

# ROCKS & SOIL



# Rock

A solid material made of more minerals.



# Sediment

Material carried onto land by water, wind, or water by water, wind, or



# Lava

Molten rock that has flowed out of a volcano.



# Erosion

When rocks and sediments are and moved to another place by water, wind, or gravity.



# Organic Matter

Matter that has come from a living organism. It is captured



# Horizon

Soil is made up of distinct layers. Each one is called a horizon.



# Decay

To rot, decompose, or break down.



# Igneous Rock

When magma or lava cool and become rock.



# Rocks



Humans have been using rocks for many years.



Rocks are used when building houses.



The inside of your house can even be made with rock. Kitchen counters and plates are a couple of examples.



are used in roads and



Also for some jewelry.



Do you like to play with chalk? That is even made with rock!



that are made of one or more minerals.



Earth's crust is made up of rock.



Geology is a study that studies rocks.



Let's be a geologist for the day. Complete your My Rock activity.



There are many ways to sort rocks.

- 1) TEXTURE
- 2) COLOR
- 3) SIZE
- 4) SHAPE
- 5) MASS

# TEXTURE

- Rocks can have different textures
- Some can be smooth, bumpy, or rough



# Types of Rock



There are three types of rock  
**IGNEOUS**  
**SEDIMENTARY**

## IGNEOUS

- Formed by volcanoes
- When a volcano erupts, magma comes out
- Once magma



chocolate is like an igneous rock. Can you guess why?



If you pour melted chocolate over a marshmallow, it will harden over time and become a rock.



## SEDIMENTARY

- Formed from pieces of sediment that have been pushed together and become a rock.
- Makes up the bottom of the ocean.



A sandwich is like a sedimentary rock. Can you guess why?



A sandwich has many different layers like a sedimentary rock. You put each layer on one at a time.



## METAMORPHIC

- Formed by heat and pressure
- Generally found inside the earth's crust
- Often made from other types of rocks



An omelet is like a metamorphic rock. Can you guess why?



To make an omelet, you mix a few eggs with various ingredients. You then cook them on a stove.



Rocks are always changing in what is called a rock cycle.



## Soil



Soil plays a very important role in our world.



Soil is the layer on the Earth's surface.

Soil is not something that is formed overnight. An inch of soil can take up to 1000 years to form.



Soil is made from rocks that have broken apart into tiny pieces near the Earth's surface. Organic material (plants and animals) mixes with the rock and then soil is made.



Plants need soil to grow. They use it for nutrients and also as a way to anchor themselves in the ground with their roots.



Animals live in the soil. Without it, they wouldn't have a home.



Farmers need soil to grow crops for people to eat.



Soil has many different layers. Each layer is called a horizon.



- These are the different layers of soil:
- 1) ORGANIC
  - 2) TOP SOIL
  - 3) SUBSOIL
  - 4) PARENT MATERIAL
  - 5) BEDROCK

## ORGANIC

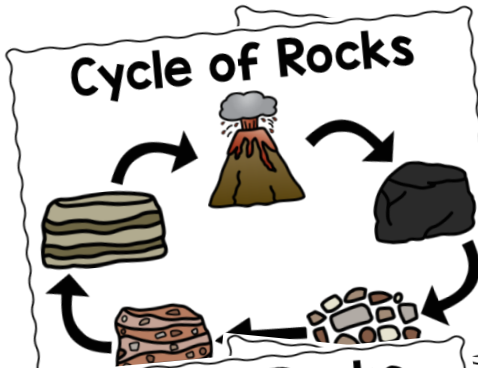
- Top layer
- Made from decomposed organic matter



## TOP SOIL

- It is dark in color
- Full of nutrients
- Good for growing plants





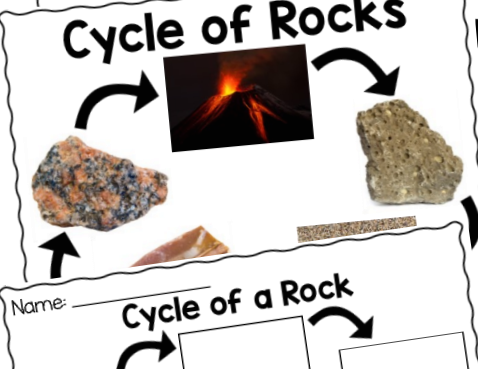
**ma**  
molten rock or  
earth's surface.

**Rock**  
ols, it forms an  
rock.

**ment**  
en a river, slowly  
rock into small  
diment.

**y Rock**  
and, mud and  
layers and  
imentary rock.

**Rock**  
at get high  
< will change  
hic rock.



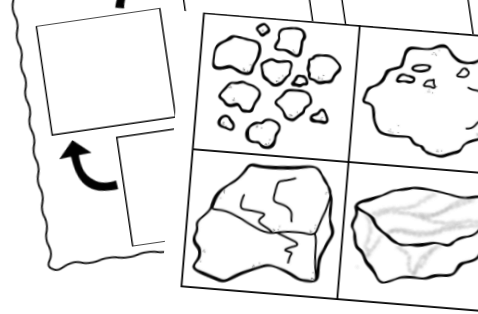
**ma**  
molten rock or  
earth's surface.

**Rock**  
ols, it forms an  
rock.

**ment**  
en a river, slowly  
rock into small  
diment.

**y Rock**  
and, mud and  
layers and  
imentary rock.

**Rock**  
at get high  
< will change  
hic rock.



**Let's Go Rock Collecting!**  
Next week we are learning all about rocks and soil. On Monday we will be learning how rocks are alike and how they are different.  
In order to this, we need your help! Please send your child with **THREE ROCKS** in a Ziploc bag this **MONDAY**. It would be best if each of these rocks were different from each other.  
Thank you so much!

**Let's Go Rock Collecting!**  
Next week we are learning all about rocks and soil. On Monday we will be learning how rocks are alike and how they are different.  
In order to this, we need your help! Please send your child with **THREE ROCKS** in a Ziploc bag this **MONDAY**. It would be best if each of these rocks were different from each other.  
Thank you so much!

Name: \_\_\_\_\_

### This is My Rock!

small
medium
large

**This is my rock wet.**

My rock weighs \_\_\_\_\_ bears.

My rock feels \_\_\_\_\_.

**What color is your rock?**

red	yellow	brown
orange	green	purple

### Types of Rocks

geologist: \_\_\_\_\_

### Igneous Rock

How is it formed?  
\_\_\_\_\_

It looks: \_\_\_\_\_

It is used for: \_\_\_\_\_

### Sedimentary Rock

How is it formed?  
\_\_\_\_\_

It looks: \_\_\_\_\_

It is used for: \_\_\_\_\_

### Metamorphic Rock

How is it formed?  
\_\_\_\_\_

It looks: \_\_\_\_\_

It is used for: \_\_\_\_\_

How is it formed?  
\_\_\_\_\_

It looks: \_\_\_\_\_

It is used for: \_\_\_\_\_

How is it formed?  
\_\_\_\_\_

It looks: \_\_\_\_\_

It is used for: \_\_\_\_\_

Name: \_\_\_\_\_

### What is soil made of?

Soil contains:

1) \_\_\_\_\_ 1) \_\_\_\_\_

2) \_\_\_\_\_ 2) \_\_\_\_\_

3) \_\_\_\_\_ 3) \_\_\_\_\_

4) \_\_\_\_\_ 4) \_\_\_\_\_

pedologist: \_\_\_\_\_

### Types of Soil

pedologist: \_\_\_\_\_

It feels: \_\_\_\_\_

It looks: \_\_\_\_\_

The colors I see: \_\_\_\_\_

It is used for: \_\_\_\_\_

### Silt

It feels: \_\_\_\_\_

It looks: \_\_\_\_\_

The colors I see: \_\_\_\_\_

It is used for: \_\_\_\_\_

### Clay

It feels: \_\_\_\_\_

It looks: \_\_\_\_\_

The colors I see: \_\_\_\_\_

It is used for: \_\_\_\_\_

