



BRITISH  
SOCIETY  
OF SOIL  
SCIENCE



# The Jam Jar Experiment



## OBJECTIVE

This experiment aims to introduce all the things that soil is made of and how they behave in water. Soil is made up of lots of building blocks that do lots of things... can you guess what will happen?

## EQUIPMENT

- Small jam jar for your soil
- Extra jam jar or glass
- Soil from your garden
- Water
- Stirring stick

## INSTRUCTIONS



- 1** Take a clean, straight sided jam jar and fill it about a third of the way up with your soil. Have your other jar/glass of clean water, and your stirring stick ready.
- 2** Now add the clear water until the jar of soil is almost full. First, just watch the mixture for a while - do you see air bubbles rising? How much air is there in the soil? Now stir up the mixture vigorously to break up clumps, then leave the jar for 2 or 3 hours till the contents settle out and the water starts to clear.



- 3** When the water settles, different layers should appear. Sand particles are the biggest and weigh more than silt - so the bottom layer will be the sand part of the soil. Any pebbles will also be at the bottom. Next up is the silt layer. Silt particles are smaller than sand and weigh less, so they appear on top of the sand. If you were able to separate out any clay particles, they are the smallest and will be on top of the silt. Organic plant materials will be at the very top.

**What happened to your soil? Did you see sand?  
Did you see silt? Did you see clay?**

Let us know what you discovered, and find out more by scanning here



**WE WOULD LOVE TO HEAR FROM YOU!**

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