Colney Heath School ~ Science		
Topic: Rocks and Fossils	**Year: 3**	**Chemistry and Earth Science**

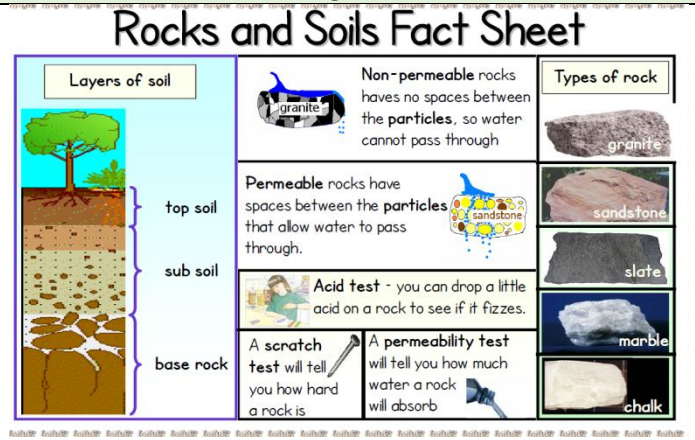
What should I already know?

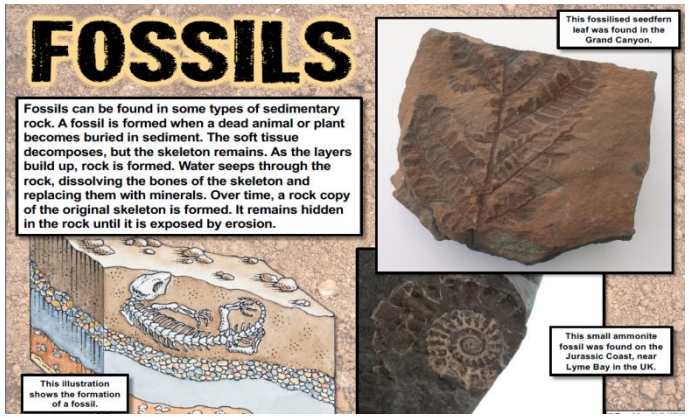
A rock is hard substance.
Some materials are used for certain purposes because of their properties.
Some materials are natural and some are man-made.

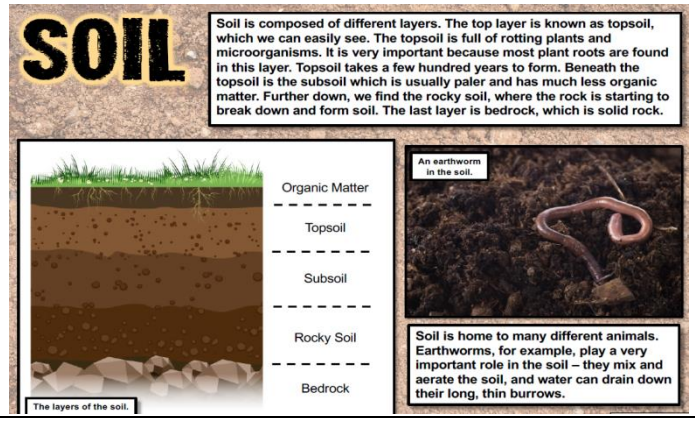
Vocabulary

Decayed	Gradually being destroyed by a natural process.
Bedrock	The solid rock in the ground which supports all the soil above it.
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.
Properties	the qualities or features that belong to something and make it recognisable
Rock	A solid mass made up of minerals. Rock forms much of the earth's outer layer, including cliffs and mountains
Volcano	A mountain from which hot melted rock, gas, steam, and ash from inside the Earth sometimes burst.

Diagrams







Vocabulary

Igneous	Rocks that are formed by volcanic action or intense heat.
Imprint	A mark or outline made by the pressure of one object on another.
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.
Palaeontology	The study of fossils as a guide to the history of life on Earth.
Sedimentary	Rocks that are formed from layers of sediment (little pieces of rocks that have been weathered and can be found at the bottom of lakes, seas and rivers).
Pressure	Force that you produce when you press hard on something
Fossils	The remains or impressions of a prehistoric plant or animal embedded in rock.

The Big Picture	By the end of our project we will know that
Chemistry C1: All matter (stuff) in the universe is made up of tiny building blocks. C2: The arrangement, movement and type of the building blocks of matter and the forces that hold them together or push them apart explain all the properties of matter (e.g. hot/cold, soft/hard, light/heavy, etc). C3: Matter can change if the arrangement of these building blocks changes. Earth science E1: The Earth is one of eight planets that orbit the sun. E2: The Earth is tilted and spins on its axis leading to day and night, the seasons and the climate. E3: The Earth is made up of several layers, including a relatively thin rocky surface which is divided into tectonic plates, and the movement of these plates leads to many geologic events (such as earthquakes and volcanoes) and geographical features (such as mountains.)	There are three kinds of rocks: igneous, sedimentary and metamorphic. The Earth has a solid crust made up of tectonic plates with molten rock beneath. Granite and basalt are types of igneous rock and igneous rocks form from molten rock below the Earth's crust. Limestone and sandstone are types of sedimentary rock which form when small, weathered fragments of rock or shell settle and stick together, often in layers. Marble and slate are types of metamorphic rock which form when rocks in Earth's crust get squashed and heated in processes such as when tectonic plates press against each other. Fossils form when a plant or animal dies and is quickly covered with silt or mud so that it cannot be rotted by microbes or eaten by scavenging animals. In time layers of sediment build, squashing the mud and turning it to stone around the dead plant or animal. The materials in the body are replaced by minerals that flow in water through the rock, leaving a rock in the shape of the animal or plant that was once there. Soil is made from tiny particles of rock broken down by the action of weather (weathering).