

DIY Sediment Jar

What is sediment? 1. Matter that settles to the bottom of a liquid. 2. Material that has been deposited from water, ice, or wind. *Sediment* is solid material that is moved and deposited in a new location. *Sediment* can consist of rocks and minerals, as well as the remains of plants and animals. It can be as small as a grain of sand or as large as a boulder. ... Erosion can move *sediment* through water, ice, or wind.

To demonstrate sediment make your own sediment jar to see what is in your soil. Fill your jar about half full of soil and then add water, shake and wait. The larger sediment will fall to the bottom. At the bottom of the jar, you'll see gravel {large rocks}. Next, you'll see sand, then silt, then clay, then humus {decaying matter}. The types of sediments are named based on their particle size. The smaller sediments are at the top of the jar. The amount of each type of sediment depends on what type of soil you have.

Over time, soil layers will become visible. Gravel will fall first; then sand, silt, and clay; organic matter (leaves, twigs, stems) will remain floating in the water.

Describe the soil: What color is it? How does it smell? How does it feel?

Which sediments do you have in your soil sample?

What do you have the most of?

How does sediment affect water quality?

DIY – Sediment Jar

Supplies:

- Clear jar with lid (plastic is the safer choice, glass can break)
- Soil
- Shovel
- Water



Directions:



1. Find a place to scoop up some soil. Make sure it is okay to take the soil from this spot. Choose a spot that will have various kinds of soil.
2. Fill your jar about half full with soil. ½ cup
3. Add water to your jar. (Fill almost to the top.) 2 cups
4. Place a lid on your jar and shake.
5. Watch the sediment fall

Make A Prediction:

What will happen when the jar is shaken and the matter & water inside the jar settles for a few hours? Allow the jar to sit undisturbed for at least a day. {Check in every once in a while to see how the jar has changed.}

Students, draw a picture of the layers formed inside the sediment jar.

**What You Should Notice:**

The sediments will form layers as they fall in the jar. The largest sediments fall out of the water first. As time goes on, more and more sediments fall out of the water. At the bottom of the jar, you'll see gravel {large rocks}. Next, you'll see sand, then silt, then clay, then humus {decaying matter}. The types of sediments are named based on their particle size. The smaller sediments are at the top of the jar. The amount of each type of sediment depends on what type of soil you have.



Dig Deeper: Students can also collect and test soil samples from other areas (forest, field, and yard) for comparison. Get permission before taking soil samples.

Alternative Ingredients

Using kitchen ingredients such as beans, rice, flour and water can also be used to represent matter in sediment. <https://www.youtube.com/watch?v=O5UdYu0JJqgsee>