

Lesson Title: Weathering and Erosion
 Grade and Subject: 6th grade Earth Science

Date:

1. LESSON PLAN LEARNING OUTCOMES AND PROCEDURE		
Essential Question(s) / Central Focus	How are weathering and erosion different? How are weathering and erosion related? How does the formation of soil relate to the processes of weathering and erosion?	
Learning Objective(s)	Students will be able to... Explain the effects of human activity on the erosion of the earth's surface Explain physical process (erosion) on geological features Describe the process that change rocks and the surface of earth	
CCGPS or GPS Standard(s)	S6E5. Students will investigate the scientific view of how the earth's surface is formed. d. Describe processes that change rocks and the surface of the earth. f. Explain the effects of physical processes (plate tectonics, erosion, deposition, volcanic eruption, gravity) on geological features including oceans (composition, currents, and tides). h. Describe soil as consisting of weathered rocks and decomposed organic material. i. Explain the effects of human activity on the erosion of the earth's surface	
Instructional Strategies & Learning Tasks that Support Diverse Student Needs	Introduction to Lesson	<u>Activating Strategy/Sponge</u> (<i>Informal Assessment</i>) As a sponge, students will create a KWL chart, in their interactive notebooks, on weathering and erosion. The teacher will explain to the students that they are only to complete the K and W sections of the chart. After allowing time for the students to complete both sections, the class will discuss what was written on their charts.
	Body of Lesson	<u>I Do (Modeling)</u> The teacher will show students a video from YouTube on weathering and erosion. As the video is playing, the students should take detailed notes on some facts that they came across in the video. After the video has finished playing, the class will discuss some of the facts that were presented in the video. After the discussion, the teacher will explain to the students that they will create two different erosion demonstrations. <u>We Do (Guided Practice)</u> The teacher will pass out the materials (sugar cubes, gravel, and small jars) for the first erosion demonstration. After all material have been passed out to the students, the teacher and class will place sugar cubes and gravel into a small jar. The class will first observe and draw what they see then shake the jar vigorously for at least 5 minutes. After completing the experiment students should follow the worksheet provided, draw what they observe and after they have completed the experiment should answer the appropriate questions. After allowing time for the class to complete the activity, the teacher will start a discussion about what the class observed.

		<p><u>You Do (Collaborative Practice)</u> After the discussion has ended, the teacher will pass out the materials for the next demonstration. While passing out the materials, the teacher will explain to the students that they will be creating a beach erosion for the next demonstration. Each group of students will be given a bag with 4 containers of play dough, 6 foam sheets, 25 popsicle sticks, and a large paint pan. Each group of students will be given enough sand to fill up one side of the container and enough water to fill the other side. This combination of sand and water will be used to represent a beach. To replicate the erosion process students will be instructed to carefully move the pan back and forth to create a wave like motion in the water. Students Should observe what happens to the sand and answer appropriate questions. After students replicate coastal erosion they will have a straw to replicate wind erosion. After students observe the erosion process they will be instructed to come up with a plan and create a model to show how they can stop or slow down the process of both wind and beach erosion. At the end of the experiment student groups will present their plan and model to the class.</p>
	Closure	<p><u>Exit Ticket (Informal Assessment)</u> For the exit ticket, the students will complete the L portion of the KWL and discuss what they have learned. After the discussion students will write a short letter to the president explaining why the government should put more money into helping fight erosion.</p> <p><u>Homework (Formal Assessment)</u> Research and write an 1 page report on ways to slow the process of costal erosion</p>
	Learning Supports: Differentiation, Modification(s) and Accommodation(s)	<p>Student A, B, C, and D all have reading comprehension needs. All directions will be read aloud to the students and repeated multiple times. All text will be simplified to match the learner’s needs.</p> <p>Student A is an ESOL learner. To accommodate this student, I will provide this student with explicit instructions and allowing the student to participate in hands-on activities.</p>
	Formal and Informal Assessment	<p>Formal Assessment: A formal assessment is found in the closure of the lesson. As homework students have to write a report on how to slow the process of erosion, this assesses what the students have learned from the lesson.</p> <p>Informal Assessment: Informal assessments were found throughout the lesson. One informal assessment that was given was for students to complete the KWL chart.</p>
2. RESOURCES		
Academic	Language Functions	Students are expected to explain the physical process of erosion.
	Vocabulary	Students are expected to explain the physical process of erosion by using the following vocabulary words when speaking: Erosion, Weathering, Geological, Earth Surface

	Syntax or Discourse	Students will use appropriate vocabulary when explaining the process of erosion.
Materials	<ul style="list-style-type: none"> Sugar Cubes Small Jars Gravel Large Paint Pan Water Sand Foam Sheet Play Dough Popsicle Sticks Straws Worksheet with probing questions 	
Technology	Promethean board is used to show student videos from YouTube	