

EROSION

Subject

Basic Science

Prepared By

[Instructor Name]

Grade Level

4

Overview

This lesson plan covers teaching content for;

1. Causes of erosion
2. Effects of erosion
3. Control of erosion

Objectives

Students should be able to;

1. Define erosion.
2. State the causes of erosion.
3. Explain the effects of erosion.
4. Describe how erosion can be controlled.

Activity Starter/Instruction

- 1 For this activity divide the class into 2 groups, each group with 2 jars.
- 2 Ask each group to pour one cup of cold water into both jars.
- 3 Add in both jars one piece of M&Ms, soft candy (like parago or kelifa) and hard candy (like lemon plus). Making it 3 candies in a jar. The candy represents sedimentary (soft candy), igneous (M&M), and metamorphic (hard candy) rocks.
- 4 Add the lid and be sure it is REALLY tight. You may want to give it a little check before the kids start shaking the jar.
- 5 **Shake (representing fast moving water) only ONE jar. The second jar is the control.** Kids can take turns shaking the jar. As they do you can talk a little about how rivers have fast moving water. We shook our jars until the kids were tired, but a couple minutes should be plenty.
- 6 After all the shaking is done with the test jar, pull the candy out of both jars. Notice how the candy in the control jar did not

Teacher Guide

Day 1/ Lesson 1: 15 Mins

- 1.Students will use a cup to build a simple sandcastle.
- 2.Ask them to spray water on the sand castle using a spray bottle with water in it.
- 3.Tell them to observe the changes
- 4.Do a few times with the spray bottle and then a few times with the direct squirt line from the bottle. (The water will make holes in the sand castle).
- 5.Next, they will pour water over it from a cup and observe the changes how the cup of water washed down the sand castle. They can talk about the differences in the effects and why each was different.

Guided Practice

Day 3/ Lesson 3: 15 Mins

1. Get two aluminum/ plastic square shaped pan/bowl. Label one "with grass" and the other "without grass".
2. Fill the left side of each pan/bowl with sand making a sand hill leaving the right side empty.

Materials Required

- Jars
- Water
- Candies: m&m, soft candy, hard candy
- Sand
- Cup
- Small wide bowl
- Straw
- Grass

Additional Resources

- <https://study.com/academy/lesson/erosion-kids-definition-facts-types.html>
- <http://www.thefirstgraderoundup.com/201/erosion-stations.html?m=1>
- <https://www.rootwell.com/blogs/5-effective-control-erosion>
- <https://www.slideshare.net/AislingMOConn/erosion-and-conservation-32294374>

Additional Notes

	<p>change much, but the candy in the test jar was much smaller. You can also discuss how different type rocks erode faster.</p> <p>Guided Practice</p> <p>Day 2/ Lesson 2: 15 Mins</p> <ol style="list-style-type: none"> 1.Students will use a cup of sand to build a simple sandcastle. 2.They should use a straw to blow air into the sand castle to mimic wind. 3.They should try this experiment with 3 different sizes of straws. 4.The students should observe and record any changes they see. To add to this station, put straws of different diameters and let each person try a different straw. (NO STRAW SHARING) 5. They can talk about the differences in the effects and why each was different. 6. Notice how the larger the diameter of the straw is the higher the amount of air that passes through the straw to erode the sand. 	<ol style="list-style-type: none"> 3. Put a lot of grass on the sand hill with container labelled “with grass”. 4. Sprinkle water (like rain) on the sand hill in the pan/bowl with grass and without grass. 5.Much less soil will be lost on the grass filled hill when compared to the bare hill. 6. Students should record their observation in words and drawing.
	<p>Assessment Activity</p> <p>Assess if pupils can:</p> <ol style="list-style-type: none"> 1. Define erosion. 2. List the causes of erosion. 	<p>Assessment Activity</p> <p>Assess if pupils can:</p> <ol style="list-style-type: none"> 1.Describe the effect of erosion. 2. Explain how plant can control erosion.
	<p>Summary</p> <ol style="list-style-type: none"> 1. 	
