

EDIBLE MODEL ROCKS



OVERVIEW

In this activity, students will learn about the three main types of Earth rocks and make edible analogues to help explain how they form.

They will then use the ideas from this activity to investigate and suggest what some of the samples in the meteorite hunters boxes might be.

CURRICULUM LINKS

Performing simple tests.

Identifying and classifying.

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Compare and group together a variety of everyday materials on the basis of their simple physical properties.

WHAT YOU NEED

Meteorite hunter's boxes

A4 PowerPoint

4.1 Edible rock diagram sheet

4.2 Rock making guide

4.3 Rock bingo cards

Clear plastic cups (one per group shot glasses are best)

Different coloured Fondant icing (sliced up before the lesson)

Coloured sprinkles

Different types of biscuit crumbs

Mini marshmallows, chocolate

Plastic (microwavable) **bowl and spoon**

Clear resealable sandwich bags (one per group)



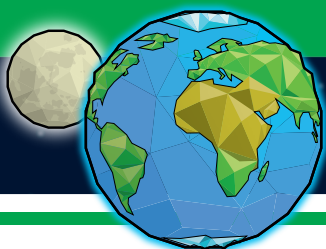
STARTER

Using the powerpoint to help, introduce the three main different types of rock and how they are formed.

Explain that students are going to make edible versions of these to explain how they form. Hand out some of the rock samples to students to look at. As a class discuss what they look like and feel like and create a word bank of key words on the white board.



A4 PowerPoint



EDIBLE SPACE ROCKS



MAIN ACTIVITY

Use sheet 4.2 – Rock making guide to see how to make the edible rocks.

For this activity work as a class to make the igneous rock sample. This requires a large amount of time to cool, so it is best to start with this one.

In small groups of 2 or 3, students can then make the metamorphic and sedimentary rocks.

Pupils can then work in groups to draw a diagram of each of their different types of rocks using sheet 4.1.

4.1 Edible rock diagram sheet

ACTIVITY 4.1 EDIBLE ROCKS

Draw a picture of each of your samples

SEDIMENTARY ROCK	METAMORPHIC ROCK	IGNEOUS ROCK

ACTIVITY 4.2 EDIBLE ROCK MAKING GUIDE

SEDIMENTARY ROCK
These are formed from deposits settling at the bottom of seas, lakes and rivers.

- Water bed: for this use blue fondant icing (have slices ready at the beginning of the class)
- Fossilized bones (possibly dinosaurs): for this you can use coloured sprinkles.
- The bones get covered in layers of mud and sediment. For this alternate with layers of chocolate mousse until you have up to six layers.
- Pupils can then look through the side of the cup and describe what they see – layers built up sedimentary rocks.

METAMORPHIC ROCK
These are rocks that have been changed by heat and pressure.

- For this you will need different coloured fondant icing (3 or more colours).
- Have slices of coloured icing portioned out ready for each group (if you want to eat these later you will need to use a plastic bag and make sure that pupils wash their hands first).
- Squeeze and fold the layers of icing.
- Once the rocks have been made, cut them in half and can you see swirls or layers where the rocks have been pushed together?

IGNEOUS ROCK
These are formed when molten (melted) rock or magma is cooled.

- Children to mix up mini marshmallows, broken up in a heat-proof bowl.
- An adult will then need to heat chocolate and then leave until it has solidified again. This may be towards the end of the session.

WARNING! Check with your teacher about food allergies before you do this activity.

4.2 Rock making guide



PLENARY

Ask pupils to look at the following rock samples from the meteorite hunter's boxes using the hand lenses:

Dark blue

Black

Pink

Red

Yellow

Brown.

(You may wish to remove these beforehand and place in a separate tray to aid counting back in).

Ask them to guess which types of rock they might be on the basis of the activity they have just done.

EXTENSION

Play a game of rock bingo using cards 4.3

ACTIVITY 4.3 ROCK BINGO

WATER		FOSSIL		MUD		HEAT		PRESSURE		COOLED		LAYERS		SOIL	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

4.3 Rock bingo guide