

Earth Science Lesson: April 09, 2020

Objective/Learning Target: Student will be able to explain the process of soil formation and explain soil texture.

Warm Up

To start, let's look back at some important prior learning:

- 1) Weathering is the process of breaking down of rocks, and minerals- forming sediments
- 2) Erosion involves the movement of sediments, wind and water are two common erosion agents

These concepts will play a role in today's lesson

Warm Up

Have you ever thought about soil?



You surely have experienced soil before, but what is it made of? Where did it come from?

This lesson will teach you where soil comes from and how you can classify soil into different grades.

So how does soil form?

To to explain this concept, there are a few activities you can choose from...

- 1) Watch a video over soil formation: <u>Click here for this option</u>
- 2) Read about soil formation: <u>Click here for this option</u> (English & Spanish narration is included)
- 3) Use Flashcards to learn soil formation and texture: Click here for this option

Practice:

Complete the following questions on your own sheet of paper.

- 1. How does weathering contribute to soil?
- 2. What is soil?
- 3. How does water help create soil?
- 4. How can plants help create soil?

Practice:

Answers

- 1. Weathering causes the breakdown of rocks which leaves tiny debris behind creating soil.
- 2. Soil is tiny debris left over from the weathering of rocks
- 3. Water gets into cracks and freezes. The water the expands pushing the rock until it breaks.
- 4. Plants begin growing on the rock pushing the roots into the rock until it forces it to split.

Extra Practice: Reading the Soil Texture Chart

The chart on the right is commonly used to classify soil. This chart explains how scientists classify soils.

Check out this video to learn more of how to read the chart: <u>Video on Soil Texture Chart</u>

After watching the video, use this link to practice using the chart: <u>Soil Texture Chart Practice</u>

Once you have done that, think about what kind of soil you have in your own backyard.



Extra Resources

Use this video if you are still struggling to understand soil formation as it goes into a little more detail.

Soil Formation- https://www.youtube.com/watch?v=mg7XSjcnZQM

Sometimes a little extra practice helps.

Click HERE to open a ProProfs Quiz over soil formation.