

The image features a close-up, top-down view of dark, rich soil that has dried and cracked into a complex, irregular pattern of polygonal shapes. The cracks are deep and dark, creating a textured, almost mosaic-like appearance. The soil color ranges from a deep charcoal to a slightly lighter, ashy brown. Scattered throughout the soil are small, dried, brown leaves and some tiny green grass blades. In the center of the image, the word "Soil" is written in a large, elegant, black cursive font. The text is set against a semi-transparent, light-colored rectangular background that has rounded corners, making the word stand out clearly from the textured background.

Soil

What is soil?

Soil forms on earth's surface where plants grow. Soil consists of rocks, sand, clay, dead plants, animal remains, and fungi.



Soil contains small creatures such as earthworms that turn plant and animal materials into nutrients. Earthworms also dig through the soil which loosens it so plants grow better.



How is soil formed?

It can take up to a 1000 years for an inch of soil to form. Soil is formed from the weathering of rocks. Rock is broken up by ice, frost, wind, and water.



Why is soil Important?

Soil plays a an important role to life on earth.

The soil helps to clean our water acting as a filter.



Plant also need soil to grow by getting nutrients.



Soil releases gases such as carbon dioxide into the air.



4 Types of Soil

There are four types of soil – clay, silt, sand, and loam. The most important properties of soil is texture because texture is a measure of whether the soil is more like sand, silt, clay, or loam.



Sand



Silt



Clay



Loam

Soil Type: Sandy

- The largest particle found in soil
- When you rub it, it feels rough and gritty.
- Does not contain many nutrients
- Good for providing drainage



Soil Type: Silty

- Smooth to the touch
- When you roll it between your fingers, dirt is left on your skin.
- Retains water longer
- Fairly fertile
- Cold and drains poorly



Soil Type: Clay

- Smallest particles found in soil
- Good water storage
- Sticky when wet, smooth when dry
- Rich in plant food for better growth
- In the summer, it could turn hard and compact



Soil Type: loam

- Contains a good mix of the three soil material – silt, sand, and clay
- The best soil for growing plants
- Dark color, soft, dry, and crumbly
- Has a tight hold on water but drains well

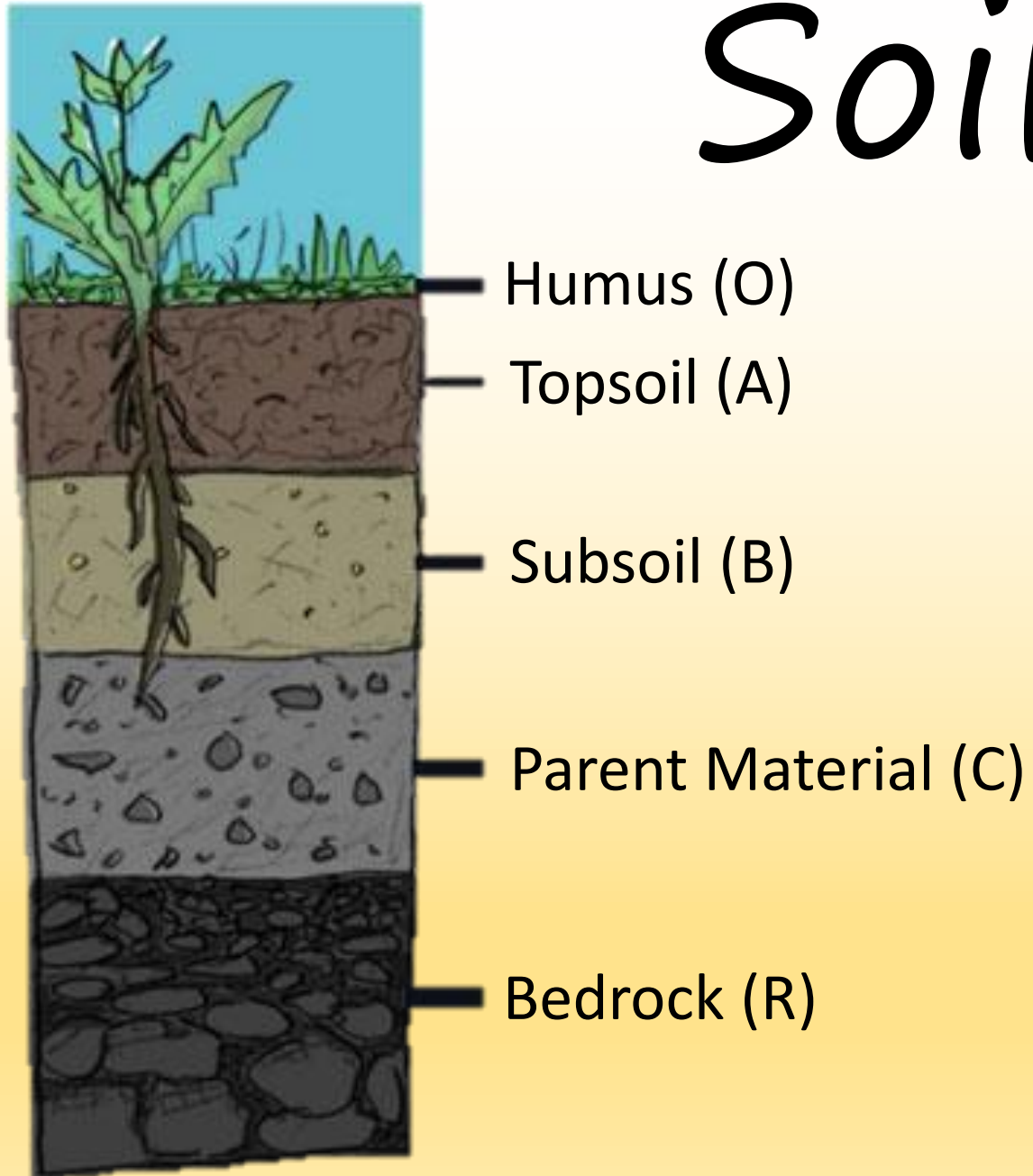


Who studies soil?

A scientist who studies soil is called a Pedologist. They look at different types of soils and find ways to make it healthy.

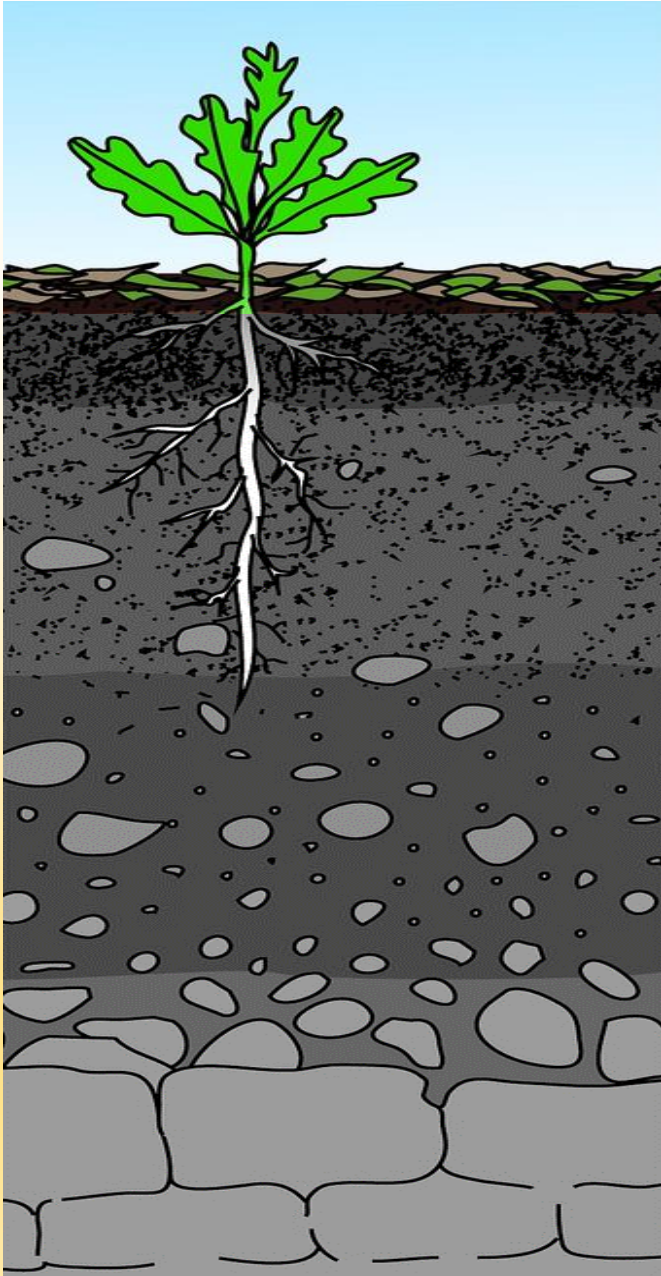


Soil Layers



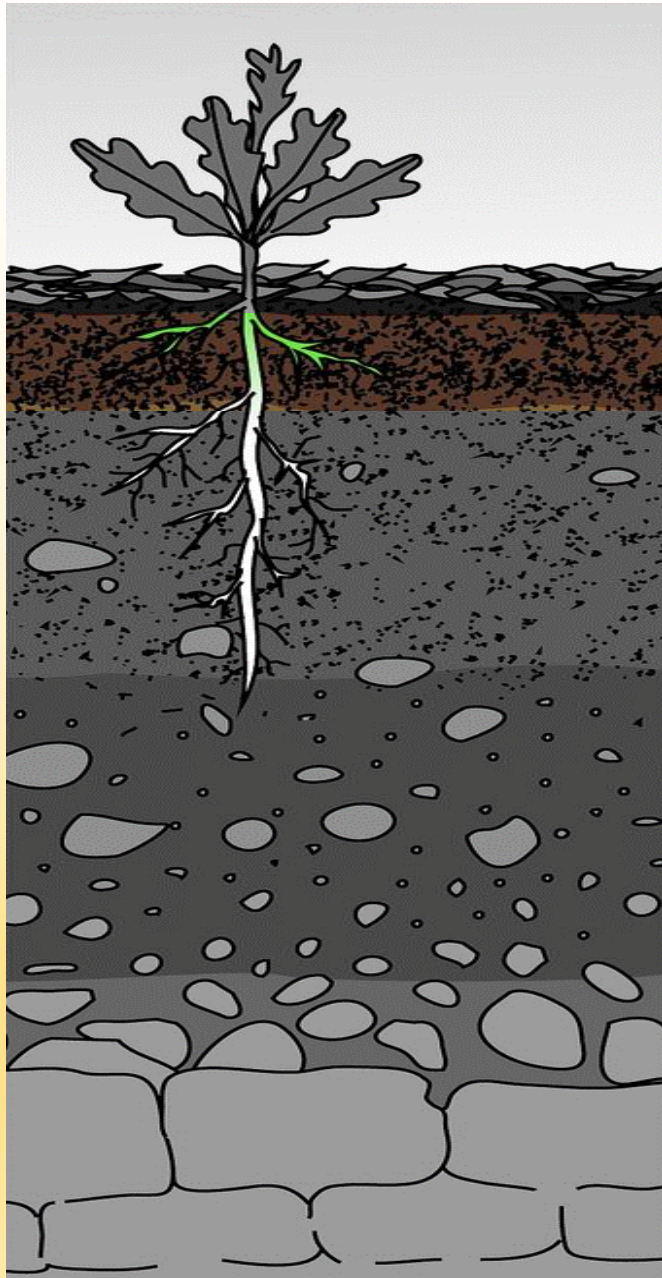
Soil is made up of many layers often called horizons. Each layer has its own characteristics that play a very important role in what the soil is used for and why it is important. Put the horizons together and they form a soil profile.

Humus (O Horizon)



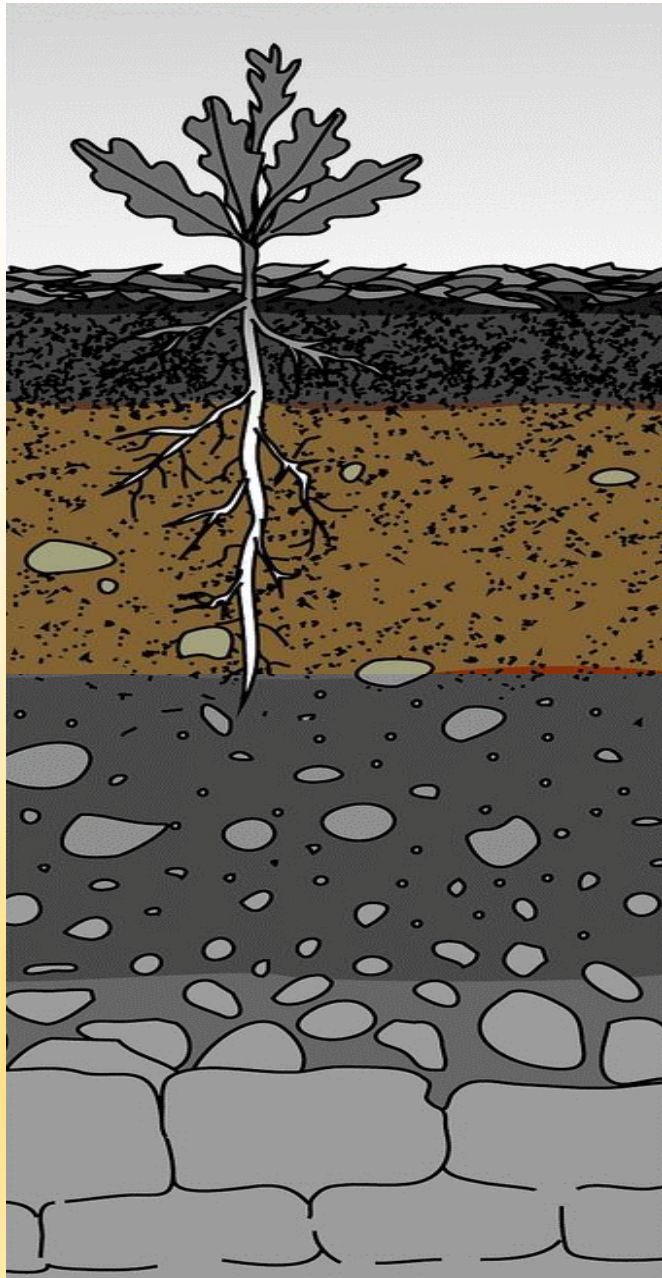
Humus is the top layer of soil that is made up of living and decomposed materials such as leaves, plants, and bugs. This is also known as the organic layer.

Topsoil (A Horizon)



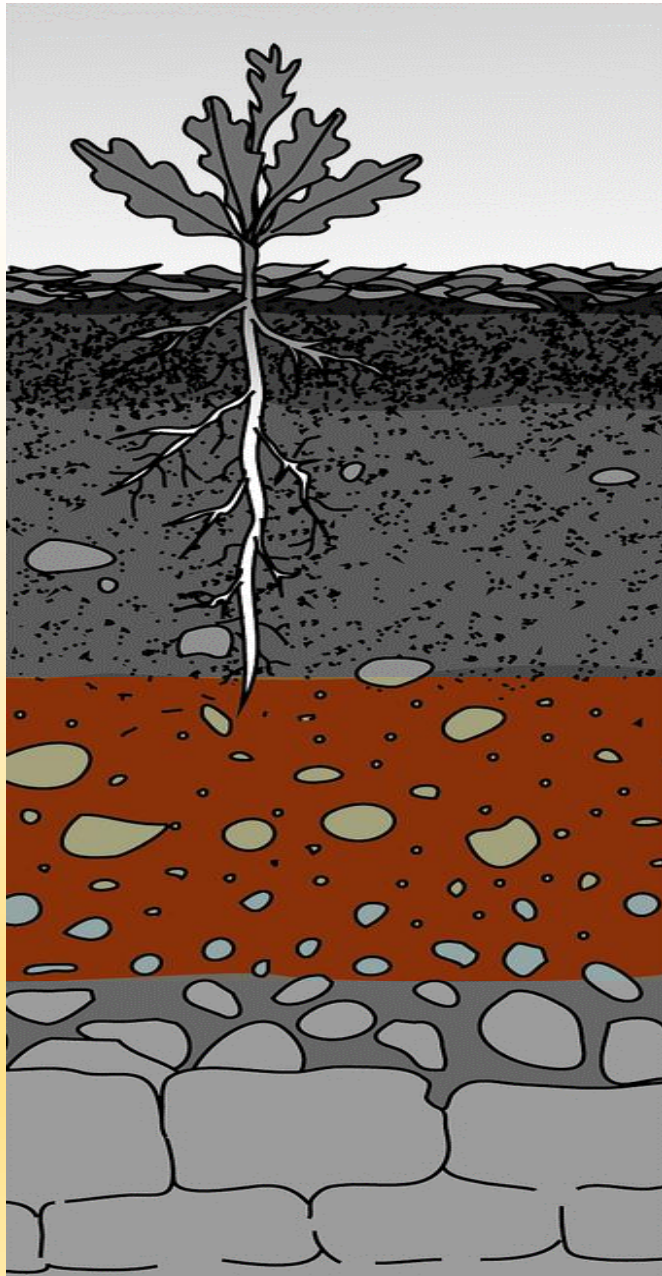
This layer is made up of minerals and decomposed organic matter. It is fairly thin (5-10 in. thick). This is the primary layer where plants and organisms live.

Subsoil (B Horizon)



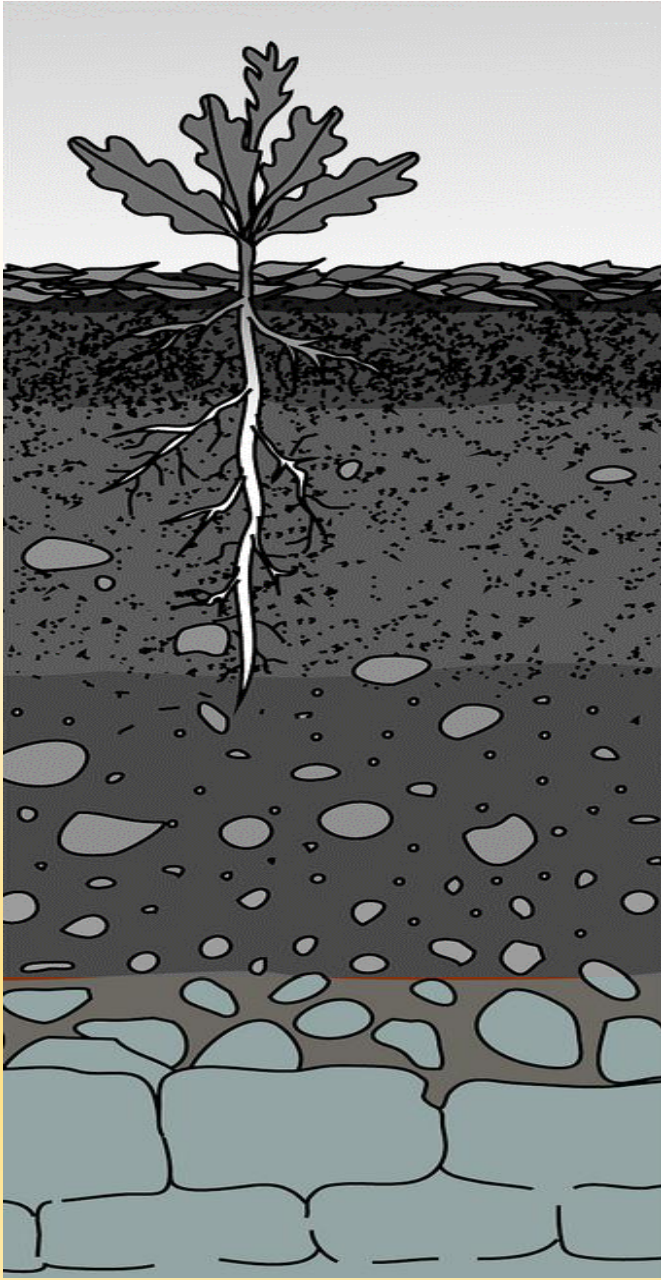
This layer is made of clay, iron, and organic matter.

Parent Material (C Horizon)



This layer is made up mostly of large rocks. Plant roots are not found in this layer. It is called parent material because the upper layers developed from this layer.

Bedrock (R Horizon)



This layer consists of mass of rock such as granite, basalt, quartzite, limestone, or sandstone. This is not soil. The bottom layer is several feet below the surface.

Fun Fact

A small patch of soil (just 1 square yard or 9 feet) can hold billions of living things such as insects, spiders, worms, fungi, and bacteria.

