



## Science Vertical Concepts

### 5. The composition of the Earth and its atmosphere and the processes occurring within them shape the Earth's surface and its climate

#### **Nursery**

Use appropriate language to describe the weather

#### **Year 1**

#### **Year 3**

Much of the solid surface of the Earth is covered in soil, which is a mixture of pieces of rock of various sizes and the remains of organisms. Some soil also contains air, water and some nutrients.

There are many different kinds of rock with different composition and properties.

Beneath the Earth's solid crust is a hot layer called the mantle. The Earth's crust consists of a number of solid plates which move relative to each other, carried along by the movements of the mantle. The formation of mountains, earthquakes, and volcanic activity are likely to occur at these cracks (Geography -Yr3 Spring Mountain and Volcanoes, Yr4 Summer Earthquakes).

#### **Year 5**

There is less and less air further away from the Earth's surface; space is a vacuum.

The action of water wears down rock gradually into smaller pieces (Geography – Yr5 Spring Investigating water).

Light from the Sun warms the Earth's surface and the heat is trapped by the Earth's air. This is known as the greenhouse effect (Geography – Yr5 Summer Climate across the world).

#### **Reception**

There are different environments around the world (forest, desert, etc.)  
Different seasons (Autumn, Spring, Winter) bring changes to; weather and animals.

#### **Year 2**

All living things needs food to give them energy.

The arrows in a food chain show where energy is transferred from and to.

#### **Year 4**

#### **Year 6**

#### **Year 7/KS3**

Weather is determined by the conditions of the air. The temperature, pressure, direction and speed of the movement and the amount of water vapour in the air combine to create the weather.

Radioactivity decay of material inside the Earth since it was formed is its internal source of energy.