101 SIMPLE SCIENCE ACTIVITIES

with

ATOMS EDUCATION

Science Ninja

EDIBLE ROCKS

You will need:

- Milk and white chocolate buttons
- Tin foil
- 3 small cupcake cases
- bowl

KEY FACTS:

Sediments are created when rocks are eroded by weather.

Sedimentary rock is created when sediments settle in layers and are pressed together over time.

Metamorphic rock is created when rocks are drawn towards the Earth's core. The rocks melt slightly and are put under pressure so that they transform.

Igneous rock is formed from molten rock when it cools down under the Earth's surface and becomes solid.

Rocks can be drawn down towards the Earth's core through moving **tectonic plates.** Tectonic plates form the Earth's crust.

When rocks are melted completely, they become **magma.** Magma rises to the Earth's surface and cools to form igneous rock.

Rocks continually transform from one type to another - this is known as the **rock cycle**.

ACTIVITY TIME: 2-3 HOURS

METHOD

1. Pretend that the chocolate buttons are mountains on Earth. Mountains are eroded (broken and worn into sand and silt - sediments) by weather. Break your chocolate buttons into smaller pieces as if they are being eroded.

2. Cut a square of foil and place some of the milk and white chocolate sediments in the middle. Fold the foil to create a sealed packet and then press down on the chocolate sediment. Unfold the foil. What has happened to the chocolate? You have created edible sedimentary rock.

3. Place some white chocolate sediments into one cupcake case and some milk sediments into a second cupcake case. Float the cupcake cases on some warm water. As the chocolate begins to melt, turn one cupcake case upside down on top of the other. Press them together and then let them cool. You have made edible metamorphic rock.

4. To make igneous rock, place chocolate sediments into the third cupcake case. Ask an adult to float it on a bowl of hot water. Let the chocolate melt completely then remove it and let it cool. How does this edible rock compare to the other two? What is the texture like?

5. Draw what your edible rocks look like. Can your find out some examples of each type of rock? E.g. shale is a sedimentary rock.

KEY VOCABULARY:
rock erosion Earth sediment sedimentary metamorphic igneous Earth's core melt heat pressure molten tectonic plates magma rock cycle