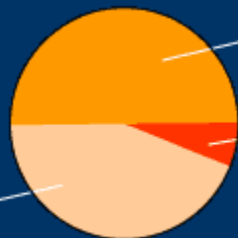


What's In Soil?

Soil is made of rock particles, organic matter, and spaces—or pores. The pores are filled with water and air. The soil is home to billions of living things.

Rock particles of different sizes make up a little less than 50% of the soil.

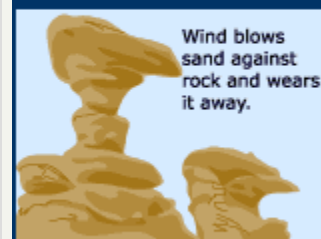


Spaces—or **pores**—between solid rock particles and organic matter make up 50% of the soil.

Usually less than 6% is **organic matter**, such as dead leaves, roots, twigs, animal wastes, and remains of living things.

ROCK PARTICLES

Rock particles come from rock that has been broken down by weathering.



Wind blows sand against rock and wears it away.



Moving water wears down rocks with the help of particles of sand and gravel.

Many plant nutrients, such as potassium and phosphorus, come from rock particles. Nutrients within rocks are not readily available to plants. But as rocks are weathered, mineral nutrients are slowly released and become available to plants.

ORGANIC MATTER

Organic matter is broken down—or decomposed—by bacteria, fungi, and other tiny organisms that live in soil. It provides nutrients for plants. Organic matter improves the soil in other ways, too.

Organic matter acts like a sponge in this sandy soil. It holds water and nutrients for my plants. Now I don't have to water so often.



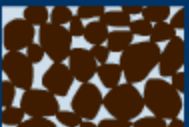
Adding organic matter makes this clay soil lighter, and easier to work with when you are planting a garden.



Moles are animals like mice that make tunnels in the soil.

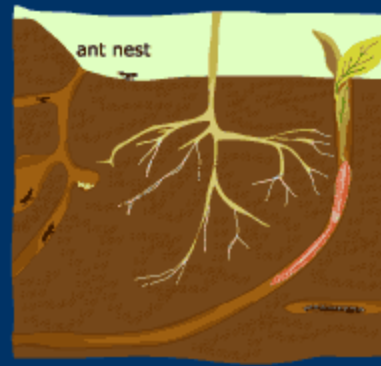


PORE SPACES



Spaces exist in soil because the rock particles do not fit together perfectly. Soil pores are filled with air and water. Plant roots and soil life use the air in soil when they burn food to make energy. Plants take up water that is stored in the pore spaces. The nutrients they need to grow are dissolved in the soil water.

Animals create pore spaces as they burrow through the soil.



An earthworm pulls leaves down into its tunnel.

A millipede makes tunnels in the soil.

Source URL: <https://www.usbg.gov/whats-soil>