

Goonhavern Primary School- Science

TOPIC: Rocks

YEAR: 3

STRAND: Chemistry

What should I know already?	What will I know by the end of the unit?	
<ul style="list-style-type: none"> • Soil contains nutrients and these help plants to grow. • The meaning of the word absorb. • Why some materials are used for certain purposes because of their properties 	<p>What are the different types of rocks?</p>	<p>There are three types of rocks that are formed naturally.</p> <p>Igneous:</p> <ul style="list-style-type: none"> • 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 basalt. • This type of rock is strong, hardwearing and non-porous. <p>Sedimentary:</p> <ul style="list-style-type: none"> • 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 chalk. • Sedimentary rocks are porous and can easily be worn down. . <p>Metamorphic:</p> <ul style="list-style-type: none"> • When some igneous and sedimentary rocks are heated and squeezed (pressured), they form metamorphic rocks. • Examples include slate and marble. Metamorphic rocks are strong. <p>Bricks and concrete are not rocks because they are man-made.</p>
	<p>What are fossils?</p>	<ul style="list-style-type: none"> • Fossils are the remains of prehistoric life. • 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 years. • 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?	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ above the soil is leaf litter and recently decaying plants. ○ as the soil becomes deeper, the rock grains become larger until bedrock is reached.

Vocabulary	
Bedrock	The solid rock in the ground which supports all the soil above it.
Decaying	Gradually being destroyed by a natural process.
Grain	A grain 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.
Magma	Molten rock that is formed in very hot conditions inside the earth.
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.
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.
Sediment	Solid material that settles at the bottom of a liquid, especially earth and pieces of rock that have been carried along and then left somewhere by water, ice, or wind.
Volcano	A mountain from which hot melted rock, gas, steam, and ash from inside the Earth sometimes burst.

Investigate!
<ul style="list-style-type: none"> • Explore the types of rocks you can find in the local environment. • Explain why rocks are used for different purposes based on their properties. • 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.

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Q1	Start of Unit	End of Unit	Q3	Start of Unit	End of Unit
What type of rock comes from a volcano?	Sedimentary	Sedimentary	Why are fossils important?	They can be used for building	They can be used for building
	Igneous	Igneous		They are worth lots of money	They are worth lots of money
	Metamorphic	Metamorphic		They tells us about life millions of years ago	They tells us about life millions of years ago
Q2	Start of Unit	End of Unit	Q4	Start of Unit	End of Unit
Which rock type is the most porous?	Pumice	pumice	Which of these rocks are man made?	brick	brick
	granite	granite		Chalk	Chalk
	limestone	limestone		concrete	concrete

	Marble	Marble		slate	slate