

EARTH ROCKS AND SPACE ROCKS



OVERVIEW

In this activity, pupils will consider some properties of different rocks. They will also learn about classifying, or sorting things into groups to help them identify which rock is which.

They can then take a closer look at the meteorites, tektite and ammonite in their sample boxes.

There are two versions of the worksheets – one with suggested description words, and one without to allow for differentiation.

CURRICULUM LINKS

Describe the simple physical properties of a variety of everyday materials.

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

Working Scientifically

Observing closely, using simple equipment.

- performing simple tests.
- identifying and classifying
- using their observations and ideas to suggest answers to questions.
- gathering and recording data to help in answering questions.

WHAT YOU NEED

Meteorite hunters boxes
(one per group)

3.1 Describing rocks sheet
(Middle/lower ability)

3.1 Describing rocks sheet
(Higher Ability)

3.2 Classification cards
(in colour and cut out for each table)

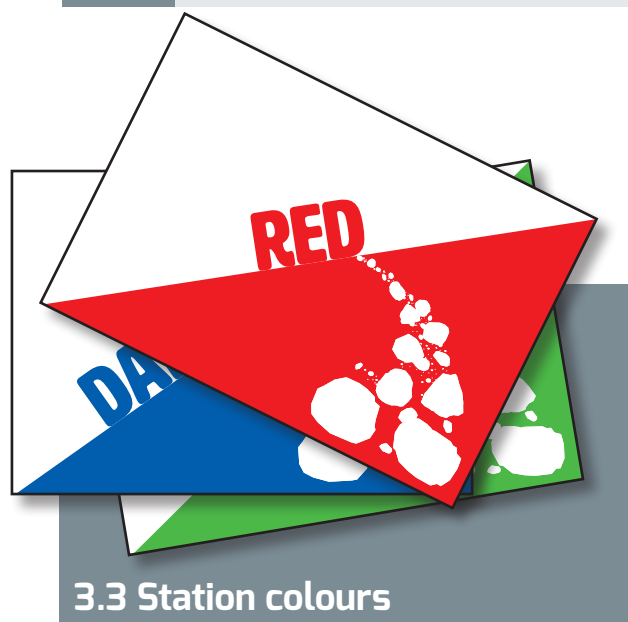
3.3 Station colours
(one set, printed in colour)

A3 Earth rocks space rocks powerpoint presentation

Large Campo de Cielo iron meteorite

All the hand lenses

Before the lesson set up 5 plastic trays with the coloured label and hand lenses and the 5 samples of rock or meteorite that correspond to the colour. You will need the red, green, light blue, orange and purple rocks.



3.3 Station colours



EARTH ROCKS AND SPACE ROCKS

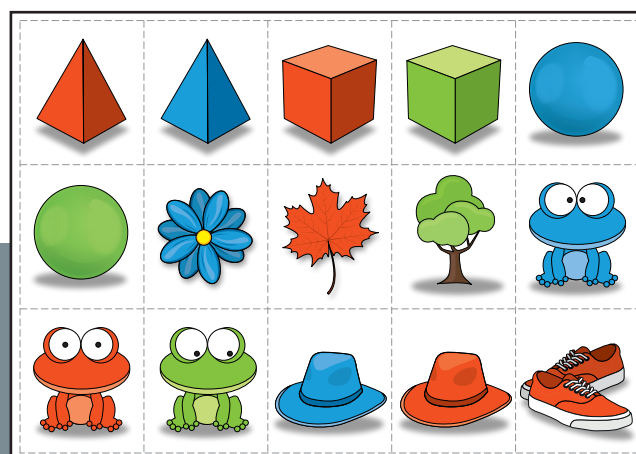


STARTER

Explain to the class that in science it is very important to be able to group items together by similarities that they have. This then allows scientists to ask questions, to allow us to identify what an object or sample is.

Give an example such as sorting the cars in the car park (colour, make, number of doors). Split the students into pairs/threes and hand out the classification cards. Ask them to sort the objects into groups of their choosing by qualities of the object, such as size, shape, light or dark.

Get them to explain the reasoning



3.2 Classification cards

behind the sorting, and compare different groups. There is more than one way to sort objects! You can use the slides on powerpoint A3 to help you.



MAIN ACTIVITY

Divide the class into 5 groups. Hand each group a tray labelled either red, green, light blue, orange or purple.

Ask the students to use the hand lenses to look closely at the samples, and also to feel them. Get them to look for grains, layers, crystals and to comment on whether they are shiny or not. For each coloured dot sample, they should write X number of words (teacher to decide how many words) that they feel best summarises the rock (for lower abilities there are worksheets with the words on to help or the words can be cut out in advance to stick on).

They will then use the describing

3.1 DESCRIBING ROCKS			Earth or Space
Look and feel each of the rocks in the tray and write three words to describe the rock.			
Colour	Name	Description	
Red	Quartzite		
Green	Iron Pyrite		
Orange	Fossil		
Purple	Metal Meteorite		
Light Blue	Stony Meteorite		

Here are some words you could use:

Hard	Heavy	Shiny	Rough	Pale-coloured	Magnetic	Smooth	Multicoloured	Chalky
Dark	Bumpy	Crystals						

3.1 Describing rocks

rocks sheet to follow these questions and decide which rock is which, writing the colour dot that corresponds to each rock. Once they have described the rocks in one tray, they can move around to the next tray.



PLENARY

With the students gathered around explain what each rock was and that the purple (iron meteorite) and the

light blue (stony meteorite) have come from space. Explain that the orange rock was a fossil.

Show the students the large iron meteorite, observing the weight and the fusion crust.