


Last week we began out new Science topic all about Rocks.

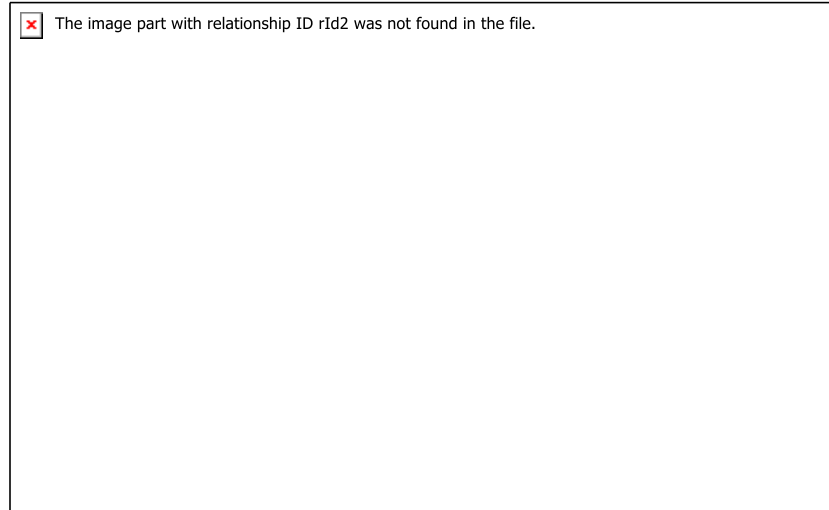
Can you remember how this face appeared in the rocks? What caused it?

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This is Craggy Cliff . The features of a man, resembling a character from Lord of the Rings appeared near Hope Cove in Devon in October 2014.

How do you think this was made?

The sculptor responsible for the face is none other than **Mother Nature** herself, in the form of coastal erosion caused by the exceptionally stormy weather of the past year.



If you are unsure of what coastal erosion is then watch the link below to remind yourself.

<https://www.bbc.co.uk/bitesize/clips/z8tyr82>

Tuesday 2<sup>nd</sup> February 2021

Write today's date  
and objective  
neatly in your  
home learning  
book.

Can I investigate the properties of rocks?

<https://www.bbc.co.uk/bitesize/clips/zvrb4wx>

How are rocks formed?

Can you remember the rock  
cycle?



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# Natural Rocks

Recall your learning from last week on the 3 different types of rocks.



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Igneous



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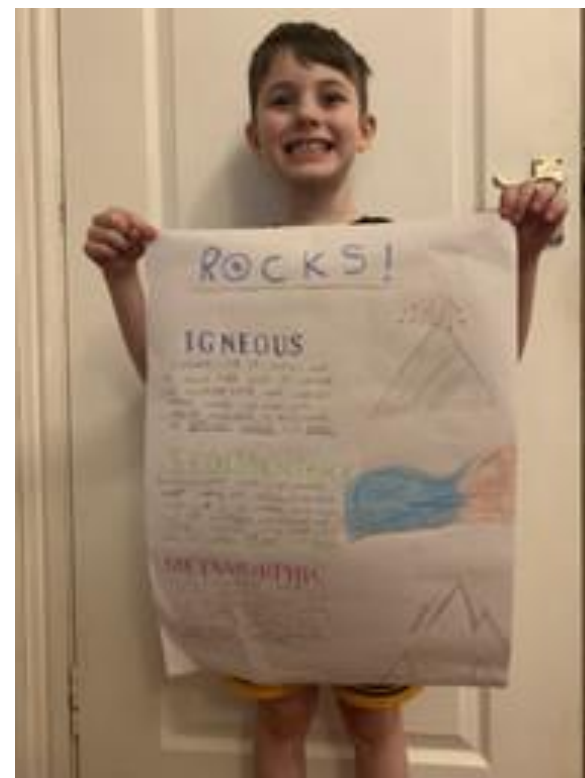
Sedimentary



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Metamorphic

Look at these wonderful posters about igneous, sedimentary and metamorphic rocks.



Watch this short video on the 3 different types of naturally occurring rocks. Make a few notes about each type.

<https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/zsgkdmn>

<https://www.youtube.com/watch?v=ty2Za-O9h6w&safe=active>



This video is slightly longer!




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# Natural Rocks

## Igneous Rock


Far under the ground, the temperature is hot enough to melt the rock into a liquid. This is called molten rock. Igneous rocks are formed from this molten rock in two ways.

### Intrusive Igneous Rocks:

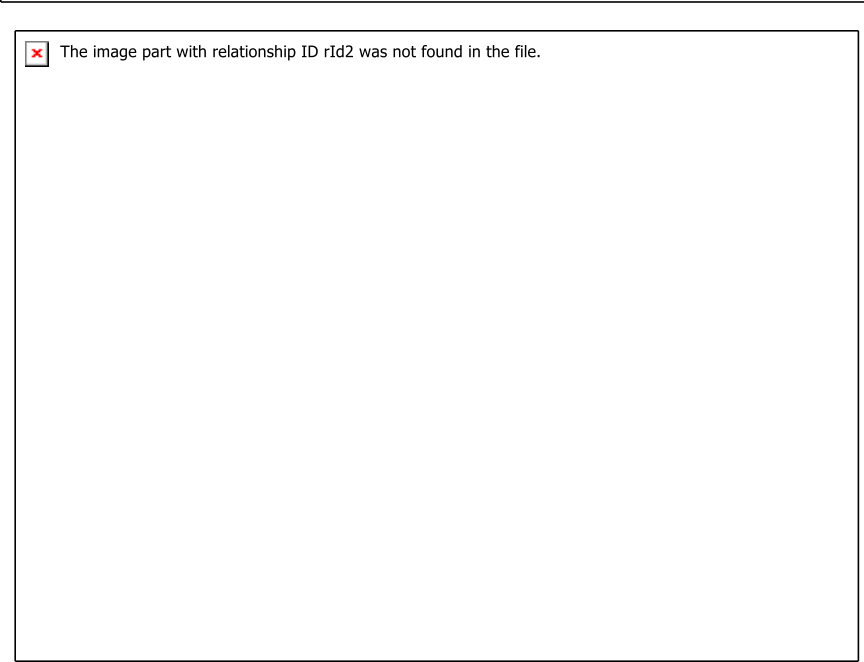
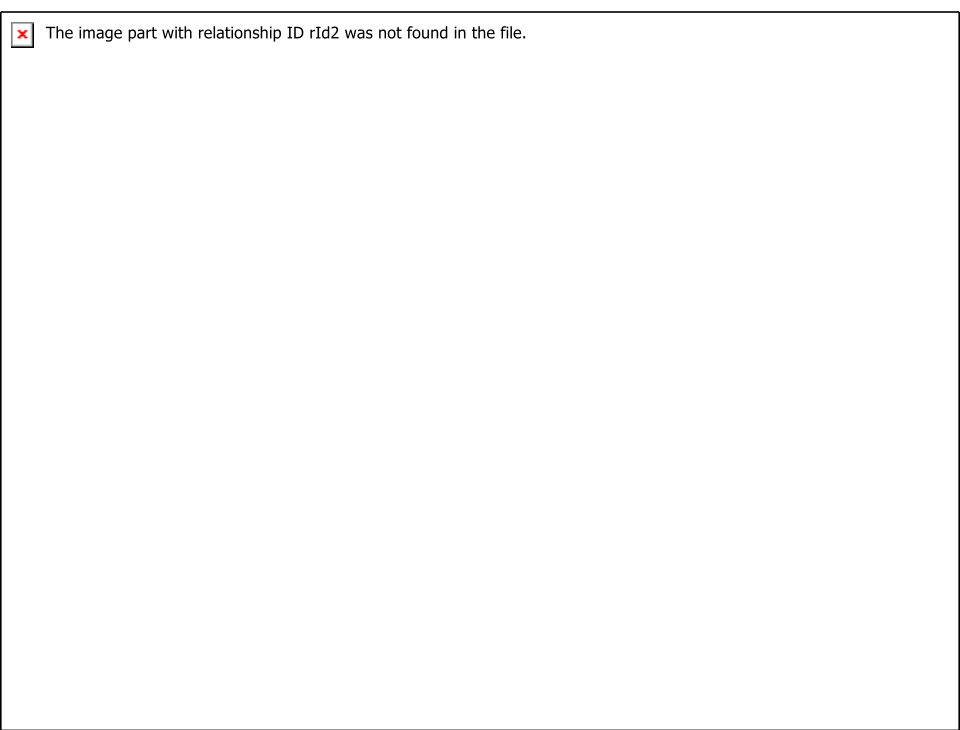
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Molten rock that remains underground is called magma. When magma cools and hardens it becomes a type of intrusive igneous rock.  
(Intrusive = internal = inside)


### Extrusive Igneous Rocks:

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Molten rock that comes out of the ground is called lava. When lava cools and hardens it becomes a type of extrusive igneous rock.  
(Extrusive = external = outside)



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Today we are going to investigate the properties of rocks.

For today's lesson you need to either collect 7 or 8 different rocks from your garden, pavement or local area (maybe when you go on a walk) If you can't do that, please don't worry, just have a go at the additional work that is attached later.

Rocks have different properties, or features. They can be different:

Colours

Textures

Sizes



Like a geologist (an expert in studying rocks) we can use properties to classify or sort rocks into different groups.

Have a think about how we could sort rocks into different groups?

What properties could we use?



Draw a table like the one below in your home learning book. Take each rock and complete the table.

Rock	Picture	Colour	Texture (rough or smooth)	Lustre (shiny or dull)	Features
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

How could you organise these rocks into groups?





What criterion has been used to sort these rocks?



All these rocks are one colour



All these rocks are more than one colour





What criterion has been used to sort these rocks?



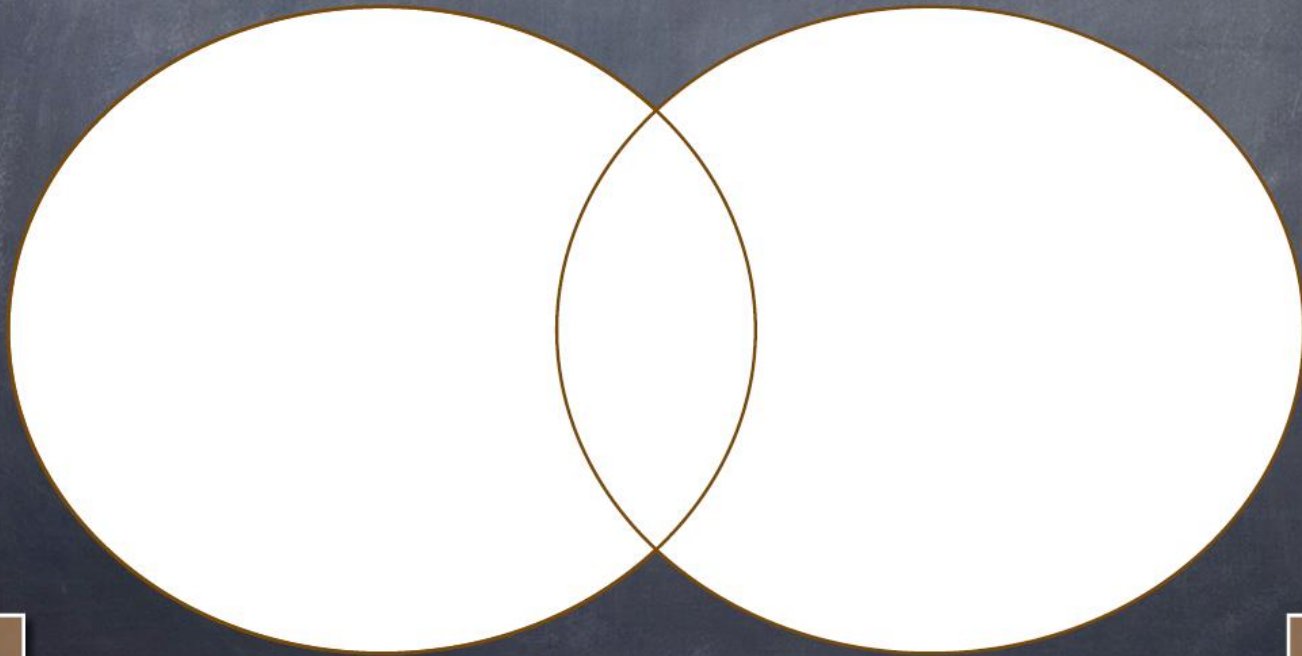
These rocks all have  
sharp edges



These rocks all have  
smooth edges



When you are sorting rocks according to their characteristics, there are lots of charts you can use to help you organise the rocks. This is a Venn diagram. The space in the middle of the two circles is for a rock that can fit into both categories.





Where would these rocks go in this Venn diagram?  
Would any of them be in the middle?



Do you agree with the way this Venn diagram has sorted these rocks? Why or why not?







This is a Carroll diagram. This enables you to sort the rocks using more than one category. Can you spot any rock that is in the wrong place?

	Smooth rocks	Rough rocks
Pale rocks		
Dark rocks		





	Smooth rocks	Rough rocks
Pale rocks		
Dark rocks		

Is this rock dark or pale?  
Some people might  
disagree...

This rock is pale



Use the rock pictures on the next few slides. Cut them out and choose how you would like to sort them. You can use a venn diagram or a carroll diagram.

Rocks, Fossils and Soils

Picture Cards



Rocks, Fossils and Soils

Picture Cards







You can use this carroll diagram if you wish.

Can you sort rocks according to their characteristics and then record the results in the Carroll diagram below? When you have done the first one, think of your own categories for sorting rocks and complete the second Carroll diagram.



	Pale Rocks	Dark Rocks
Smooth Rocks		
Rough Rocks		


Pale Rocks

Dark Rocks



Smooth Rocks

Rough Rocks

To finish today's lesson watch this video on what different rocks are used for because of their properties.

<https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/zsgkdmn>