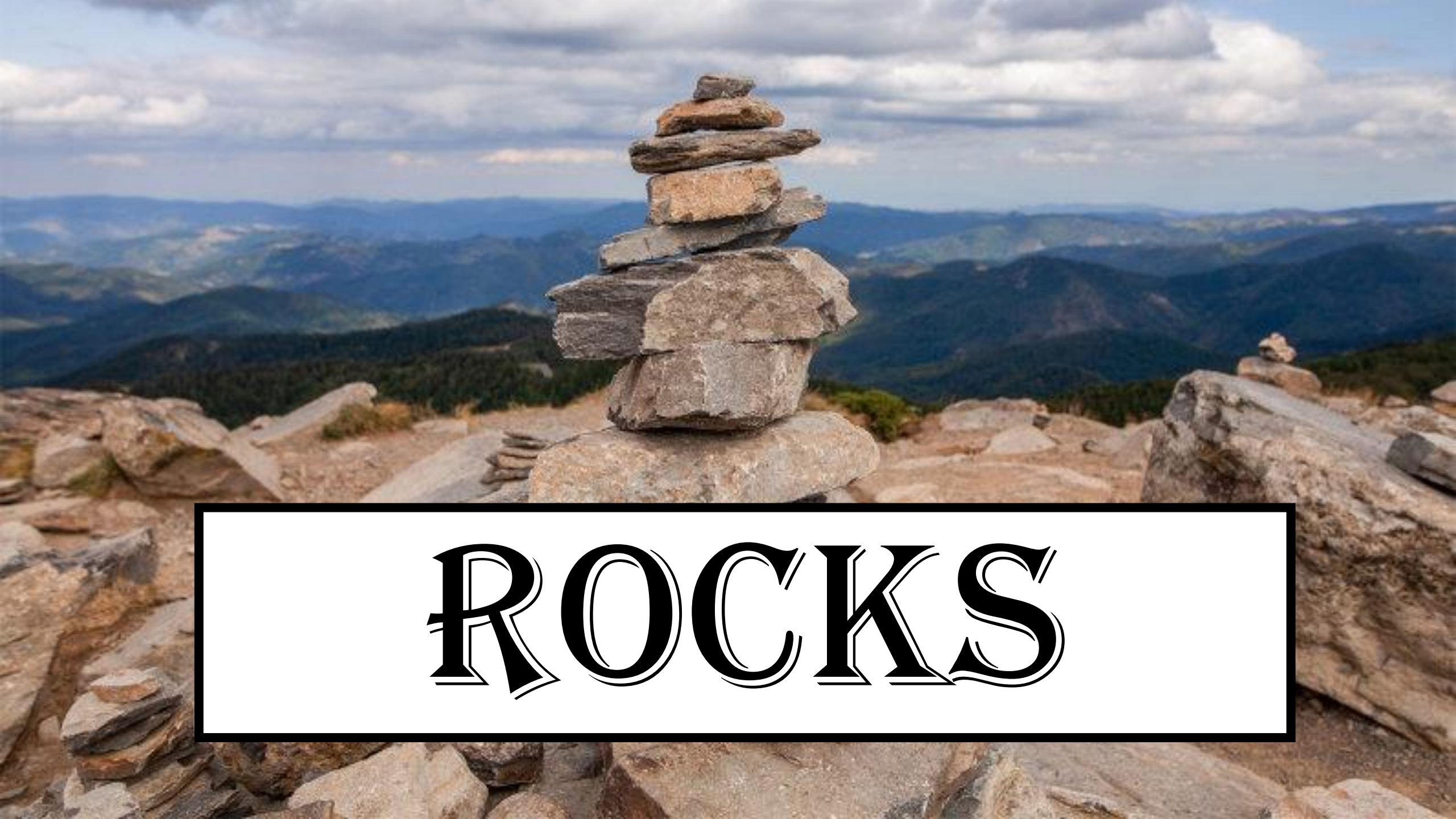
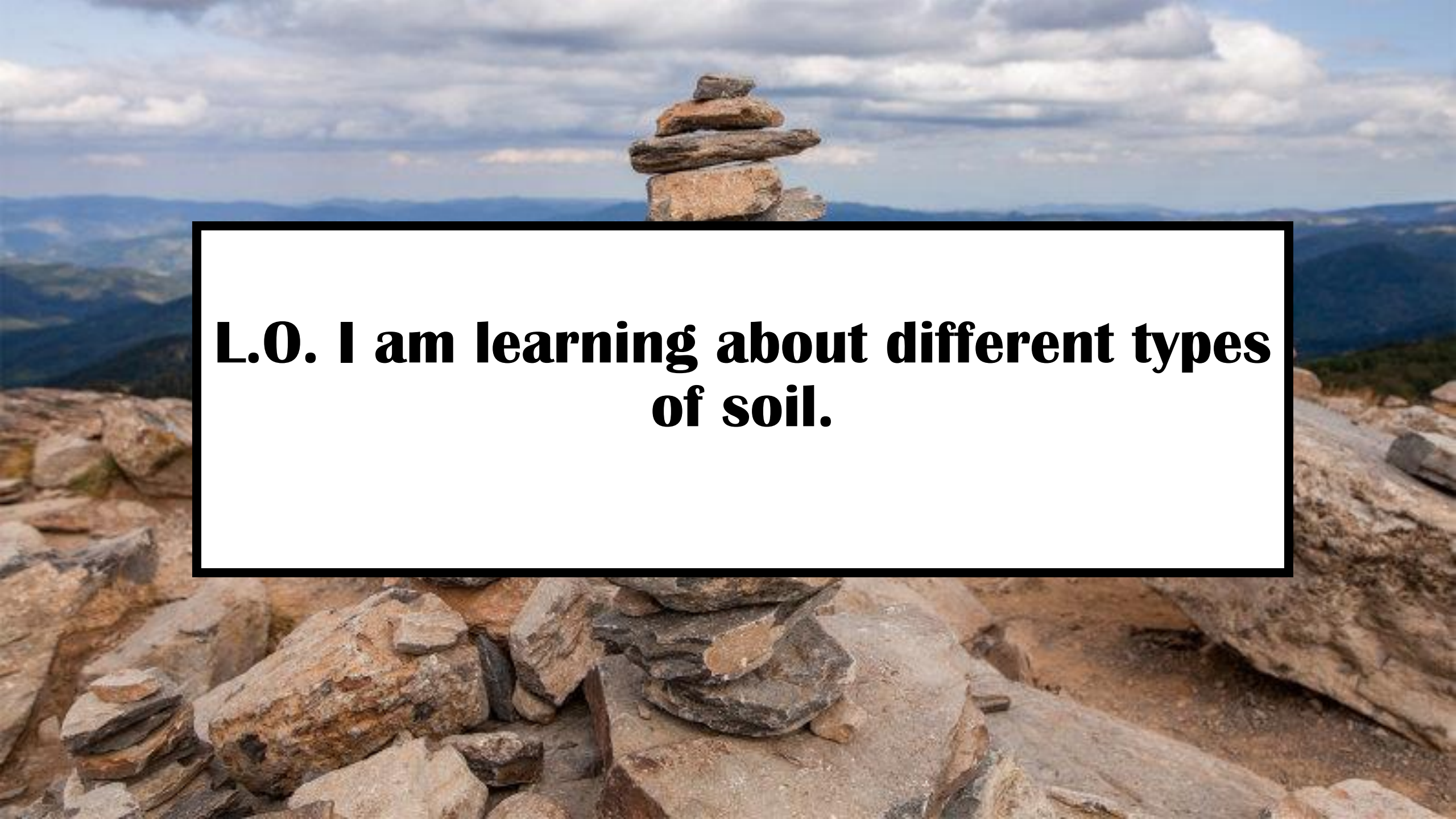


A tall, balanced stack of rocks on a mountain peak. The stack is composed of several layers of flat, light-colored stones, with a few darker stones interspersed. The background shows a vast, hazy valley with rolling hills and mountains under a cloudy sky. The foreground consists of more rocks and a dirt path.

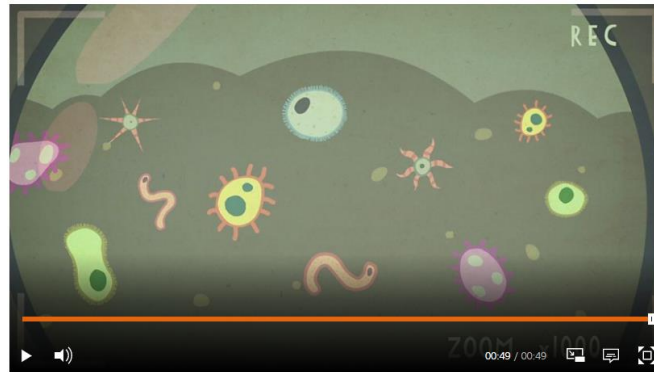
ROCKS

A scenic mountain landscape with a stone cairn in the foreground and a text box in the center. The background shows rolling hills and a cloudy sky. The foreground is filled with various types of rocks and stones, some stacked in small piles. The text box is white with a black border and contains the text "L.O. I am learning about different types of soil." in bold black font.

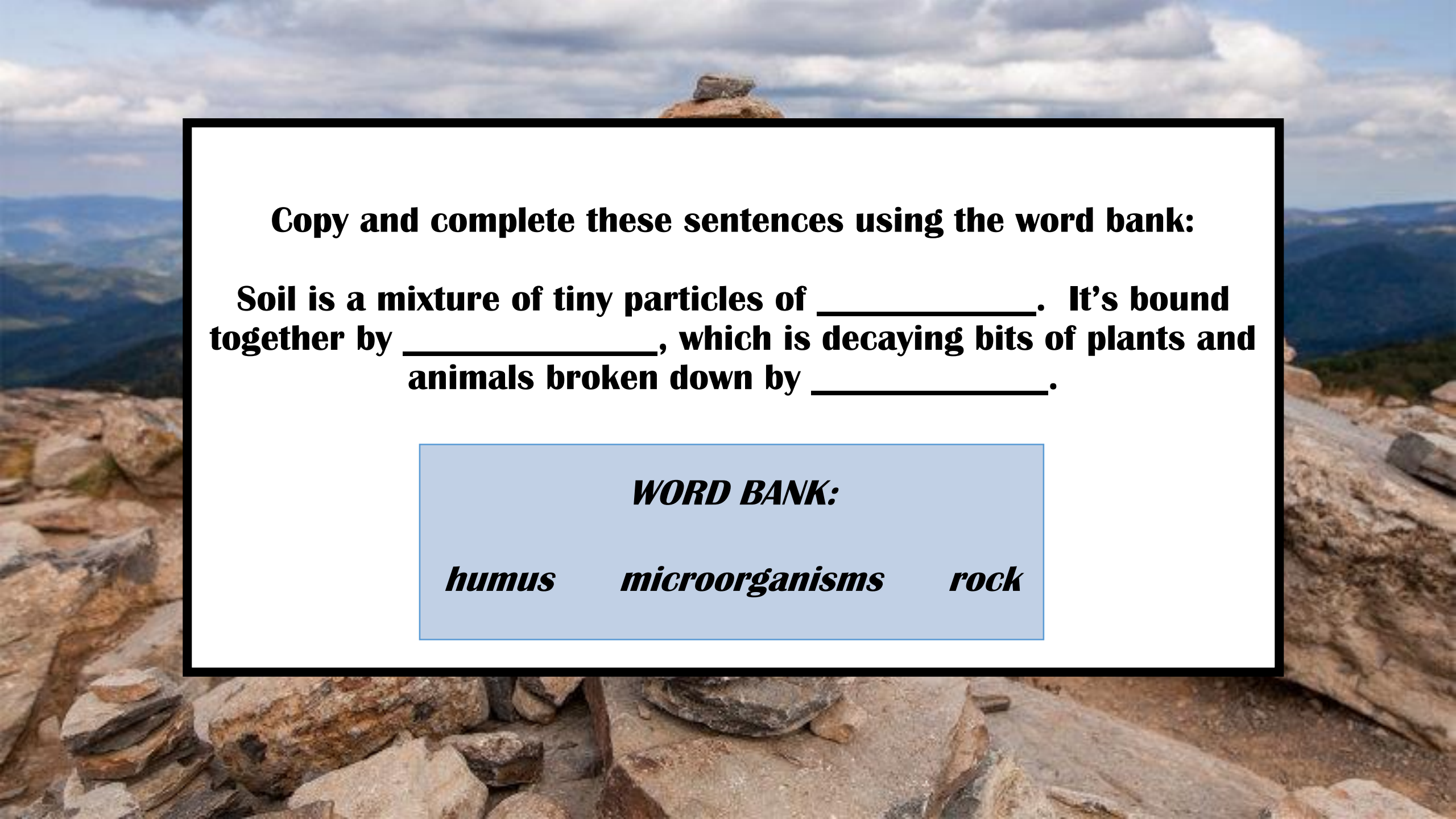
L.O. I am learning about different types of soil.

What is a soil?

Click the
image for a
video link.



Soil is a mixture of tiny particles of rock, dead plants and animals, air and water.

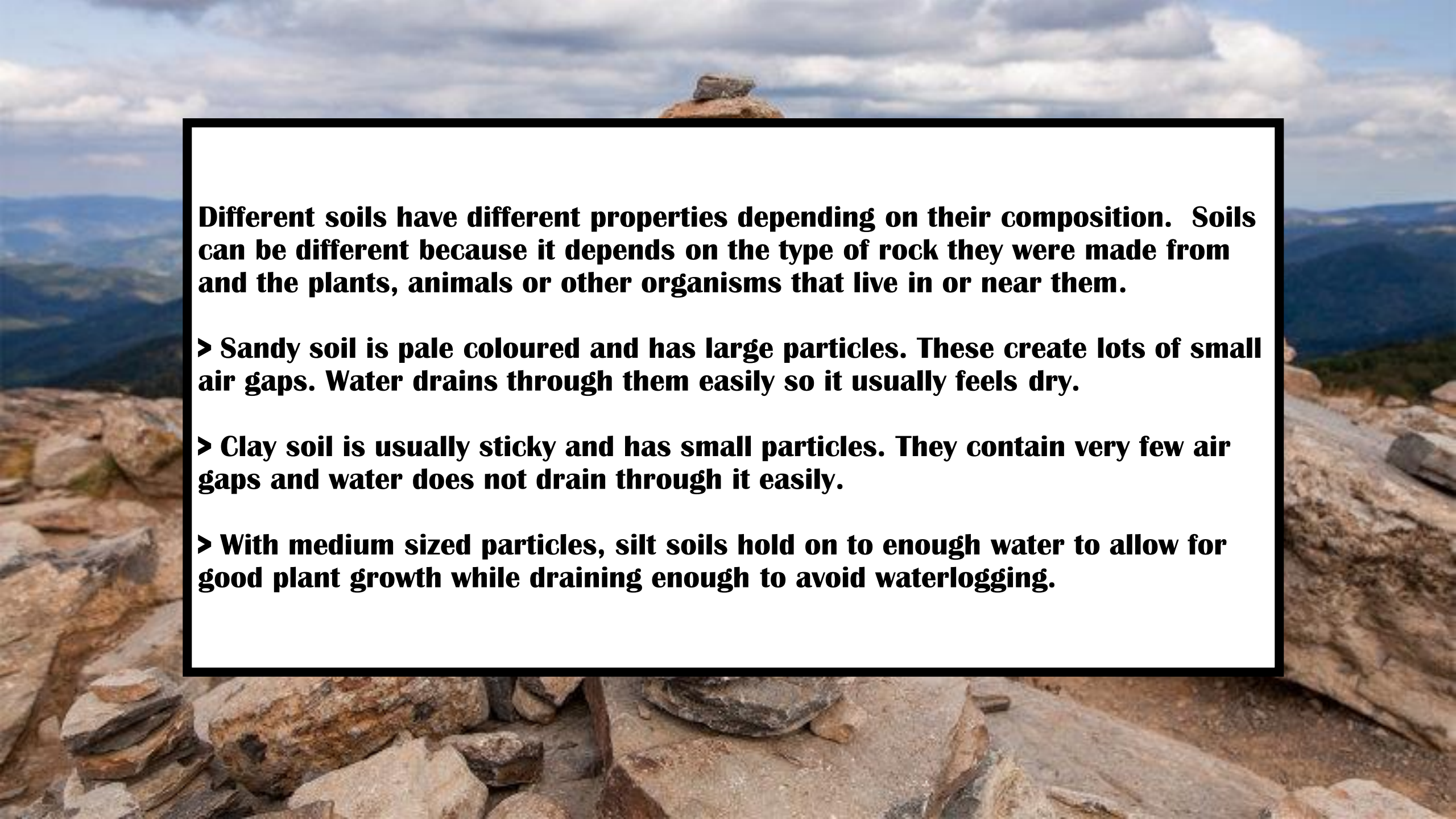


Copy and complete these sentences using the word bank:

Soil is a mixture of tiny particles of _____. It's bound together by _____, which is decaying bits of plants and animals broken down by _____.

WORD BANK:

humus microorganisms rock

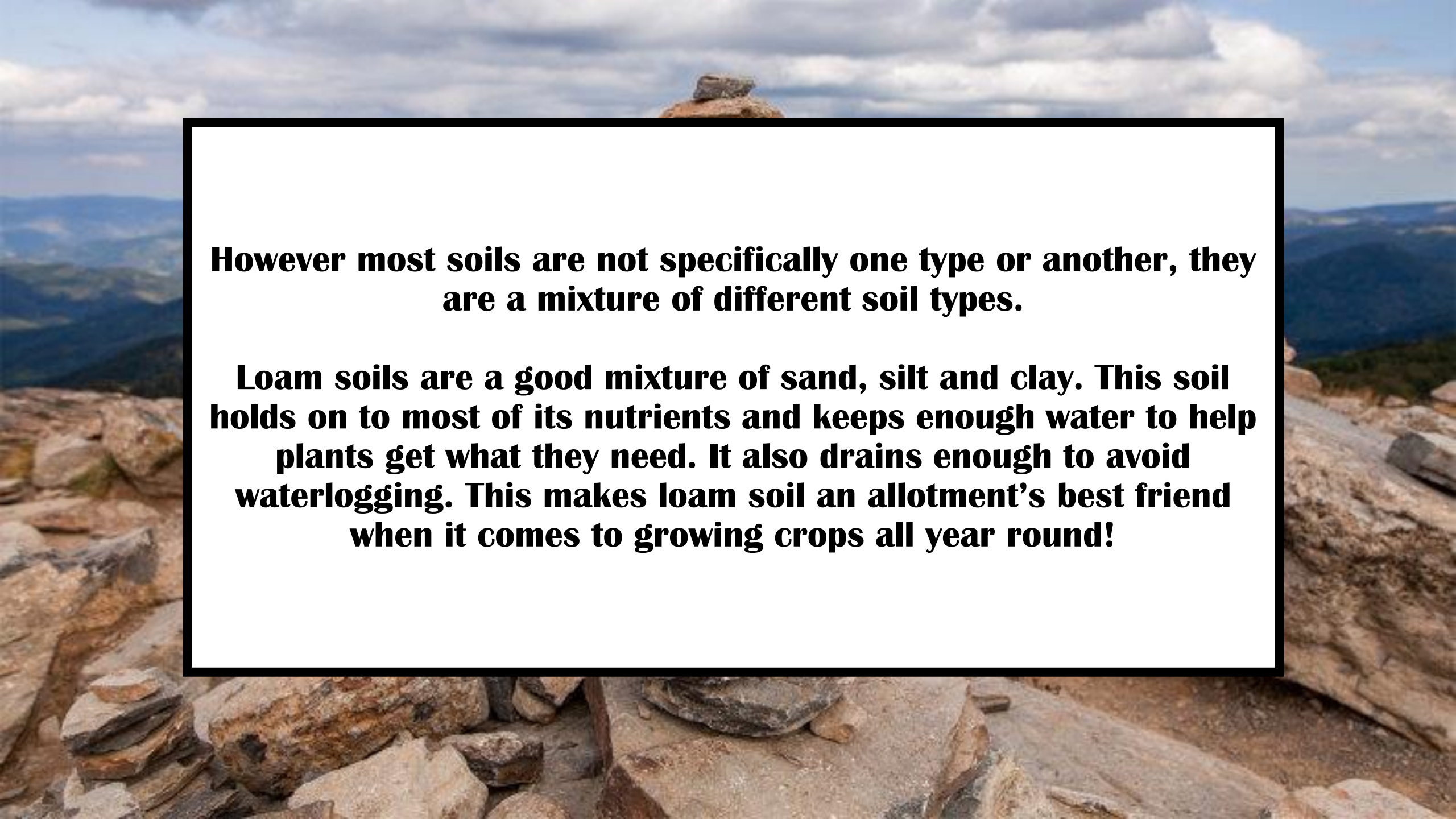


Different soils have different properties depending on their composition. Soils can be different because it depends on the type of rock they were made from and the plants, animals or other organisms that live in or near them.

> Sandy soil is pale coloured and has large particles. These create lots of small air gaps. Water drains through them easily so it usually feels dry.

> Clay soil is usually sticky and has small particles. They contain very few air gaps and water does not drain through it easily.

> With medium sized particles, silt soils hold on to enough water to allow for good plant growth while draining enough to avoid waterlogging.



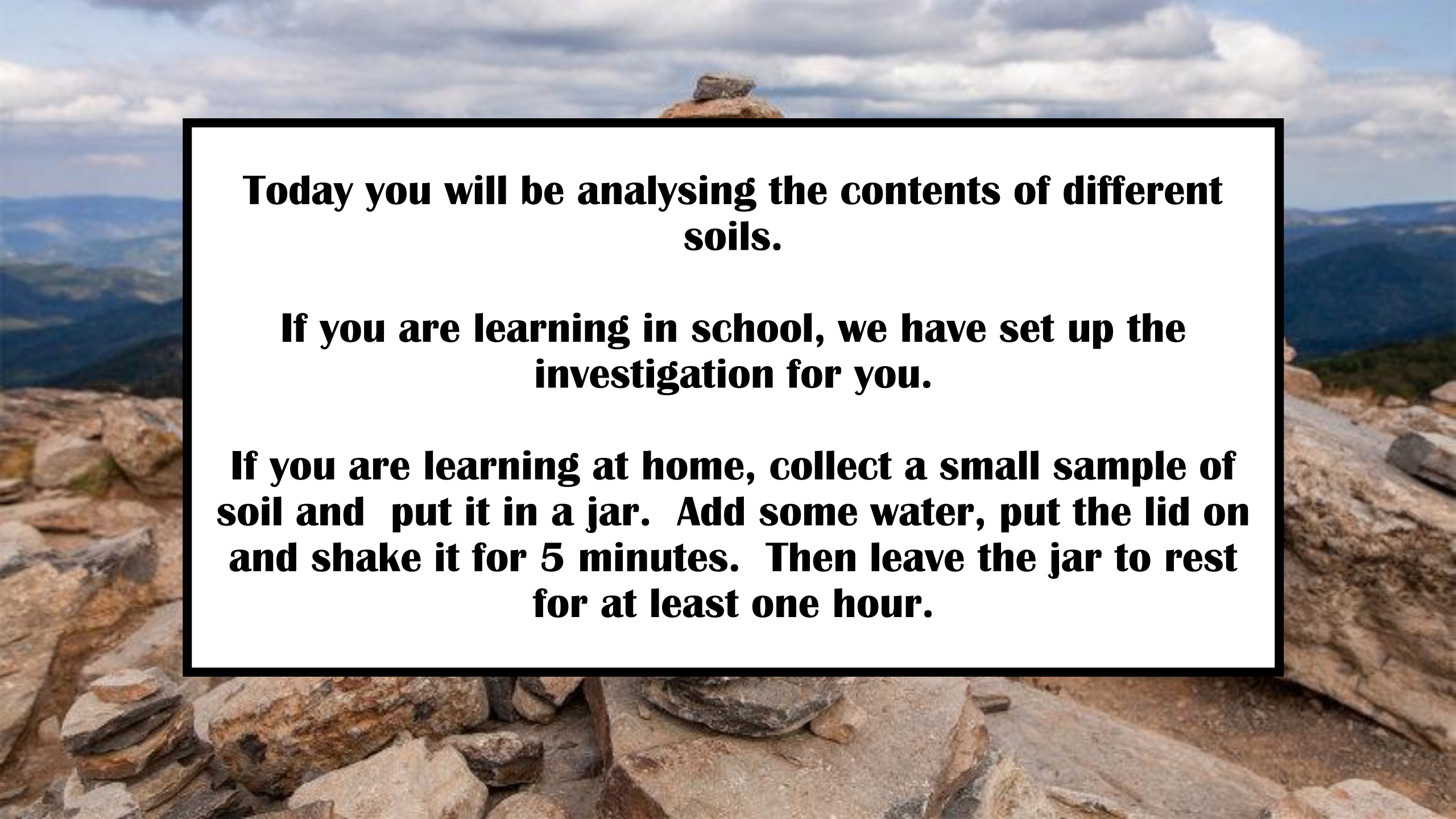
However most soils are not specifically one type or another, they are a mixture of different soil types.

Loam soils are a good mixture of sand, silt and clay. This soil holds on to most of its nutrients and keeps enough water to help plants get what they need. It also drains enough to avoid waterlogging. This makes loam soil an allotment's best friend when it comes to growing crops all year round!

Click the image for a video link.

Click the
image for a
video link.





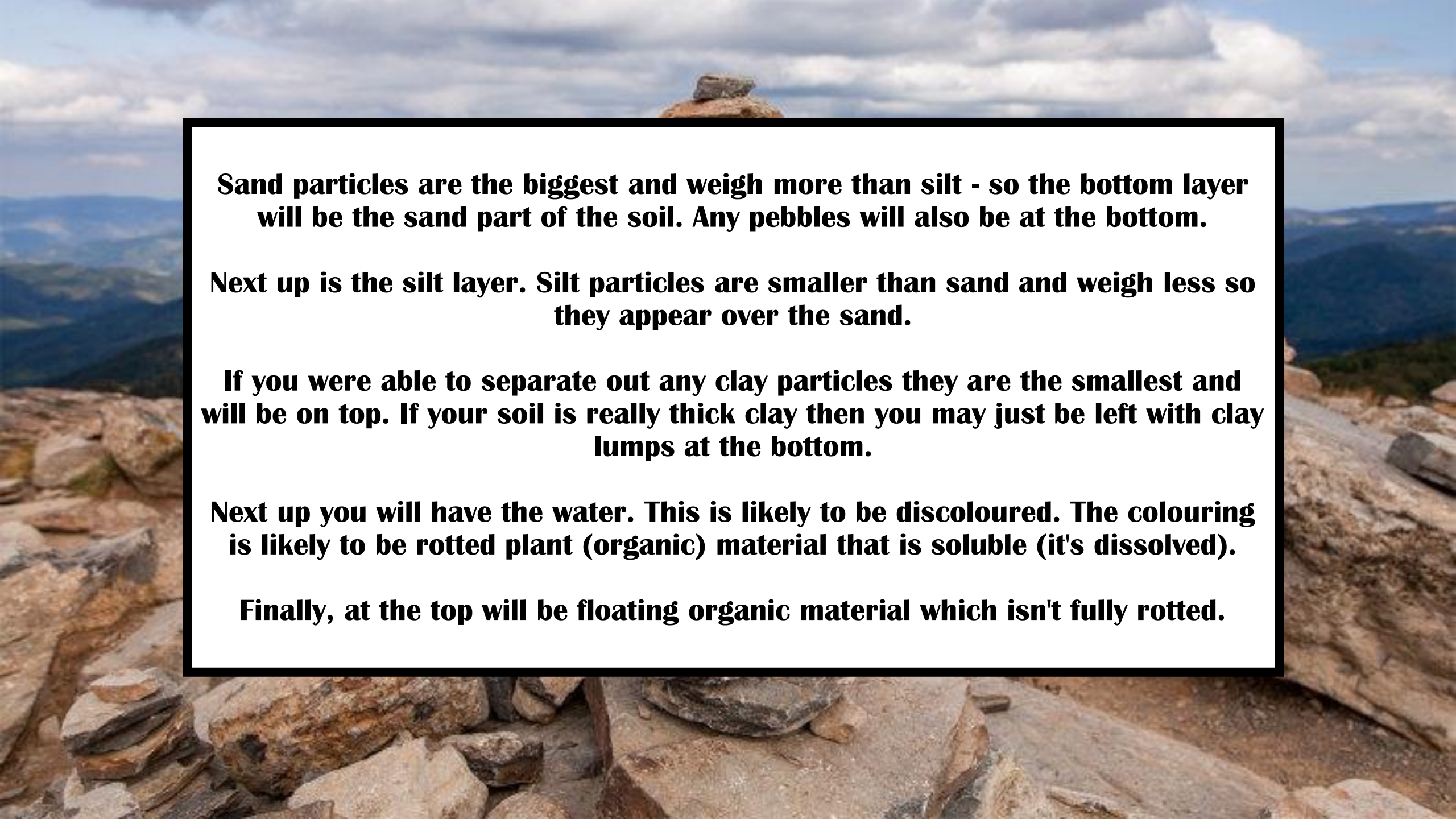
Today you will be analysing the contents of different soils.

If you are learning in school, we have set up the investigation for you.

If you are learning at home, collect a small sample of soil and put it in a jar. Add some water, put the lid on and shake it for 5 minutes. Then leave the jar to rest for at least one hour.



**Look closely at the layers the soil has split into.
What do you notice?**

The background image shows a rugged, rocky landscape under a cloudy sky. In the center background, a small stack of three stones sits on a larger rock. The foreground is filled with various sized rocks and boulders. A white text box with a black border is centered in the middle of the image.

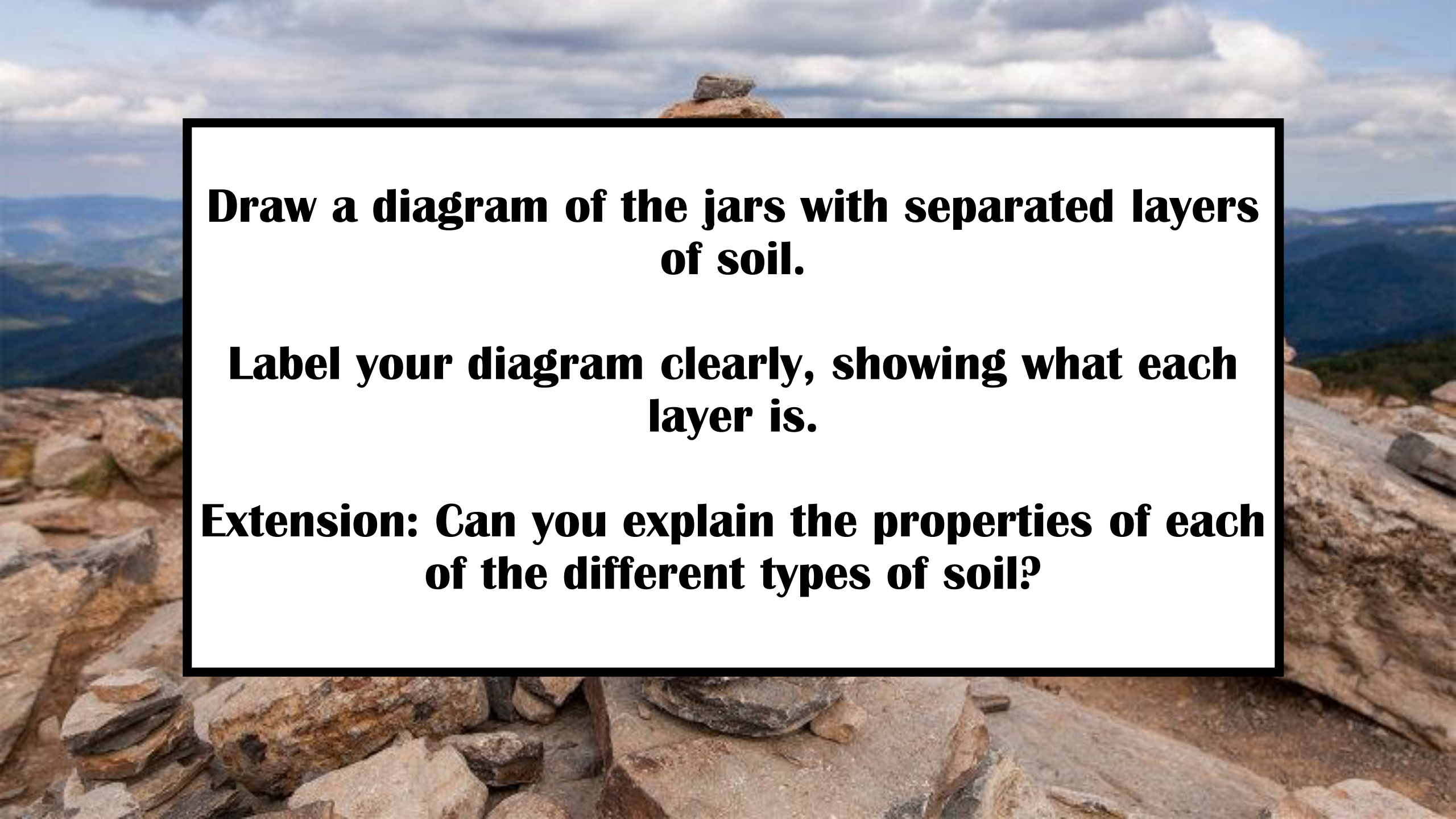
Sand particles are the biggest and weigh more than silt - so the bottom layer will be the sand part of the soil. Any pebbles will also be at the bottom.

Next up is the silt layer. Silt particles are smaller than sand and weigh less so they appear over the sand.

If you were able to separate out any clay particles they are the smallest and will be on top. If your soil is really thick clay then you may just be left with clay lumps at the bottom.

Next up you will have the water. This is likely to be discoloured. The colouring is likely to be rotted plant (organic) material that is soluble (it's dissolved).

Finally, at the top will be floating organic material which isn't fully rotted.



Draw a diagram of the jars with separated layers of soil.

Label your diagram clearly, showing what each layer is.

Extension: Can you explain the properties of each of the different types of soil?