Science – Rocks and Soil – Spring Term 2

Prior Knowledge

- The ground is made of soil, sand, stones, and rock.
- Natural materials can be hard, soft, rough, smooth, or crumbly.
- Soil helps plants grow.
- Rocks and pebbles come in different shapes, sizes, and colours.
- Weather can slowly change rocks and the ground.
- Soil can be dug, moulded, and explored in play.
- The Earth has land, water, and rock in its environment.
- Fossils can be seen in books, pictures, and museums.
- Scientists study nature, the Earth, and things like rocks and fossils.

Key Vocabulary

Igneous	rock made from cooled magma or lava.
Sedimentary	rock made from layers of sand, mud, and tiny pieces of rock squashed together.
Metamorphic	rock that has been changed by heat and pressure.
Fossils	traces or remains of plants or animals that lived long ago.
Permeable	lets water pass through.
Impermeable	does not let water pass through.
Sediment	tiny pieces of rock that settle at the bottom of water.
Lava	magma that reaches the surface of the Earth.

Core Knowledge

- There are three types of rock: igneous, sedimentary and metamorphic.
- Igneous rocks are made when hot, melted rock (magma) cools down.
- Sedimentary rocks are made from layers of tiny rocks, mud, shells and bones squashed together.
- Metamorphic rocks are rocks that have been changed by lots of heat and pressure.
- Sedimentary rocks have layers, and some metamorphic rocks have bands or stripes.
- Rocks can be tested by seeing if they fizz with acid, scratch or get scratched, or soak up water.
- Fossils are formed when plants or animals are buried, and their shape is replaced by minerals over time.
- We can explore palaeontology by making our own fossils and digging them up like scientists.
- Soil is made from broken rock, dead plants, dead animals, and tiny creatures like worms.
- The Earth has layers: the crust (rock), the mantle (hot magma), and the core, which is very hot and mostly iron.

Diagrams