Orton Wistow Primary School – Curriculum Plan

Subject : Geography | **Year : 4** | **Term : Autumn**

Vocabulary

Define the word and include etymology if useful.

Humus, topsoil, subsoil, bedrock - See Layers of Soil in the Useful Information.

Crust, mantle, outer core, inner core - See Layers of the Earth in the Useful Information.

Eruption cloud, conduit/main vent, crater, lava, magma chamber - See Parts of a Volcano in the Useful Information.

Active - A volcano that has erupted in the last 10,000 years, not necessarily venting lava or gases now.

Dormant - A volcano that has not erupted for a considerable length of time, but is still capable of erupting.

Extinct - No longer active.

Tectonic Plates - Several large pieces of the Earth's lithosphere, which participate in plate tectonics.

Magnitude - A measure of the energy released by an earthquake (e.g. on the Richter scale).

Knowledge
What children will know

Learning	Teaching	Assessment
Remembering	Telling	Testing

Know the different layers of soil.

Know the different layers that make up the Earth.

Know the key parts of a volcano.

Know that earthquakes have different strengths that are measured on a **scale**.

Know that an undersea earthquake or volcanic eruption often causes a **tsunami**.

Know how **tornadoes** are formed.

Understanding
What children will understand

Learning	Teaching	Assessment
Practising	Coaching	Observing

Understand where most volcanoes are found.

Understand how volcanoes are formed showing how **tectonic plates** move.

Understand how an earthquake is caused.

Understand how to keep safe during an earthquake: drop, cover, hold, stay put.

Understand how scientists collect data about storms.

Skills
What children will be able to do

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Describe what you find underground.

Explain how volcanoes are formed.

Explain how volcanoes affect people's lives and the environment.

Use **extinct**, **dormant** and **active** when describing volcanoes.

List the risks and benefits of living near to a volcano.

Explain what causes earthquakes and how they are measured.

Compare the strength of earthquakes.

Explain how to keep safe during an earthquake.

Describe a tsunami and the damage caused by one.

Explain what causes tsunamis and how they affect people.

Explain how tornadoes form.

			
Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do

Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
Richter Scale- A numerical scale for expressing the magnitude of an earthquake. **Mercalli Scale** - A twelve-point scale for expressing the local intensity of an earthquake, ranging from I (virtually imperceptible) to XII (total destruction). **Tsunami** - A very large and destructive wave, generally caused by a tremendous disturbance in the ocean, such as an undersea earthquake or volcanic eruption. **Tornado** - A violent windstorm characterised by a mobile, twisting, funnel-shaped cloud.							Describe how scientists collect data about storms.		

Useful Information

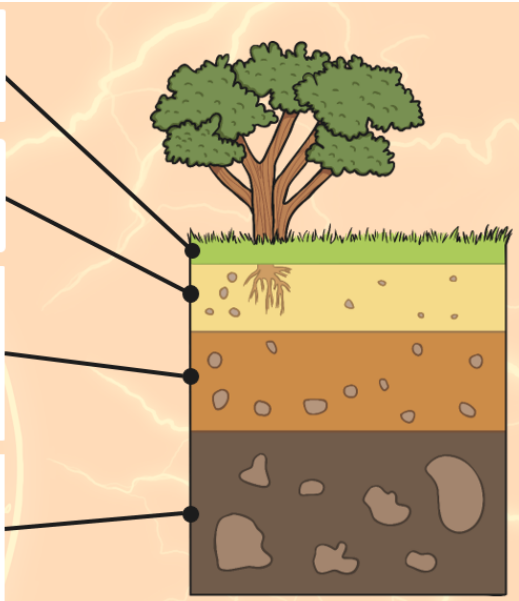
Layers of Soil:

Humus
The very top layer of soil, made up of dead and rotting leaves and animals.

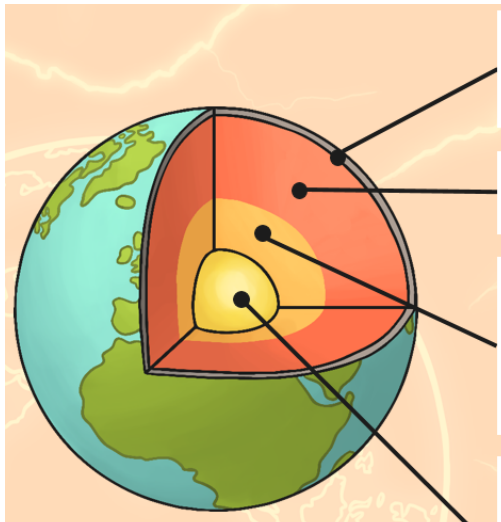
Topsoil
Where plants grow their roots. Very few rocks.

Subsoil
More rocks and stones in clay. This soil is full of nutrients. Tree roots may reach into this soil. You might find fossils here.

Bedrock
A mass of rock such as granite, basalt, quartzite, limestone or sandstone. You might find fossils here.



Layers of the Earth:



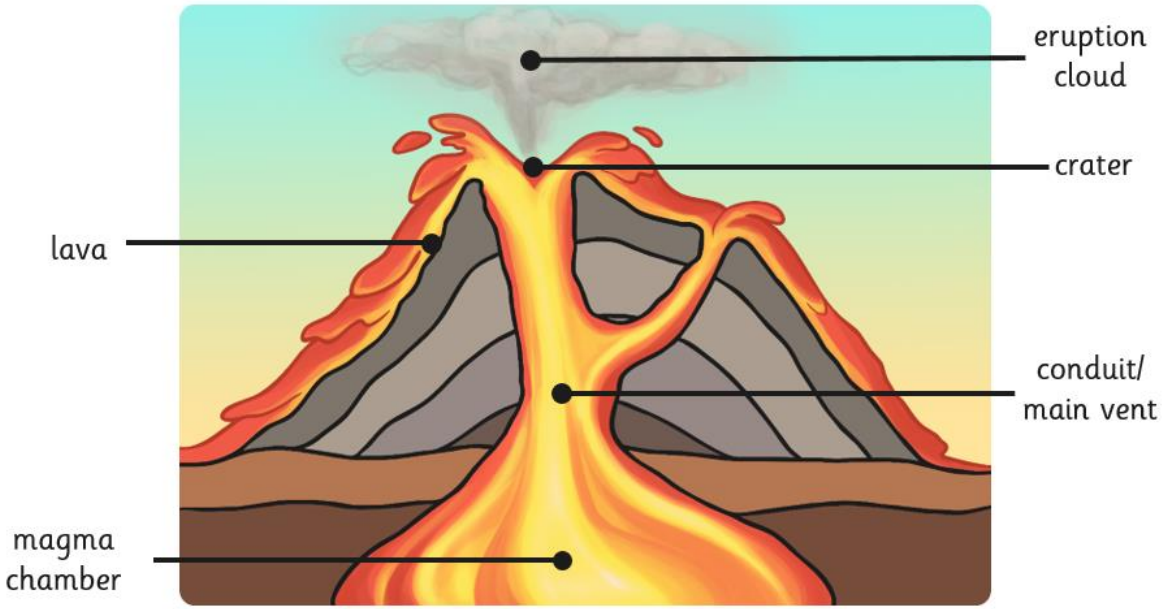
The **crust** is the thin outer layer of cold hard rock that covers the world (10km-90km thick).

The **mantle** (extremely hot rock that often flows like treacle) is 3,000 km thick.

The **outer core** is mostly made of iron with some nickel. It is over 4000°C. It is mostly liquid with some rocky parts. Because the outer core moves around the inner core, Earth's magnetism is created.

The **inner core**, which is made of iron and nickel, is the hottest layer at over 5000°C. It melts the metals in the outer core to form magma.

Parts of a Volcano:



Orton Wistow Primary School – Curriculum Plan

Subject : Geography

Year : 4

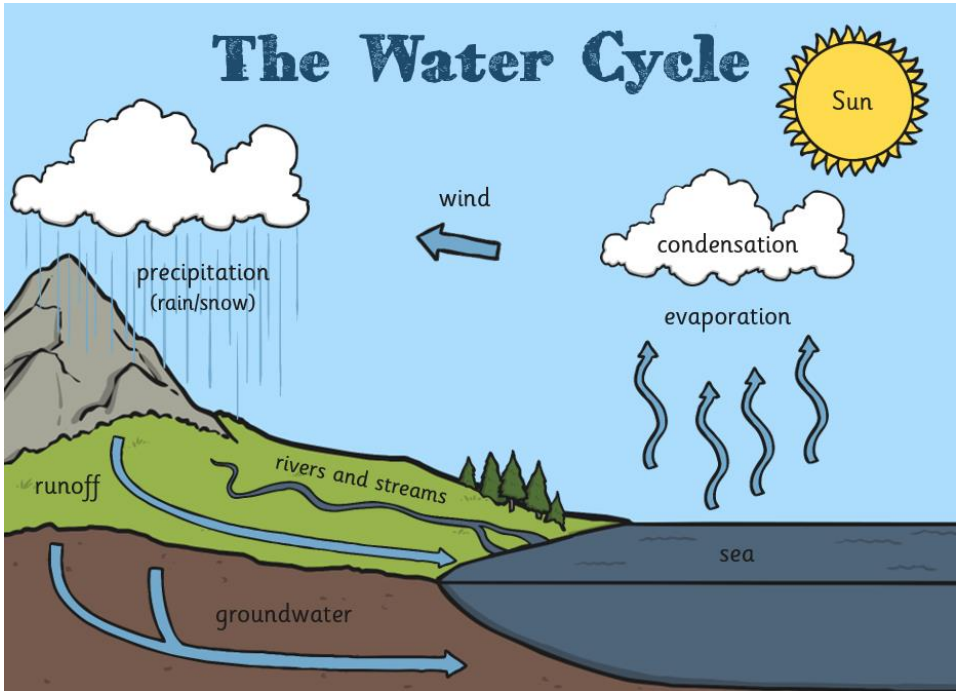
Term : Spring

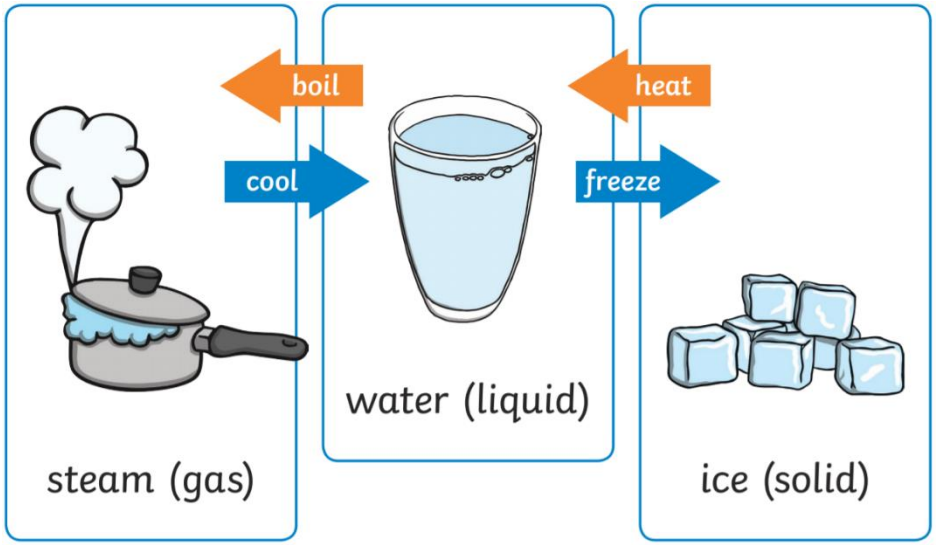
			
Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do

Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
Solid - That can be picked up or held, having a texture, and usually firm. **Liquid** - A substance that is flowing, and keeping no shape, such as water. **Melting** - The transition of matter from a solid state to a liquid state. **Boiling** - The point at which fluid begins to change to a vapour. **Freezing** – To lower something's temperature so that it freezes or becomes hard. **Flooding** – An overflow of water from a lake or other body of water due to excessive rainfall or other input of water. **The Water cycle: See Useful Information** - Evaporation, condensation, precipitation, groundwater, runoff. **Pollution** - Physical contamination, especially the harming of the environment by harmful substances, or by levels of noise and light.	Know the main events in the **water cycle**. Know the different types of **flooding**. Know how to change a **solid** into a **liquid**. Know how to turn a liquid into a gas. Know the temperatures at which water **freezes** and **boils**. Know some different types of clouds. Know that the water cycle keeps going. Know some of the causes of water **pollution**. Know some ways to reduce water pollution.			Understand the causes and effects of water pollution. Understand that changes in temperature cause evaporation and condensation. Understand that water has to be cleaned for drinking. Understand how flooding affects communities. Understand why the water cycle is a closed cycle. Understand some of the ways water pollution affects plants and animals. Understand the effect of water pollution on drinking water.		Describe water in its solid, liquid and gaseous state. Describe how water changes by explaining the three states of matter. Explain the key aspects of the water cycle. Explain how clouds and rain are formed and why it rains. Explain where the processes of evaporation and condensation are involved in the water cycle. Explain why the water cycle is a closed cycle. Explain how and why drinking water is cleaned. Explain the causes and effects of flooding. Name ways to limit flood damage. Suggest ways to remove dirt from water.		

Useful Information

States of Matter:





Orton Wistow Primary School – Curriculum Plan

Subject : Geography	Year : 4	Term : Summer

			
Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do

Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
Prime Meridian - An imaginary line which divides the Earth into the eastern and western hemispheres. **Hemisphere** - A half of the earth, usually divided by the equator into the northern and southern hemisphere. **Greenwich Mean Time (GMT)** - All time zones start here. **Longitude and latitude** - See Useful Information. **Polar** - The area around the North or South Pole.	Know where the North and South Poles are on a globe or map. Know where the Arctic Circle and Antarctic Circle are on a globe or map. Know where the lines of **latitude** and **longitude** on a map. Know the location of the Tropics of Cancer and Capricorn. Know the location of the **Prime Meridian**. Know some countries on the Equator.			Understand how to find the local time in another city using time differences. Understand the position and significance of the Prime Meridian. Understand how to locate a place on a map when the latitude and longitude are provided.			Locate the Equator, Northern and Southern **Hemisphere** on a map and globe. Identify differences between the UK and the tropics. Use longitude and latitude to find places on maps, atlases and globes. Describe the key features of the **polar** regions. Compare daylight hours in the UK and polar regions. Compare the climate of the tropics with the UK climate. Explain the position and significance of time zones.		

Useful Information

Lines of Longitude and Latitude:

Longitude and Latitude
Latitude lines run around the earth east to west. These lines are the same distance apart from each other.
Longitude lines run over the top of the earth north to south. These lines are not equally distant from each other.
These lines are used to give the specific location of anywhere in the world using co-ordinates.

World Map: