



Learning Question:

How can I explain Mary Anning's contribution to palaeontology?

Success Criteria:

- Explain what a palaeontologist does.
- Understand why Mary Anning's fossil findings were important.
- Describe how palaeontology has changed our understanding of prehistoric animals.

Vocabulary

- Fierce
- Inference

Palaeontology and Palaeontologists



Key words to learn!

Palaeontology

(pay-lee-on-to-lo-jee)

Palaeontologist

(pay-lee-on-to-lo-jist)

What could a palaeontologist be?

What would a palaeontologist do?

Use your previous learning in this unit to help you work it out.

As a group ...

- Read the information on your tables about Mary Anning:
- Create a poster that explains
 - Who Mary Anning was and why she was famous
 - What her life was like
 - What importance her work has for us today
 - Any additional interesting information

Remember to use your own words – be ready to present your ideas to the class

How can we organise our learning in writing?

- What sort of writing could we do ?
- What features would we need to use ?

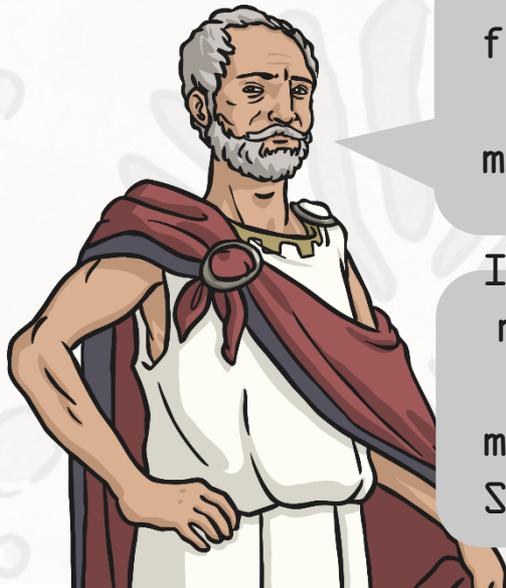
Shared Writing – Mary Anning

History of Ideas About Fossils

Fossils have been found by people throughout history.

It's only in the last two hundred years that we have begun to understand what these fossils really are and how they formed.

Here are some ideas from the past.



We ancient Greeks found fossils of marine animals. We realised that this meant some land used to be under water.

In ancient China, we found many fossils of dinosaurs although these were mistaken for dragon bones! Some people even used them in medicines!



Georges Cuvier

Believe it or not, in the past people were convinced that some animals had become extinct (died out)!

Cuvier proved that fossils found were of animals, who were similar to animals that were known like elephants, but which had died out due to natural disasters like floods.

This was a really important idea which led to the beginning of Palaeontology (the study of fossils) as it proved the existence of animals that humans did not know about as they had died



Georges Cuvier

The Breakthrough

Georges Cuvier named the fossil of a flying reptile Pterodactylus.



Cuvier's ideas were supported by evidence of fossils found in Britain, particularly those of Mary Anning.

Mary Anning



So who was Mary Anning and what did she find that was so important?

While watching the video see if you can work out the types of fossils she found.

What have you learnt about Mary Anning?

What types of fossils did she find?

How did she learn about fossils?

Why were her finds so important?

Why do you think she was not credited with finding the fossils?

Click me to watch the video!

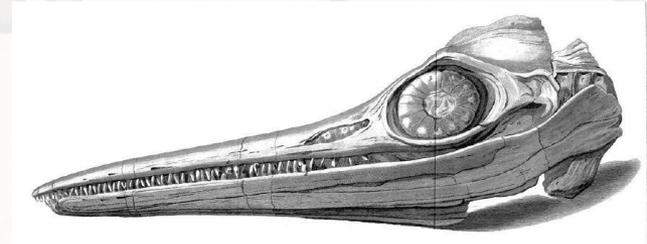


Mary Anning and Palaeontology

In Mary Anning's lifetime palaeontology (the study of fossils) was still a very new field of ideas and theories.

The fossils Mary Anning found were important for a number of reasons:

- Her major finds included the first ichthyosaur skull (and then whole skeleton), a complete plesiosaur skeleton and a partial skeleton of a pterosaur.
- The fossils provided evidence for the ideas of the early palaeontologists.



Ichthyosaur skull



A sketch of a plesiosaur

Mary Anning and Palaeontology

- Many scientists visited Mary Anning and she was able to help them understand more about the fossils she had found.
- She discovered 'bezoar' stones in the abdominal area of the ichthyosaur. These contained fish bones. She discussed her findings with William Buckland (a geologist and palaeontologist) who identified them as faeces and named them coprolites (which is now a type of trace fossil).



A model of a plesiosaur

Mary Anning and Palaeontology

The area where she collected her fossils is now known as the Jurassic Coast, due to the large number of pre-historic sea creatures found in that area.

She didn't chance upon the fossils. She realised that they were found at the Blue Lias cliffs.

These cliffs are made from layers of shale and limestone which formed over 200 million years ago!

As with all discoveries, there is an element of chance. Mary Anning lived in Lyme Regis.

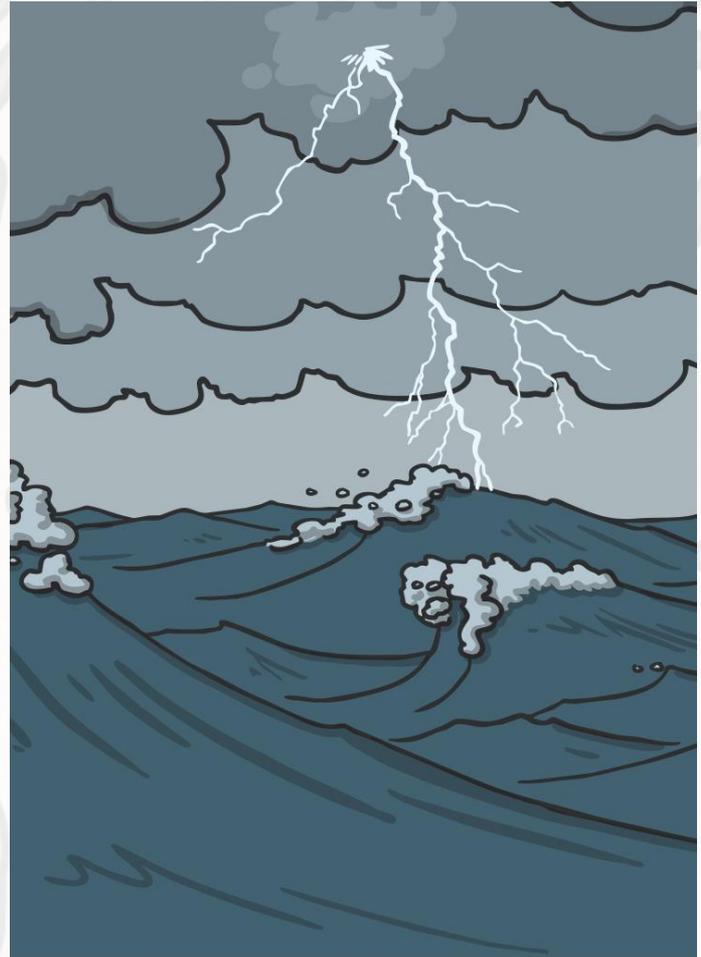


Mary Anning and Palaeontology

She also knew to search after a storm, as this eroded the rocks. This made it easier to hunt for fossils as they became more exposed.

In addition, she knew that she would have to search soon after the storm so that the smaller fossils were not washed away to the sea.

She was most definitely an expert fossil hunter!



Palaeontologist



Would you want to be a palaeontologist?

Why? Why not?

