



Rocks and Soils

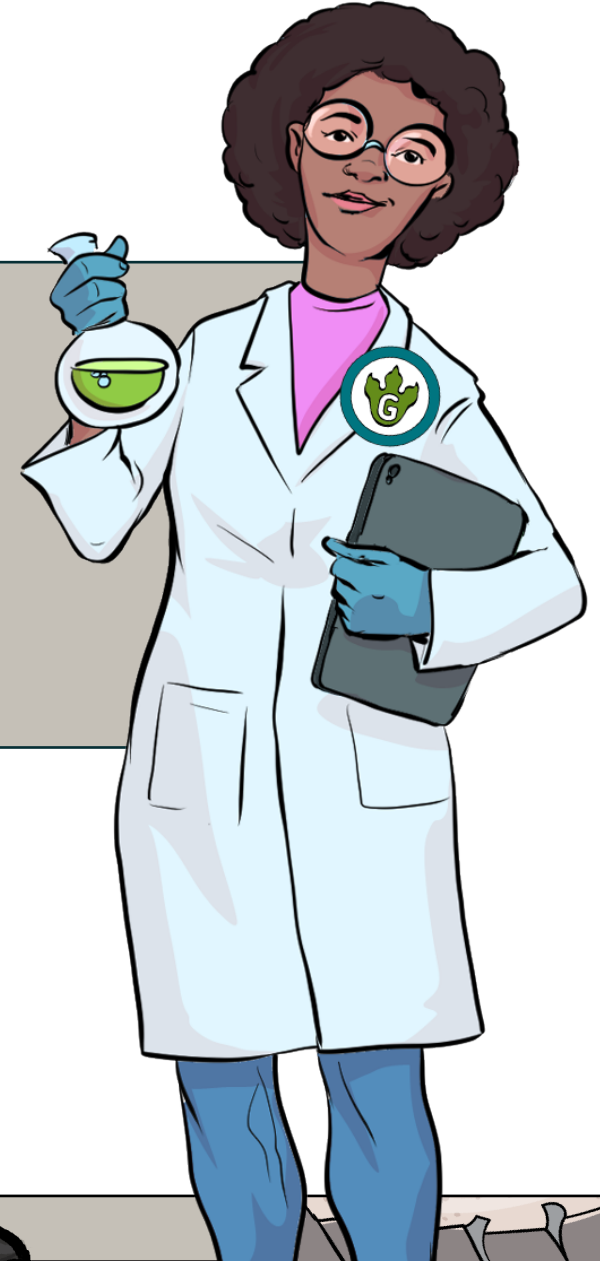
I can compare and group together different kinds of rocks on the basis of their physical properties.



Thinking Time



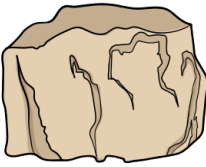
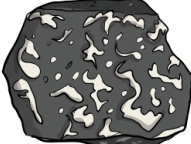


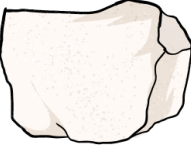




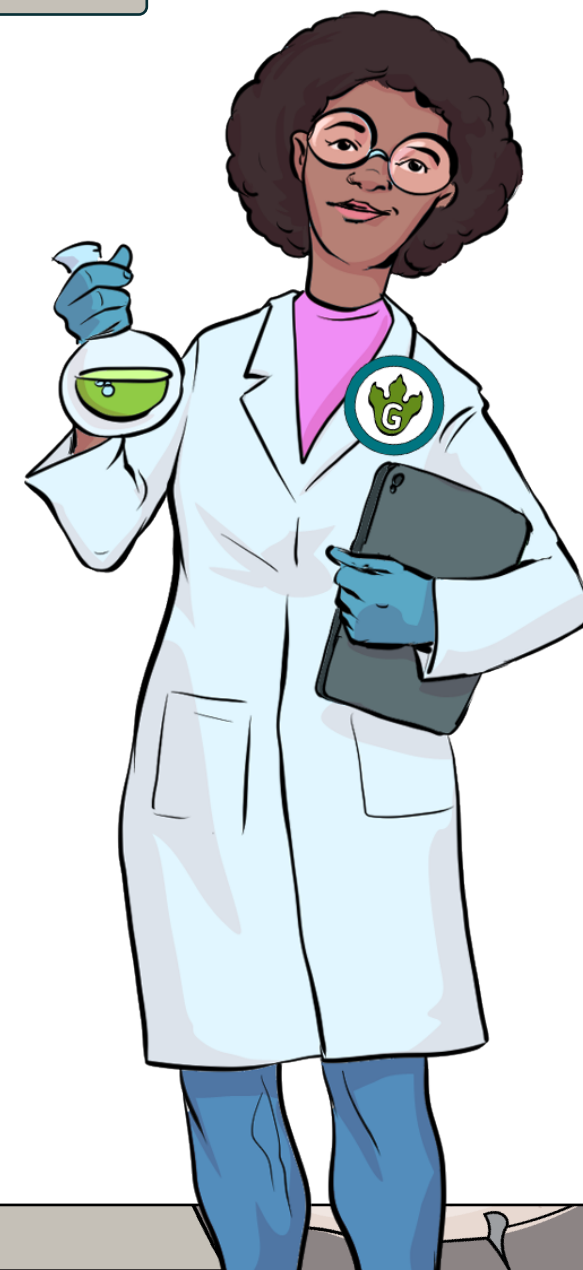
Can you remember the names
of any rocks we learnt about
last lesson?



Did you remember them all?



 marble	 granite	 sandstone
 basalt	 slate	 clay
 chalk	 pumice	 limestone



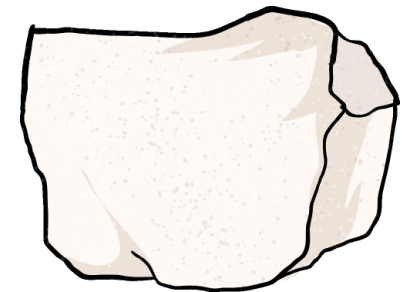
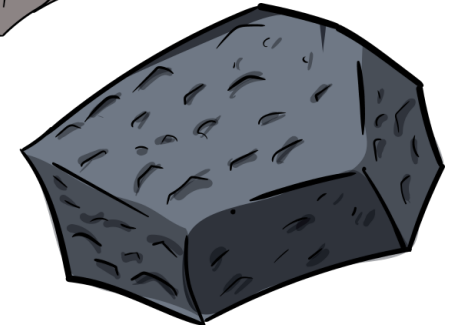
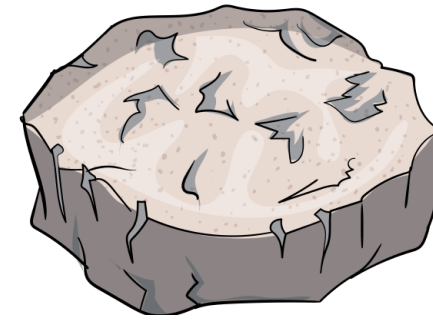
Rocks

What do you think of when you hear the word “**rock**”? Are **small stones** or **pebbles** rocks?

Are **boulders, rocks, stones and pebbles** all made of the same things?



Talk to your partner before we discuss as a class.



Rocks

What do you think of when you hear the word “**rock**”? Are **small stones** or **pebbles** rocks?

Are **boulders**, **rocks**, **stones** and **pebbles** all made of the same things?

A rock is any naturally occurring solid **mineral material** so **stones**, **pebble** and **boulders** are all classed as **rocks**.

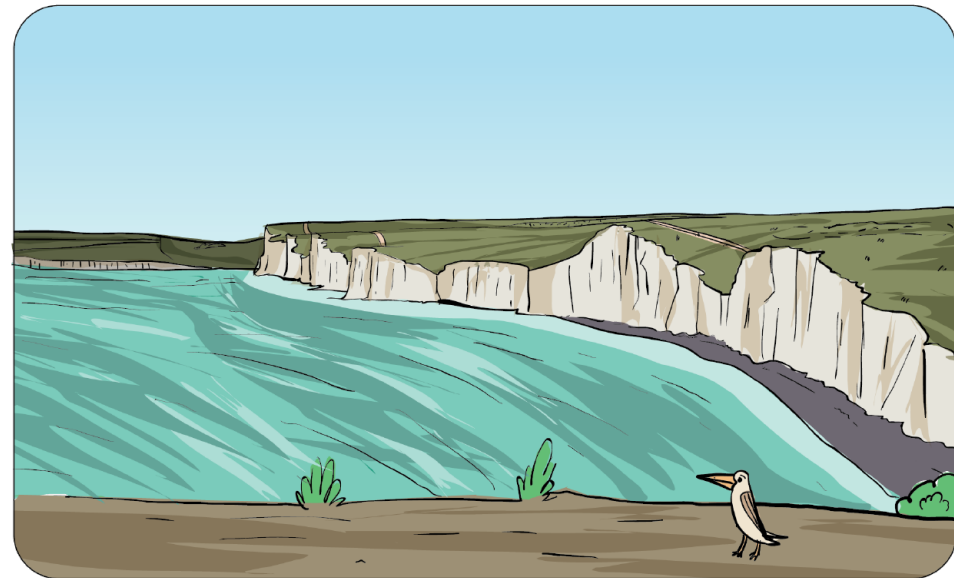


We use **rocks** for lots of different things everyday and you probably don't even realise! We use rocks in lots of different ways. They are useful **building materials**, and are often used in the **construction of roads and buildings**.

If you have ever been to **Dover**, you may have seen the '**White Cliffs**'.

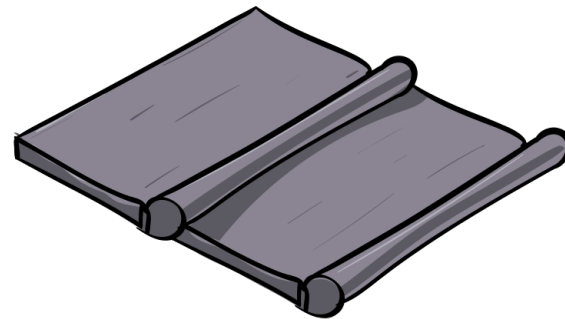
They are white because they are made up **mainly of chalk**.

We have learnt that **chalk** is a **type of rock**.





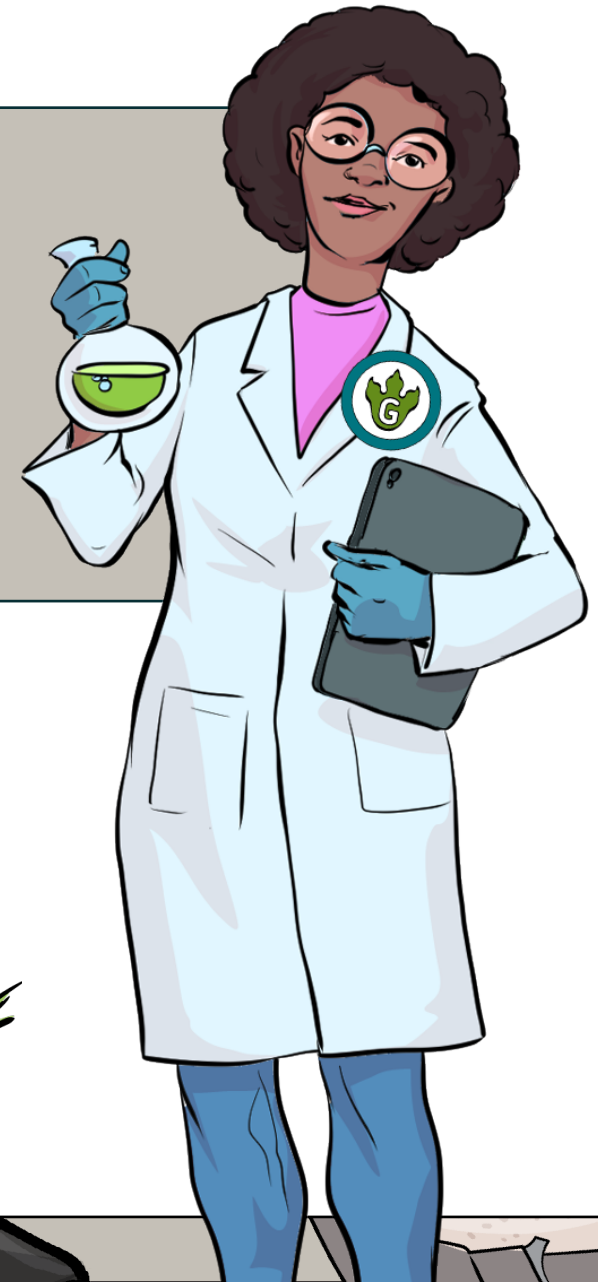
Marble is often used as a worktop in kitchens.
Lots of roofs are made from tiles of **slate**.





Some people use **pumice** to exfoliate and remove dead, hard skin from their feet.

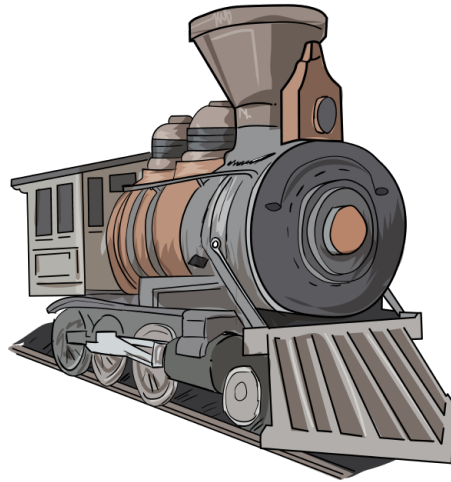
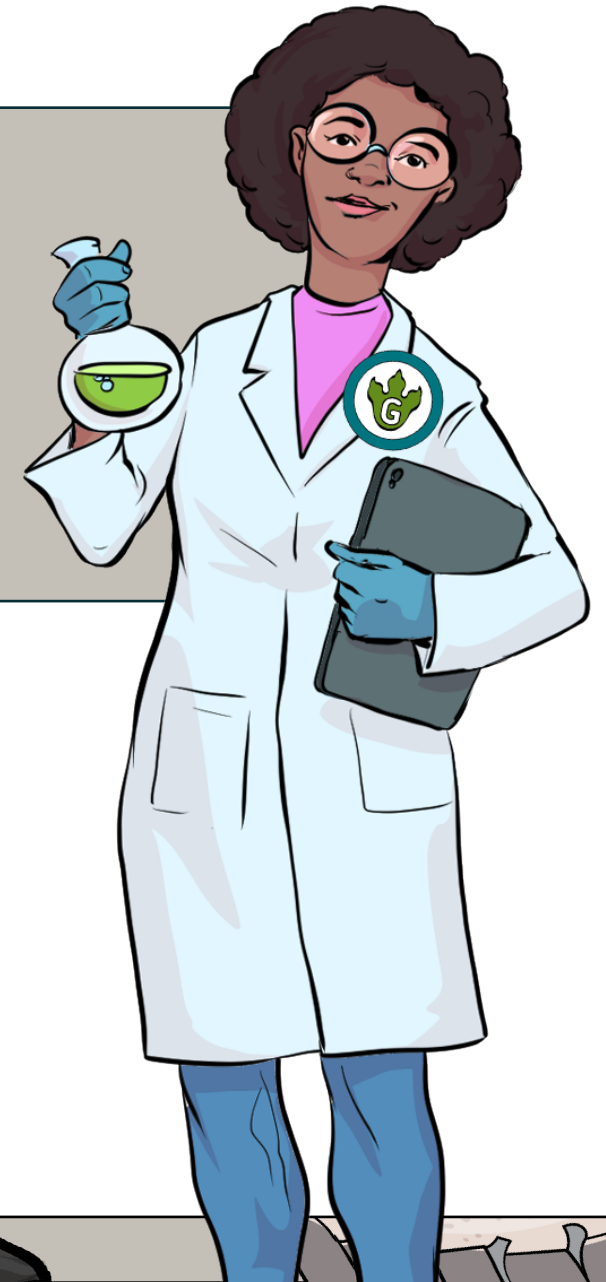
Some gravestones are made from **granite**.





Basalt is used on railways to help support the rails and hold everything in place.

Limestone is sometimes used as a building material instead of bricks.



Investigation Time

Today you are going to be **geologists** and carry out investigations to compare and group **different rocks**.

There are four different investigations where you will need to find the **best rock** for each job described.

New Word Alert!

Geologist – a person who studies rocks

Investigation 1

Instructions

We need to choose a rock that is **waterproof**.
We need a rock that is **waterproof**.

Choose **5 rock samples**.
Then give each rock a score from 1 to 5.

Investigation

Name of rock - _____

1 2 3 4 5

Name of rock - _____

1 2 3 4 5

Name of rock - _____

1 2 3 4 5

Conclusion

Which rock do you think is the **best**?
Explain your answer.

Investigation 3

Instructions

We need to choose a rock that will be suitable to be the **roof** of a new building.
It needs to be **waterproof** due to the amount of rain we have in the UK.

Choose **5 rock samples**. Test each rock by gently dripping water onto the rock using a pipette. If the rock 'soaks' up the water, then it is **permeable and not waterproof**.

Investigation

Name of rock - _____

Is it waterproof? _____

Name of rock - _____

Is it waterproof? _____

Name of rock - _____

Is it waterproof? _____

Put the rocks in order from most **permeable** to least permeable. Remember, if it is permeable it lets the water through so is not **waterproof**!

Conclusion

Which rock do you think would make the best **waterproof roof**? Explain your answer.

What did we find out?

Think about these questions and discuss with your partner before feeding back to the class.

1. What did you most enjoy about this lesson?
2. Tell me one thing you have learnt.
3. Did you find anything difficult?

