

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Stones and bones	All creatures great and small	Iron giants!	Food, glorious food	Extreme Earth	Who let the Gods out?
<p>Light</p> <p>The children will:</p> <ul style="list-style-type: none"> • recognise that they need light in order to see things and that dark is the absence of light • notice that light is reflected from surfaces • recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light source is blocked by an opaque object • find patterns in the way that the size of shadows change. <p>Percy Shaw - Inventor of the cat's eye</p>	<p>Animals, including humans</p> <p>The children will:</p> <ul style="list-style-type: none"> • identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • identify that humans and some other animals have skeletons and muscles for support, protection and movement. <p>Wilhelm Roentgen - Physicist who discovered x-rays</p>	<p>Forces and magnets</p> <p>The children will:</p> <ul style="list-style-type: none"> • notice that some forces need contact between two objects, but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials • describe magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing. <p>William Gilbert - Doctor who developed the theory of magnetism</p>	<p>Plants</p> <p>The children will:</p> <ul style="list-style-type: none"> • identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant • investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. <p>Dr Kelsey Byers - Biologist who studies flower smells and how they attract insects</p> <p>Science week: producing a poster / presentation about:</p> <p>Yakama: Jeanne Baret</p> <p>Micmac: Mary Anning</p>	<p>Rocks</p> <p>The children will:</p> <ul style="list-style-type: none"> • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things that have lived are trapped within rock • recognise that soils are made from rocks and organic matter <p>Florence Bascom - Geologist who studied the origin and formation of mountains</p>	<p>Forces and magnets</p> <p>The children will:</p> <ul style="list-style-type: none"> • compare how things move on different surfaces <p>Leonardo Da Vinci - First person to plan and carry out tests on friction</p>
<p>Plants</p> <p>The children will:</p> <ul style="list-style-type: none"> • explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant 					

- explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Observing plant growth throughout the year

Pupils will be taught to use the following skills when carrying out investigations:

- Asks relevant questions and uses past knowledge when considering new investigation
- Can set up simple practical enquiries and understand a fair test.
- Can understand that changing only one variable is the best method for testing.
- Can make careful observations using notes and simple tables and drawing.
- In drawing can consider scale and detail.
- Can take accurate measurements using standard units of length, time and heat. Use mm and cm. Use negative numbers.
- Label diagrams neatly, use keys, bar charts, and simple tables. Use headings to clarify what information is being collected.
- Draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- Use scientific evidence to answer questions or to support their findings relate the results to scientific knowledge
- Use independent research including secondary sources to help them to answer questions
- Know how to use a microscope, magnifying lens, thermometer.