

Rocks and the Rock Cycle

Read P.289

208-2, 310-2B

Rocks are grouped into 3 major families:

- 1) Igneous Rock
- 2) Sedimentary Rock:
- 3) Metamorphic Rock

Before we start there are some terms you need to know.

Magma: is melted rock, formed under Earth's crust by high temperature and pressure: magma occasionally escapes to Earth's surface as lava

Intrusive Rock: is a type of igneous rock formed when magma cools and solidifies below Earth's crust

Lava: the term for magma when it breaks through Earth's crust, in a volcano

Extrusive Rock: is a type of igneous rock formed when magma cools and solidifies above Earth's crust

Sediment: Loose material such as bits of rock, minerals, and plant and animal remains.

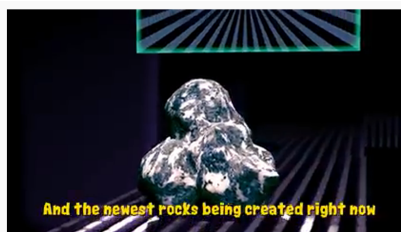
Sedimentary Rock: The most common type of rock on Earth's surface; formed by the compacting of sediment.

Metamorphic Rock: a type rock made when high pressure and heat act on another type of rock and change it into a new form.

Parent Rock: The original rock that was acted on by high pressure and heat to form a metamorphic rock.

<https://www.youtube.com/watch?v=KtbAEYwkC1E>

Song



The 3 Types of Rocks

<https://www.youtube.com/watch?v=6qaG3MqI-4o>

Definition with pictures



3 Types of Rocks and the Rock Cycle Igneous, Sedimentary, Metamorphic
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Igneous Rocks

310-2B



This forms when hot magma and hot lava cool and solidify.

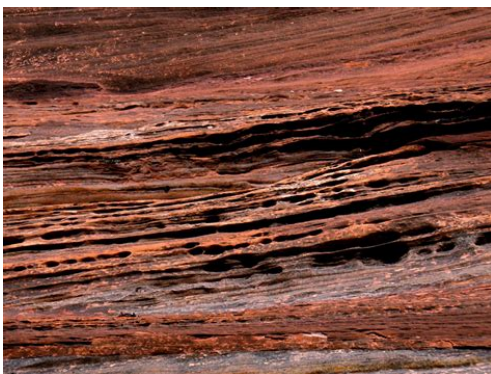
Any rock that is heated at great depths can be melted.

Magma can dissolve the rocks around it and push up to the surface through cracks in the earth's crust.

Geologist classify igneous rocks based on whether they formed above or below the earth's surface.

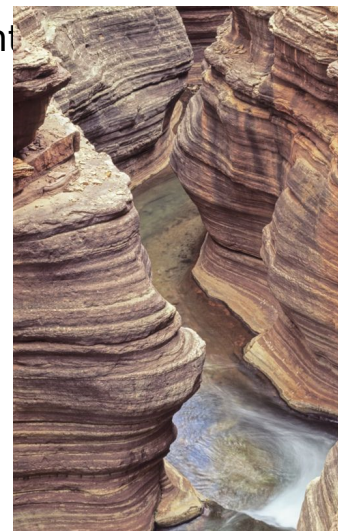
Formation of Sedimentary Rocks

Rock sediment eventually settle over years, most often in lakes and oceans. Larger, heavier fragments settle first and end up at the bottom.

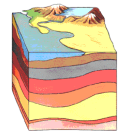


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Eventually as the sediment settle over each other the rock takes on a layered appearance.



How does settled sediment become rock?



Each sediment layer squeezes together by the weight of the others and the water on top of it. This is called Compaction.

In some rocks minerals dissolve as the water soaks into the rock, forming a natural cement that sticks the larger pieces of sediment together..



How sedimentary rock form (2 min)

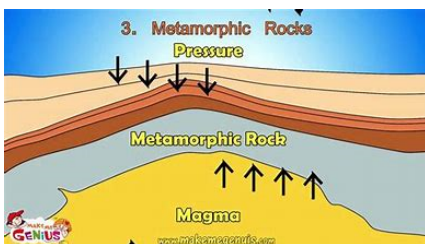
<https://www.youtube.com/watch?v=HIRicf2reX8>



Metamorphic Rock

Once a rock is made it can change it's form.

Metamorphic rocks form below the earth's surface when high pressure and heat cause the original rock to change form.



Metamorphic Rocks



Metamorphic rocks

<https://vimeo.com/297078634> (2 min)

<https://www.youtube.com/watch?v=ANfiWY8VYnM> (1 min 38 sec)

Attachments

Science 7 Rock Assignment 1.docx