

The Rock Cycle

Download **Puffin Web Browser** (it is free) which allows you to access websites that need Flash player.

Go to the following website (using the Puffin app) and use the information to answer the following questions. You may like to add drawings, diagrams and tables to your answer.

<http://www.learner.org/interactives/rockcycle/index.html>

1. What are the three main types of rock?
 - a. How are they formed?
 - b. Give two examples of each kind.
2. What two factors can cause rocks to change types?
 - a. For both factors, describe how the change comes about.
3. Explore the Rock Cycle diagram by clicking on different things.
4. Copy the diagram with any extra information you have learnt in your exploration.
5. Click the link 'Complete the cycle' at the bottom of the page and record your score. If you get a score below 8/10, have another go.
6. Test your skills - have a go at the test and click see your results once you are finished. If you haven't got 80% or more read over your notes and try again. Take a photo of your results for your portfolio.



1. The three main types of rock are: igneous, metamorphic and sedimentary.
 - a. The formation of these types of rocks is closely linked, and they are continuously recycled throughout the environment.

Metamorphic:-	Igneous:-	Sedimentary:-
Metamorphic rocks are formed under the surface of the earth. They form due to the intense heat and pressure (or squeezing). This change is known as metamorphism. These types of rocks usually have ribbon-like layers and may have shiny crystals.	Igneous rocks form when magma cools and hardens. Magma is molten rock found deep within the earth. Sometimes the magma cools inside the earth and sometimes it erupts.	These types of rocks are formed from particles of sediments. These include sand, shells, pebbles, and other fragments. Over a period of time, the sediment accumulates into layers and hardens into rocks. Generally, sedimentary rocks are fairly soft and may crumble easily. These are usually the only type of rock that contain fossils.

- b. Two types of each rock are listed below.

Two types of sedimentary rocks are: limestone and conglomerate.

Two types of igneous rocks are: basalt and obsidian.

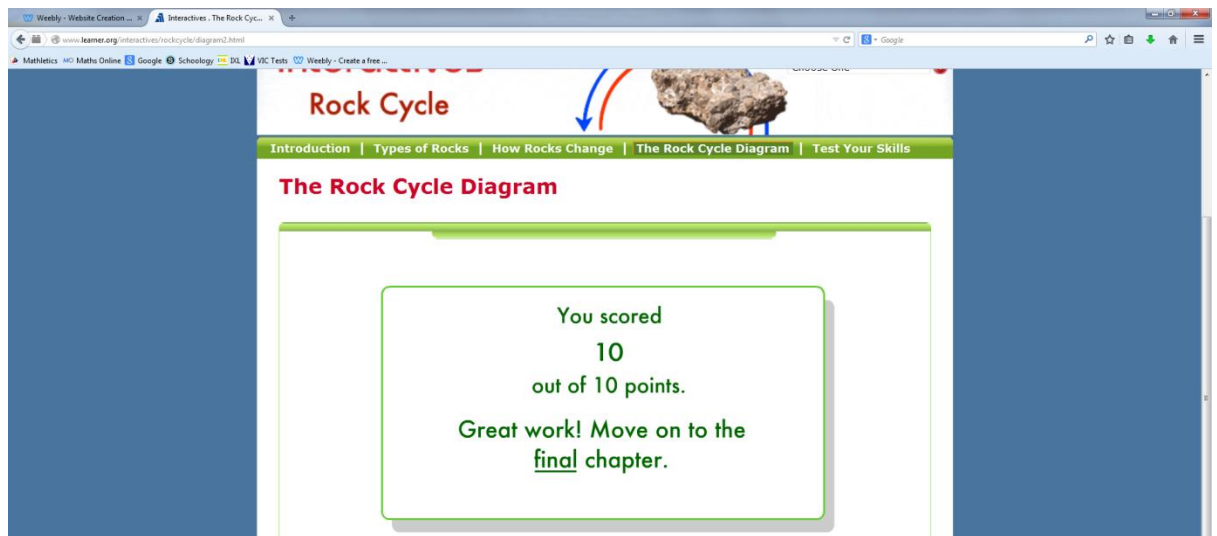
Two types of metamorphic rocks are: marble and gneiss

2. The two factors that can cause rocks to change type are **heat** and **pressure**.
 - a. **Heat:** due to the movement of the earth's crust, rocks can be pulled under the surface. As the rocks descend, the temperature increases; simply, the farther down the hotter it is. At about 100 – 200 km under the surface, the temperatures are hot enough to melt the rocks. However, before this happens a rock can go through physical changes.

Pressure: as rocks move down, the pressure around them increases. The tonnes of rock above push down on the rocks. Pressure usually works alongside heat to alter a rock; and this, in turn, forms a metamorphic rock.

Nevertheless, a rock will still be changed as its surroundings do. Once a rock is melted, it forms a hot substance known as **magma**. This is what comes out of a volcano when it erupts. As it cools, it forms a rock known as an **igneous** rock. The forces of earth (wind, rain etc.) will also alter the igneous rock and transform it into a **sedimentary** rock where the process starts again.

3. My score for the *rock cycle diagram* can be found below.



My result for the *Test Your Skills*:

