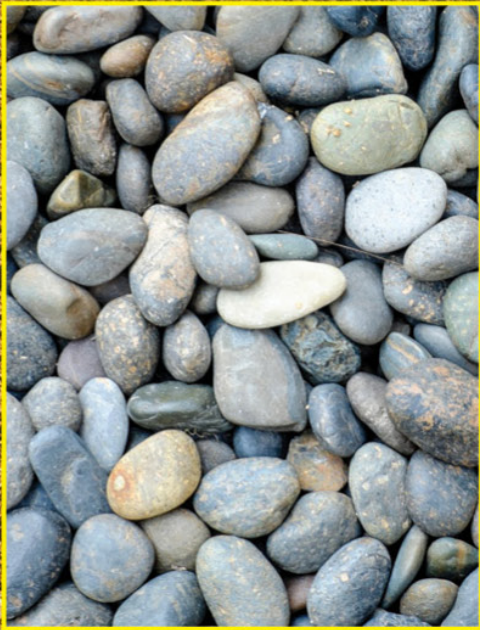




What's Soil Made Of?



by Ellen Lawrence

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Soil All Around

What can be brown, yellow, red, crumbly, wet, or sticky? Soil!

Soil is where plants grow and where many animals make their homes.

In fact, people, plants, and animals all need soil to live.

So where does soil come from, and what is it made of? Let's find out!



soil in a yard



peanut plants growing in soil

It's not always possible to see soil in a city, but it's there. Houses, apartments, schools, roads, and sidewalks are all built on top of soil.

a construction site in a city

soil

A Close-Up Look at Soil

A handful of soil can feel soft and crumbly.

So it might be hard to believe that the main **ingredient** in soil is rock!

Sometimes, pieces of rock in soil are big enough to see.

Most of the pieces of rock, however, are tiny grains.

Where does the rock come from?





tiny grains
of rock

an earthworm in soil

Many of the
tiny pieces of
rock in soil are the
size of grains of salt.
Some pieces of rock are
so tiny they can only
be seen through a
microscope.

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Read More

Lawrence, Ellen. *Dirt*
(*FUN-damental Experiments*).
New York: Bearport (2013).

Owen, Ruth. *Science and Craft*
Projects with Rocks and Soil
(*Get Crafty Outdoors*). New
York: Rosen (2013).

Schuh, Mari. *Soil Basics*
(*Pebble Plus*). North Mankato,
MN: Capstone Press (2012).

Learn More Online

To learn more about what soil is made of, visit
www.bearportpublishing.com/Down&Dirty

About the Author

Ellen Lawrence lives in the United Kingdom. Her favorite books to write are those about animals and nature. In fact, the first book Ellen bought for herself, when she was six years old, was the story of a gorilla named Patty Cake that was born in New York's Central Park Zoo.

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What's Soil Made Of?

Did you know that rain and wind can help make soil by breaking down huge rocks? Look inside to find out how. As you read *What's Soil Made Of?*, learn about the different ingredients that form soil—including tiny bits of rock, dead plants, and even animal poop! Along the way, you'll also find out why most living things need soil to survive.

Dirt or Soil:

What's the Difference?

How Do Animals Help Make Soil?

Is All Soil the Same?

What's Soil Made Of?

Why Do Most Plants Need Soil?

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