St Julie Catholic Primary School - Science		
Topic: What do rocks tell us about the way the Earth was formed?	Year: 3	Strand: Rocks and Soils

What should I already know?

There are different types of materials – wood, glass, rock
Different materials have different properties
Materials are used for particular purposes
Shapes of some solid objects can be changed by squashing, twisting, bending

Significant scientists

Mary Anning *(1799-1847)*

Mary Anning was an English **palaeontlogist** and fossil collecter. She became known around the world for important finds she made in Jurassic fossil beds in Dorset.

Palaeontlogist = a person who studies ancient bones and fossils

Holly Betts

PhD student, University of Bristol

Holly is a palaeobiologist. She is researching how fossils can help us to understand our evolutionary history.

Key vocabulary

rock	A naturally occurring material made of minerals. They can be different sizes: Stones, pebbles, boulders
fossil	The bones or other remains of living things are sometimes preserved in rocks as fossils.
soil	Ground up rock mixed with plant and animal remains.
extinct	A species (animal or plant) which no longer exisits
Palaeontlogist	A person who studies ancient bones and fossils

What I will learn in this unit

- Rocks are naturally occurring materials There are different rocks e.g. sandstone, limestone, slate, with different properties
- Rocks can be hard or soft
- They have different sizes of grain or crystal
- They may absorb water
- Soils are made up of ground down rock
- Some rocks contain fossils
- Fossils were formed millions of years ago
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In investigations, I will

- compare and group together different rocks.
- Describe how fossils are formed.

Sticky Knowledge: fossils, rocks, soil

I know fossils were formed millions of years ago.

I know plants and animals died and sank to the seabed.	**Animal fossil** 
I know the soft parts decayed away leaving the hard parts.	
I know the hard parts were covered and squashed by many layers of sand and other materials.	**Plant fossil** 
I know the animal/plant matter dissolves and is replaced by minerals, leaving a replica of the original bone called a fossil.	

I know there are different sedimentary rocks

Sandstone	Chalk	Limestone
		

Chalk is used for drawing because it is crumbly and soft.

I know there are different metamorphic rocks

Quartz	Slate	Marble
		

Marble is good for gravestones because it does not rub away.

I know there are different igneous

Basalt	Pumice	Granite
		

Granite is good for worktops because it is hard and does not absorb water.

I know there are different soils

Peat	Sandy
	
Chalky	**Clay**
	

St Julie Catholic Primary School – Science		
Topic: How can an athlete move so quickly?	**Year: 3**	**Strand: Biology: Animals inc Humans**

Key vocabulary	
nutrients	Useful substances that help animals and plants grow.
carbohydrates	These are the foods that give us energy. They are found in sugary and starchy foods.
proteins	These are important so the body can grow, repair and build muscle.
vitamins and minerals	Substances found in foods which keep us healthy. These are found in fruit and vegetables.
fibre	This lets food pass quickly through your body. It helps keep your digestive system in good working order.
skeleton	This supports and protects the body, allowing it to move.
bones	The hard parts inside your body which form your skeleton.
muscles	These are attached to bones and help us move.
joints	The place where 2 bones meet.

I should already know that:

- Animals including humans have offspring
- Basic stages in the life cycle of some animals and humans
- Basic needs of survival: food, water, air
- The importance of exercise and hygiene
- The need to eat a healthy diet
- The names of basic parts of the body

Significant scientist	
Wilhelm Conrad Rontgen*(1845-1923)* 	Wilhelm Rontgen was a German physicist who discovered X-rays in 1895. He was awarded many honours and won the Nobel Prize for physics in 1901.

By the end of this topic I will:

1. **Know** that animals cannot make their own food
2. **Know** that animals / humans need to eat in order to get nutrients
3. **Know** that food contains a range of nutrients: carbohydrates, proteins, vitamins, minerals, fats, sugar, Water and fibre
4. **Know** that a balanced of these nutrients is required for a healthy diet
5. **Know** that a piece of food will often contain a range of nutrients
6. **Know** that humans and some other animals have skeletons and muscles for support, protection and movement.

STICKY KNOWLEDGE

Know the skull protects our brain.

Know the bones and muscles in our legs:
help us to move
help us to stand

Know there are similarities and differences between the human and dog skeleton.

Know animals/ humans need to eat food to get nutrients

Know that one piece of food can provide a range of nutrients.