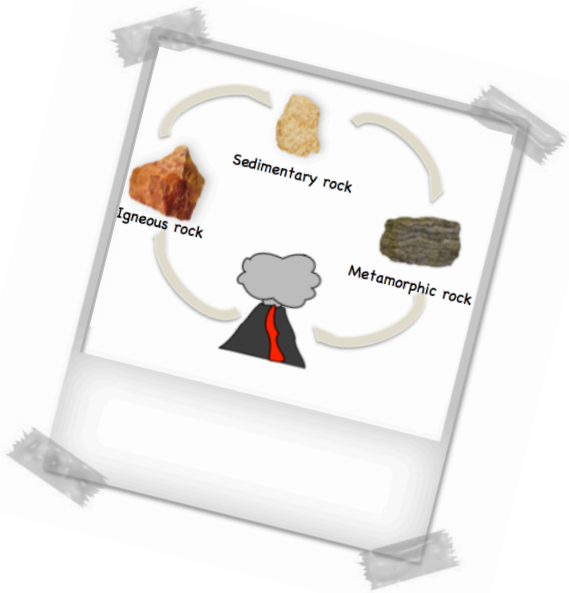
CHOCOLATE ROCK CYCLE

How can we represent the stages of the rock cycle using chocolate?



CURRICULUM LINKS

SCIENCE:

States of Matter (year 4)
Properties & changes of materials (year 5)
Rocks (year 3)

MATHS:

Measurement

I

YOU WILL NEED

- White, milk and dark chocolate cubes
- Graters
- Cling film squares
- Cups
- A source of hot water

STEM VOCABULARY

- **Igneous** - formed from molten rock from underground that is forced to the surface via a volcano (granite, basalt)
- **Magma** - hot fluid beneath the earths crust from which lava and igneous rock is formed by cooling.
- **Metamorphic rock** - sedimentary or igneous rock that has been changed by heat or pressure underground (marble, slate)
- **Metamorphosis** - to change in form, structure or substance. Rock metamorphosis is specifically caused by heat or pressure.
- **Sediment** - loose pieces of minerals and rocks.
- **Sedimentary rock** - created from sediment layers under the sea (limestone, sandstone, chalk).

HOW TO DO IT

1) To make **sedimentary rocks**, grate milk, white and dark chocolate into separate piles. Line a cup with cling film and then layer it with the different flavours (sediments). Press them together with your finger and then remove cling film to view your rock.

2) To make **metamorphic rocks**, take your sedimentary rock and wrap it in cling film. Shape it into a ball using your hand, massage with your fingers to create heat and watch the rock metamorphosis.

3) TEACHER DEMONSTRATION: To make **igneous rocks**, take your sedimentary and metamorphic rocks, wrap in cling film and drop into a source of hot water. Watch as the heat melts the rocks. Take them out and let them cool, turning into igneous rocks.

WHAT ARE WE LEARNING?

When we make sedimentary rock, the pressure from our fingers forces the sediment together into a sold rock. When we make metamorphic rock, the heat and pressure of our hands replicate that of the Earths crust. When we make igneous rock, the heat (volcano) creates lava (the melting rocks) which eventually cools to create igneous rock.

INVESTIGATE

Create rock cycle fact sheets, powerpoints or videos to share what you have learnt.

Find out more about the job of a geologist.