# Caroline Haslett Primary School - Science Topic: Rocks Year 3

# What should I already know?

- The role of Mary Anning in palaeontology and the discovery of fossils.
- Soil contains nutrients and these help plants to grow.
- The meaning of the word absorb.
- That magma is molten rock that is formed in very hot conditions inside
- Why some materials are used for certain purposes because of their properties

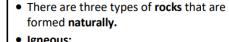
Vocabulary	
absorb	soak up or take in
bedrock	the solid rock in the ground which supports all the soil above
	it
decaying	gradually being destroyed by a natural process
grain	A <b>grain</b> of something such as sand or salt is a tiny hard piece
	of it
igneous	rocks that are formed by volcanic action or intense heat
imprint	a mark or outline made by the <b>pressure</b> of one object on another
leaf litter	decaying leaves
lear litter	molten rock that is formed in very hot conditions inside
magma	the earth
man-made	things are created by people
metamorphic	rocks that have had their original structure changed by
	pressure and heat
mineral	something that is formed naturally in rocks and in the earth.
molten	Molten rock, metal, or glass has been heated to a very
	high temperature and has become a hot, thick liquid
natural	things that exist in nature and are not made by people
nutrients	substances that help plants and animals to grow
palaeontology	the study of <b>fossils</b> as a guide to the history of life on Earth
permeable	if a substance is permeable, something such as water
	or gas can pass through it or soak into it.
porous	Something that is porous has many small holes in it, which
	water and air can pass through
prehistoric	the time in history before any information was written down
preserve	to protect from <b>decay</b>
pressure	force that you produce when you press hard on something
properties	the qualities or features that belong to something and make it recognisable
rock	a solid mass made up of <b>minerals</b> . Rock forms much of the
	earth's outer layer, including cliffs and mountains
sediment	solid material that settles at the bottom of a liquid, especial-
	ly earth and pieces of <b>rock</b> that have been carried along and
	then left somewhere by water, ice, or wind
soil	the substance on the <b>surface</b> of the earth in which plants
	grow
surface	the flat top part of something or the outside of it
surrounding	to be present all around
volcano	a mountain from which hot melted rock, <b>gas</b> , steam, and ash from inside the Earth sometimes burst.
weathered	affected by the weather

#### Investigate!

- Explore the types of **rocks** you can find in the local environment.
- Explain why rocks are used for different purposes based on their properties.
- Research the different living things whose **fossils** are found.
- Explore the different kinds of soils, including those you can find in the local environment.
- Compare different types of soils by saying what is similar and what is different using scientific vocabulary.
- Investigate what happens when rocks are rubbed together.
- Investigate what happens to rocks when they are in water.
- Sort different types of rocks based on how rough or smooth they are, whether they have grains or crystals, how permeable they are, how easily they can break down, how strong they are and what they look like.

# What will I know by the end of the unit?

What are the different types of rocks?



# Igneous:

- When molten magma cools, igneous rocks are formed.
- This either cools and forms rocks under the earth's surface, or flows out of erupting volcanoes as lava and may mix with other minerals.
- Examples include granite and bas-
- This type of rock is strong, hardwearing and non-porous.

# Sedimentary:

- Sometimes, little pieces of rocks that have been weathered can be found at the bottom of lakes, seas and rivers This is called sediment.
- Over millions of years, layers of this sediment builds up forming sedimentary rocks.
- Examples include limestone and
- Sedimentary rocks are porous and can easily be worn down.

#### Metamorphic:

- When some igneous and sedimentary rocks are heated and squeezed (**pressured**), they form metamorphic rocks.
- Examples include slate and marble.
- Metamorphic rocks are strong

Bricks and concrete are not rocks because they are man-made.

#### What are fossils?

- Fossils are the remains of prehistoric
- They are usually formed when a living thing (plant or animal) dies and the body is covered up or buried by sediment over tens of thousands of vears.
- Some fossils are formed when the tough bones and teeth in animals, and the woody part of plants are preserved.
- Other fossils are made from imprints in surrounding sedimentary rock such as footprints or **imprints** from shells.
- Fossils tell us about the Earth and about life that existed hundreds of thousands and millions of years ago.

### What is soil?



- Soil is made from pieces of rock, minerals, decaying plants and water.
- When **rock** is broken down into small grains, soil is formed.
- There are layers of soil:
  - above the soil is leaf litter and recently decaying plants.
  - as the **soil** becomes deeper, the **rock** grains become larger until bedrock is reached.



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