

# All About Soil

We all need soil in order to live. Healthy soil has food, air, water and micro-organisms to help plants grow. In turn, animals feed on the crops and humans feed on both plants and animals. Healthy soil, healthy food, healthy people.

## For this exercise you will need:

- Gloves • Goggles • Tables • Table cloths • Aprons
- Bowls • Water, in a squeeze bottle or jug.

Farmers need to know what soil type they have on their farms so they can decide what will grow best. Use the method below to find out.

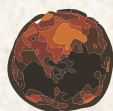
With the help of your teacher collect some soil from your school garden or allotment. If you don't have a school garden you can still take part - ask your teacher to bring some soil in to class or visit a local allotment.

## Method:

Wet the soil and squeeze in your hands until no more water comes out. Knead it for a few moments in your hand. Try to make the following shapes in order. If you can't make the next shape then the final shape you get the type of soil (for example, if a worm shape can be made but it breaks if bent, it is loam).



**1. Sand**  
(cone shape)  
This soil contains sand and is rough to touch. Water drains through it quickly, washing away nutrients so this soil is low in nutrients.



**2. Silt** (ball)  
Retains moisture but can be slow to drain, this is a good soil if you look after it. Smooth to touch and can feel soapy when wet.



**3. Loam** (worm)  
Best of all types of soil as it is a mix of clay, sand and silt. It is mouldable but does not feel sticky.



**4. Chalk**  
(broken bent worm)  
This soil is gritty and dry to touch it is stony and free draining but can suffer from poor plant growth.



**5. Clay**  
(smooth bent worm)  
Clay has the smallest size grains, it feels smooth and holds nutrients well. This is a good soil to grow plants in. Clay soil is smooth when dry and sticky when wet.



# There is more to soil than meets the eye!

The mud or dirt you might think of as soil is quite literally only the surface of many different layers. Think of it like a cake.

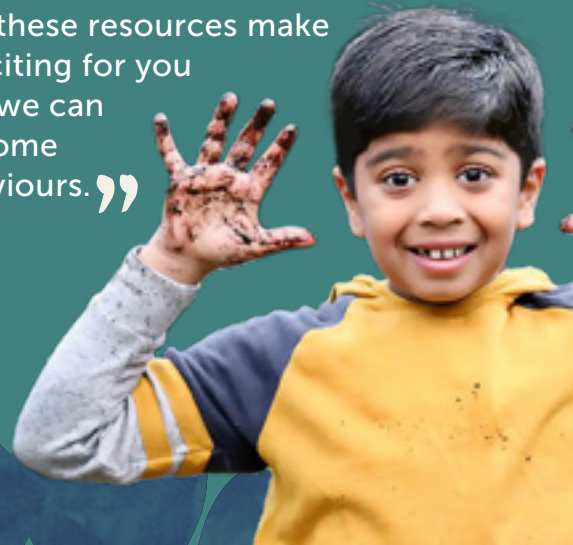
Having completed some of the other exercises and learned about soil in your class can you name the layers? If you need to remind yourself what the layers are called then check out the Soil Fact Sheet.

Why not colour them in too – they are not all just brown!

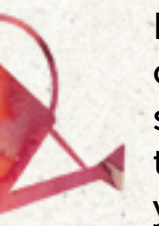
## Our Soil Ambassador

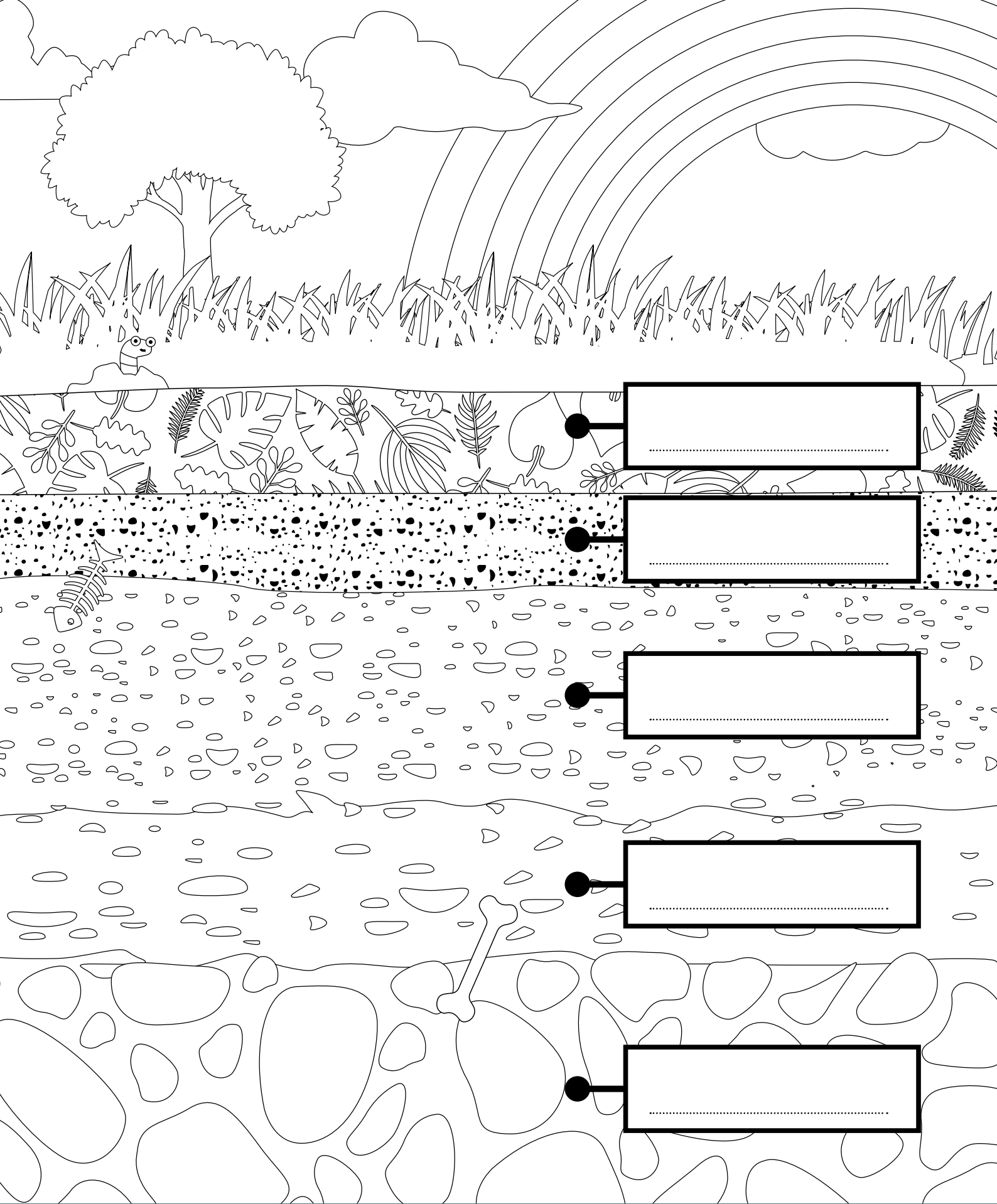
Seven-year-old climate change artist, poet, and wildlife documentary maker, Aneeshwar Kunchala, is our Soil Ambassador and proves that you can be any age to save the planet.

“It’s great to work with the Soil Association to help everyone learn more about our amazing soil and make a difference to this world. I hope these resources make soil exciting for you too so we can all become Soil Saviours.”



ANSWERS No cheating now!  
Box 1: Organic Matter or humus Box 2: Topsoil  
Box 3: Subsoil Box 4: Rock fragments  
Box 5: Bedrock





**Why not use our resources for  
World Soil Day on 5th December?**

[foodforlife.org.uk](http://foodforlife.org.uk) | [@SAfoodforlife](https://twitter.com/SAfoodforlife)

