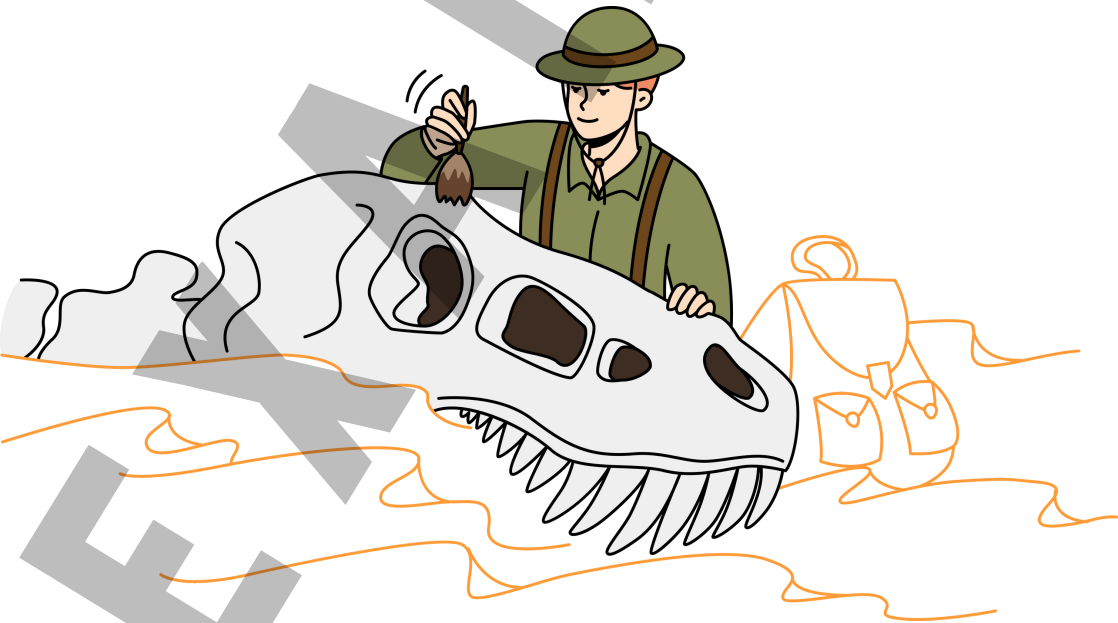


Name

ROCKS, FOSSILS AND SOILS WORKBOOK



LESSON OVERVIEW

Afternoon Session

We learnt about...





Morning Session

We learnt about...

SOILS

Learning Outcomes

- ☐ Understand what **soils** are made of
- ☐ Compare different soil types
- ☐ Find similarities and differences in soils

| Type of Soil | Description | Picture |
|----------------|--|--|
| Sandy Soil | <ul style="list-style-type: none">• Pale coloured• Large particles• Water drains easily |  |
| Clay Soil | <ul style="list-style-type: none">• Sticky• Small particles• Water doesn't drain easily |  |
| Chalky Soil | <ul style="list-style-type: none">• Light brown• Water drains quickly |  |
| Peat/ Top Soil | <ul style="list-style-type: none">• Dark, crumbly• Doesn't contain rock particles• Made of very old plants |  |

SOILS

Learning Outcomes

- ☐ Understand what soils are made of
- ☐ Compare different soil types
- ☐ Find similarities and differences in soils

Complete the table





| Type of Soil | Found | Describe and Compare (water, colour, feel) |
|-------------------|-------|---|
| Sandy Soil | | |
| Clay Soil | | |
| Chalky Soil | | |
| Peat/ Top Soil | | |

FOSSILS

Learning Outcomes

- ☐ How are fossils formed
- ☐ Identify different types of fossils

Complete the table

| Type of Fossil | Identify | Found | Describe |
|---|---|-------|----------|
| Ammonite (rare) |  | | |
| Gryphaea (Devils Toe Nail) (Common) |  | | |
| Belemnite (common) |  | | |
| Crinoid (extremely rare) |  | | |

FOSSILS

Learning Outcomes

- ☐ How are fossils formed
- ☐ Identify different types of fossils

Draw a fossil you found today

A large, empty rectangular box with a black border, intended for a student to draw a fossil. A large, light gray diagonal watermark reading 'EXAMPLE' is visible across the box.

FOSSILS

Learning Outcomes

- ☐ How are fossils formed
- ☐ Identify different types of fossils

How are fossils formed?

Fossilisation is the preservation of dead organisms and happens over many, many years.

- It is a rare process that needs specific conditions



Animal is buried by **sediment** and the soft parts **decay** leaving the skeleton behind



More sediment builds up around the **skeleton** and is compressed to form rock



Minerals in the groundwater replace the bone forming a fossil

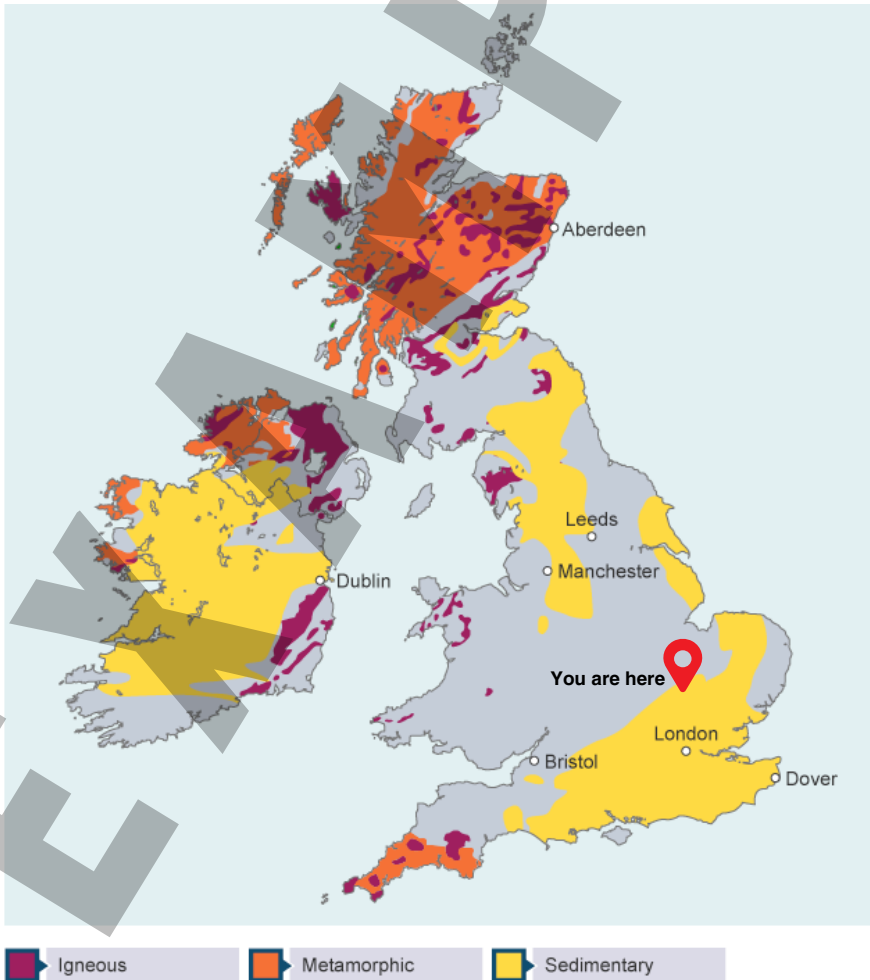


The rock rises to the surface and is worn away by **erosion**

ROCKS

Put a tick or a cross in each box

- ☐ Are we likely to find **Sedimentary** rock here?
- ☐ Are we likely to find **Metamorphic** rock here?
- ☐ Are we likely to find **Igneous** rock here?



ROCKS

Learning Outcomes

- ☐ Compare different rocks
- ☐ Define **porosity, permeable, impermeable**
- ☐ Identify if they contain grains, crystals, fossils

Fill in the blanks

Sedimentary Rock

- This is rock is usually _____ and _____.
- This is rock made from layers of _____, animal _____ and plants.
- This rock might _____.

Metamorphic Rock

- This is rock is usually _____ and _____.
- Sometimes is also hard granite (_____).
- It is formed by heat and _____ underground.

Igneous Rock

- This rock is formed when magma cools down and forms _____ rock.
- This happens slowly _____ or from a volcanic _____.

Sandstone, chalk, rocks, remains, crumble, slate, marble, paving, pressure, molten, underground, eruption

VOCABULARY

| Word | Definition |
|--------------------|---|
| Decompose | Rotting or breaking down by the help of bacteria and fungi |
| Erosion | Water, wind, and other natural forces cause rocks and earth to wear away |
| Eruption | Lava bursting out of a volcano |
| Fossil | A fossil is the preserved remains or traces of a dead organisms |
| Impermeable | Water does not pass through something easily |
| Minerals | Naturally occurring resources, such as copper. Found in soils |
| Molten | When magma (lava) from a volcano cools down it forms hard molten rock |
| Sediment | Small particles of rock |
| Skeleton | The bones of an animal left behind after decomposition |
| Soils | Soil is a mixture of tiny particles of dead rotting plants and animals, rock, air and water |
| Particles | Something that is really small and we can't see it with only our eyes. |
| Permeable | Water can easily pass through something |
| Porosity | How many air spaces or holes an object has |