting grass.</i> <i>We have two charts so far: one about putting up barriers, and one about planting. Where does this example go?</i> Once children identify the planting chart as appropriate, add all four places explored in the slides: Cape Cod - beach, South Dakota - prairie, Vietnam - farm, and Kenya - farm.
Key Activity 18 minutes	Distribute the writing sheets and colored pencils. Read the directions. Allow time for children to draw and write their captions. Have children leave their sheets around the meeting area or tables (wherever they have been writing), and invite them to walk around to look at the drawings and captions. <i>As you look at your classmates' drawings and captions, think about what is similar and what is different from your own work. What did others include that you did not? What details seem very important?</i> Gather the group back together. <i>What did you notice about your classmates' drawings and captions?</i> Harvest several ideas, highlighting children's efforts at capturing specific elements in drawing and writing and making connections to the Weekly Question, How do people interact with the land? <i>We are learning that there are different ways that humans can help</i>

	<i>to slow down and prevent erosion.</i>
Closing 1 minute	<i>Today we identified new ways to slow or prevent erosion and added to our chart. We'll compare our slowing and preventing erosion charts next week.</i>
Standards (Boston)	R.11.2.c Explain how specific visuals contribute to and clarify the meaning of a text. R.11.2.d Compare and contrast the information presented by two texts on the same topic. L.6.2.a Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy, that makes me happy). 2-ESS2-1. Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. 2.T2.4 Explain and describe human interaction with the physical world (the environment). SEL.Relationship Skills
Ongoing assessment	Reflect on children's contributions to the class discussion. Review their writing Do children discern how different situations require different approaches to slowing and preventing erosion? Do children articulate differences between the effects of wind and water on land? What do children understand now about what makes a landscape vulnerable to erosion (by wind or water)? Make notes about misconceptions and questions children have, as well as about understandings that seem to be solidly developing.

Notes