St John Fisher RC Primary School
Year Three Knowledge Organiser – Spring One - Science

Lesson 1-2: Fossils

- How to sort fossils into plants or animals
- That fossils further underground are usually older fossils
- How to observe closely to compare different fossils
- How to explain the process of fossilisation

Lesson 3,4 and 5: Soils

- There are four different types of soil
- Soil is made from organic matter, water and rocks
- Organic matter contains dead animals, and dead leaves and plants
- How to carry out an investigation to sort soil into different groups
- How to look closely with a magnifying glass and use a sieve to find out what is in a soil sample
- Some animals live in soil
- Soil can absorb water
- How to carry out an experiment to see which soil absorbs the most water

Key facts to remember

• A fossil is the remains or trace of a living thing that lived a long time ago. • Both animals and plants can become fossils. • Older fossils are found deeper underground. • Fossils are usually formed from the shells or bones of living things. • Animal footprints and tracks can also form fossils

• Fossilisation is the process that explains how a fossil is formed. • Fossilisation is a rare process that only occurs under certain conditions. • When an animal dies, the soft parts of its body break down, leaving behind the hard parts such as the skeleton. • The process of fossilisation takes thousands of years

Key facts to remember

• Organic matter is the remains of dead plants and animals. • Soils are made from rocks, organic matter and water. • There are different types of soil including sandy, chalk, clay and peat soil. • These soils have different properties.

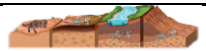
• Many living things need soil to survive. • Soils can act as a habitat for many small animals. • Soils provide nutrients for plants. • Soils can also prevent flooding, as they absorb water.

filter paper

filter funnel

measuring cylinder

absorb – to take in water

fossil	The remains or trace of a living thing that lived a long time ago.	
rock	A natural material found on or underneath the earth's crust.	
skeleton	A collection of bones.	
shell	A hard covering on the outside of an animal's body.	
fossilisation	The process through which a fossil is formed.	
sediment	Small pieces of soil, sand, gravel and small rocks.	

soil	A mixture of small rocks, organic matter and water.	
sandy soil	A soil made up of lots of sand and some clay.	
clay soil	A soil containing lots of clay which becomes sticky when wet.	
peat soil	A soil that contains lots of water and organic matter.	
chalky soil	A soil that contains lots of chalk or limestone.	
organic matter	The remains of dead animals and plants.	
nutrients	Substances found in soil that help plants grow.	
habitat	An area where animals and plants live.	
deforestation	The removal of large areas of trees or plants by humans.	

independent variable (what will change) – the type of soil, such as sandy, clay, chalky and peat soil

dependent variable (what will be measured) – the volume of water entering the measuring cylinder

controlled variable (what is kept the same) – the mass of the soil used in the experiment, the type of filter paper, the amount of water added to each soil sample