

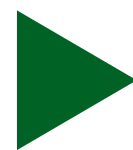
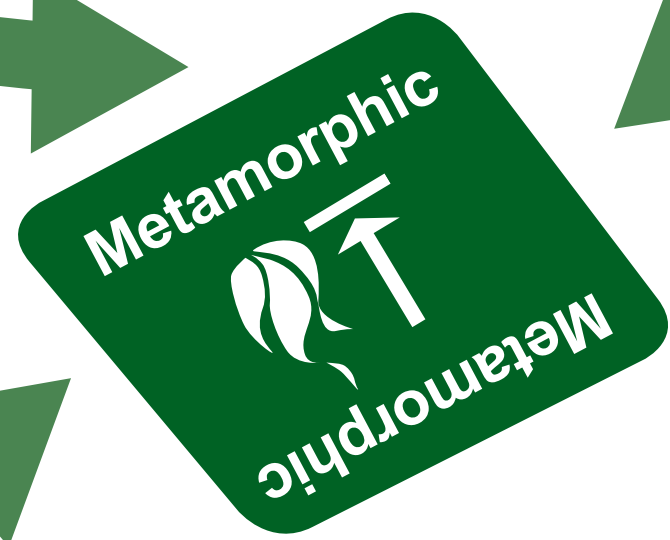


-  **Melting, cooling and hardening**  
Turns you into an Igneous Rock!
-  **Erosion, deposition and cementation**  
Turns you into a Sedimentary Rock!
-  **Transformation by heat and pressure**  
Turns you into a Metamorphic Rock!

Limestone  
A Sedimentary Rock



Scoria  
An Igneous Rock



Gneiss  
A Metamorphic Rock

**Rock Cycle**  
**Roundabout**

Erosion, deposition and cementation

Melting, cooling and hardening

Transformation by heat and pressure

Transformation by heat and pressure

Erosion, deposition and cementation

Melting, cooling and hardening





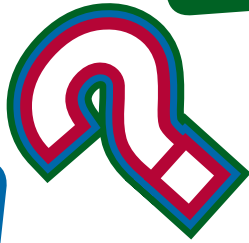
Which rock do you change into?

Which rock do you change into?



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## How do you change?

- 1) You lie deep in the Earth's crust
- 2) You slowly melt from the heat of the Earth's mantle.
- 3) You erupt out of a volcano as liquid rock (lava) and harden in the cool air.

## What rock do you change into?

**Answer:** Change into an **igneous** rock!

## How do you change?

- 1) You lie deep below the surface of the earth, where there is extreme heat and pressure.
- 2) A fault (crack in the Earth's crust) nearby fills with magma, increasing the temperature around you.
- 3) The heat causes your minerals to change.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) You lie deep in the Earth's crust
- 2) You slowly melt from the heat of the Earth's mantle.
- 3) As the Earth's plates shift, you get pushed up, towards the surface and cool and harden in the process.

## What rock do you change into?

**Answer:** Change into an **igneous** rock!

## How do you change?

- 1) A glacier slowly flows over you, crushing and dragging you.
- 2) As you get ground into tiny pieces, you become cemented to other rock particles.
- 3) The glacier passes over, and leaves behind clusters of these cemented particles.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!



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## How do you change?

- 1) You slowly crumble as rain, ice and wind erode you.
- 2) Rain washes you down to the bottom of a river.
- 3) You are glued to other deposits under the pressure of the river's water.
- 4) When the river runs dry, the hot sunlight bakes you, making you hard.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!

## How do you change?

- 1) You get buried under sediment on the ocean floor.
- 2) You get forced underneath (subduction) the North American continent, towards the center of the Earth.
- 3) You slowly melt from the heat of the Earth's mantle.
- 4) You get forced up and harden in the cold water.

## What rock do you change into?

**Answer:** Change into an **igneous** rock!

## How do you change?

- 1) The roots of trees grow into your cracks, breaking you out of your rock bed. You to fall into a nearby stream.
- 2) The stream breaks you down into smaller pieces which get washed downstream.
- 3) The stream dries up and your pieces become cemented to other bits of rock around you.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!

## How do you change?

- 1) You are part of a tectonic plate colliding with another plate.
- 2) Your plate gets forced under the other, causing incredible friction.
- 3) The friction produces heat and pressure, transforming your minerals.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!



Which rock do you change into?



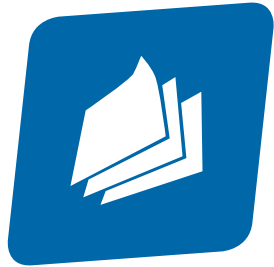
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## How do you change?

- 1) You lie near the bottom of the Earth's crust, 10 miles below the surface!
- 2) With the intense pressure of the rocks above you and the heat from below you are transformed into another type of rock.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) You lie deep below the surface of the earth, where there is extreme heat and pressure.
- 2) A fault (crack in the Earth's crust) nearby fills with magma, increasing the temperature around you.
- 3) The heat causes your minerals to change.

## What rock do you change into?

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- 1) You lie deep in the Earth's crust
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## How do you change?

- 1) You slowly crumble as rain, ice and wind erode you.
- 2) Rain washes you down to the bottom of a river.
- 3) You are glued to other deposits under the pressure of the river's water.
- 4) When the river runs dry, the hot sunlight bakes you, making you hard.

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## How do you change?

- 1) An earthquake jolts you from your resting place and you tumble downhill, breaking into smaller pieces.
- 2) A flood washes these pieces away to the ocean.
- 3) The weight of the ocean's water cements you to other bits of rock on the ocean's floor.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!

## How do you change?

- 1) You are part of a tectonic plate colliding with another plate.
- 2) Your plate gets forced under the other, causing incredible friction.
- 3) The friction produces heat and pressure, transforming of your minerals.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) A glacier slowly flows over you, crushing and dragging you.
- 2) As you get ground into tiny pieces, you become cemented to other rock particles.
- 3) The glacier passes over, and leaves behind clusters of these cemented particles.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!

## How do you change?

- 1) You lie deep in the Earth's crust
- 2) You slowly melt from the heat of the Earth's mantle.
- 3) As the Earth's plates shift, you get pushed up, towards the surface and cool and harden in the process.

## What rock do you change into?

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## How do you change?

- 1) Boom! A volcano close by has just erupted!
- 2) Lava flowing from the volcano swallows you, melting you instantly.
- 3) As part of the stream of molten rock, you eventually cool and harden.

## What rock do you change into?

**Answer:** Change into an **igneous** rock!

## How do you change?

- 1) You lie near the bottom of the Earth's crust, 10 miles below the surface!
- 2) With the intense pressure of the rocks above you and the heat from below you are transformed into another type of rock.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) You are a stone deep under the ocean's floor.
- 2) A new fault in the oceanic plate allows magma to erupt to the surface near you.
- 3) The intense pressure and heat from the eruption causes you to change as your minerals re-crystallize.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) You get buried under sediment on the ocean floor.
- 2) You get forced underneath (subduction) the North American continent, towards the center of the Earth.
- 3) You slowly melt from the heat of the Earth's mantle.
- 4) You get forced up and harden in the cold water.

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## How do you change?

- 1) You lie on the ocean floor and are buried deeper and deeper under sediment.
- 2) As you sink lower in the Earth's crust, the heat and pressure increases.
- 3) Eventually this heat and pressure is great enough to change your minerals.

## What rock do you change into?

**Answer:** Change into a **metamorphic** rock!

## How do you change?

- 1) An earthquake jolts you from your resting place and you tumble downhill, breaking up into smaller pieces.
- 2) A series of storms causes floods which wash you away to the ocean. Along the way, you crumble into still smaller bits of rock.
- 3) With the tremendous weight of the ocean water above, you get smashed and cemented to other sediments on the ocean's floor.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!

## How do you change?

- 1) You are lying in the middle of a field.
- 2) Suddenly, a flaming meteorite from space smashes into you!
- 3) You are melted from the impact with the hot space rock and flung into the air where you cool and harden.

## What rock do you change into?

**Answer:** Change into an **igneous** rock!

## How do you change?

- 1) The roots of trees grow into your cracks, breaking you out of your rock bed. You to fall into a nearby stream.
- 2) The stream breaks you down into smaller pieces which get washed downstream.
- 3) The stream dries up and your pieces become cemented to other bits of rock around you.

## What rock do you change into?

**Answer:** Change into a **sedimentary** rock!