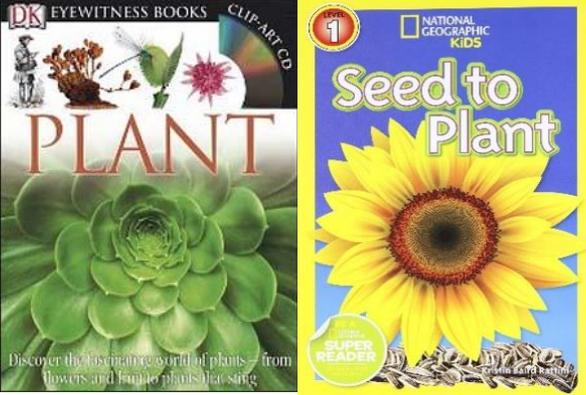
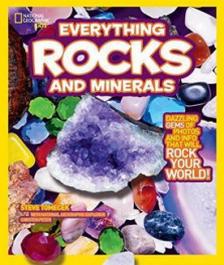
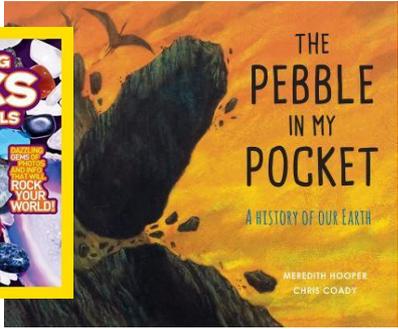


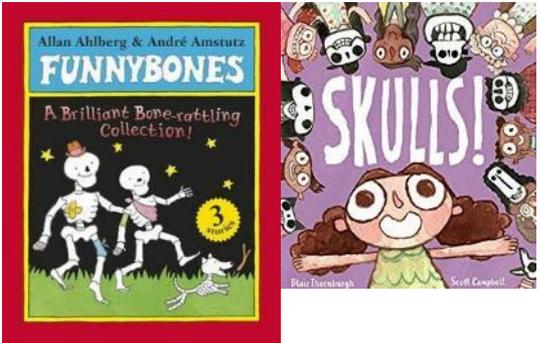
# Year 3: Plants

Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about our plant topic
<b>sepal</b>	Help to protect the flower in bud		<input type="checkbox"/> Sun strikes the chloroplasts and combines with carbon dioxide that plants get from their leaves, and water that plants get through their roots, to produce sugar, or glucose
<b>petal</b>	Attract insects with colour, scent and nectar		<input type="checkbox"/> The outside of a flower that can be seen easily consists of petals, the colored part of the flower, and the sepals, the small green structures that look like little petals at the base of the flower.
<b>Nutrients</b>	A substance that provides nourishment essential for the maintenance of life and for growth	<b>Important facts to know by the end of the Plants topic:</b> <ul style="list-style-type: none"> <li>○ Some facts about flowers are that flowers get their food from sunlight, water, and minerals in the soil.</li> <li>○ Flowers are the reproductive parts of a plant.</li> <li>○ Plants make their own food by photosynthesis.</li> <li>○ Without sunlight and water, plants will die.</li> <li>○ Plants take in carbon dioxide, or CO<sup>2</sup>, through little holes in their leaves, which are called stomata.</li> <li>○ They then produce and release oxygen through the stomata.</li> <li>○ Plants and animals were meant to live together!</li> <li>○ Animals need the oxygen that plants put out, and plants need the carbon dioxide that animals put out.</li> <li>○ The pollen is usually a bright yellow or orange color.</li> </ul>	<input type="checkbox"/> Flowers did not always exist; they first appeared 140 million years ago. Before that, ferns and cone bearing trees dominated the earth.
<b>stigma</b>	Receives pollen during pollination		<input type="checkbox"/> Inside a flower is the pistil, or the female parts of the flower. The pistil looks like a vase with a long neck. The top of this "vase" is called the stigma. The long neck is called the style. The bottom, fatter part of the vase is the ovary and contains the ovules.
<b>Ovary</b>	contains undeveloped seeds (ovules) which, if fertilised following pollination, develop into seeds.		<input type="checkbox"/> Inside the flower are the male parts of the flower, called the stamens. The stamen consists of the anther and the filament. The filament looks like a stiff, standing piece of string. On top of the filament is a rounded ball of pollen called the anther.
<b>Pollination</b>	The transfer of pollen to a stigma, ovule, flower, or plant to allow fertilization.		<input type="checkbox"/> Pollinators like bees, animals, and birds come and gather pollen from the flowers. The pollen sticks to their bodies. When they go to visit another flower to gather more pollen, the pollen from the previous flower drops into the pistil of the new flower, fertilizes the eggs inside the ovary, and seeds are made.
<b>Fertilization</b>	When a plant makes seeds to create new plants.		
<b>Germination</b>	The development of a plant from a seed or spore.		
<b>Photosynthesis</b>	The process by which green plants and some other organisms use sunlight to synthesize nutrients from carbon dioxide and water.		
<b>Stamens</b>	Makes pollen and holds it in position.		

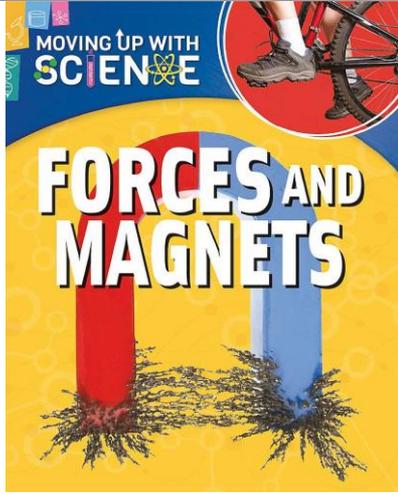
# Year 3: Rocks

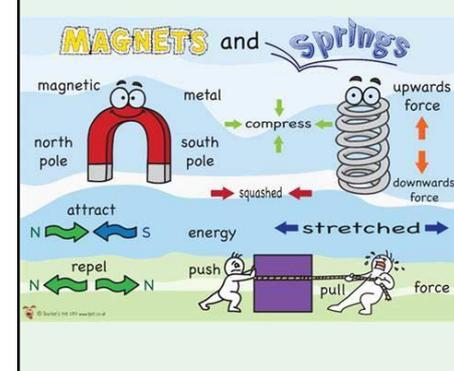
Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about rocks
<b>Sedimentary</b>	Where small particles of rock are carried by wind or water and fall in another place. They layer on top of the earth and over time it makes a striped look. This takes millions of years.	 	Geologists are scientists that study rocks.
<b>Metamorphic</b>	This is when a rock is given lots of heat and the heat makes it change its shape by melting and makes it become liquid and harden in a different form.		To geologists, a rock is a natural substance composed of solid crystals of different minerals that have been fused together into a solid lump.
<b>igneous</b>	Igneous rock is made through the cooling and solidifying of magma or lava.	<p><b>Important facts to know by the end of the rocks topic:</b></p> <ul style="list-style-type: none"> <li>• <b>Rocks have been used throughout history as weapons and tools of survival.</b></li> <li>• <b>There are about 3,000 known minerals on the Earth.</b></li> <li>• <b>Diamond is the hardest natural substance on Earth, and a diamond is used to cut another diamond.</b></li> <li>• <b>Quartz is one of the most common minerals found on Earth, and basalt is the most common rock.</b></li> <li>• <b>There are three basic types of rock: igneous, sedimentary, and metamorphic.</b></li> <li>• <b>Rocks are everywhere.</b></li> </ul>	Extremely common in the Earth's crust, igneous rocks are volcanic and form from molten material. They include not only lava spewed from volcanoes, but also rocks like granite, which are formed by magma that solidifies far underground.
<b>Permeable</b>	This is when a liquid or a gas can go through an object.		The seafloor is formed of a dark lava called basalt, the most common volcanic rock.
<b>Impermeable</b>	This is when a liquid or a gas can not go through an object.		Rocks are formed over millions of years. It is a slow and steady process.
<b>Heat</b>	Heat is when there is extreme warmth that can melt rocks and change forms of things with this heat.		Fossils are most frequently found in sedimentary rock, which comes in layers, called strata.
<b>Pressure</b>	Pressure is a force that can be from two objects pushing together or from an invisible force that can crush, mould, move and reshape objects.		
<b>transportation</b>	When something is moved from one place to another.		
<b>Deposition</b>	When an object settles somewhere after being transported.		
<b>Melt</b>	Turning someone to liquid by extreme heat.		
<b>Solidify</b>	After being melted, the object becomes solid again.		

# Year 3: Animals including Humans

Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about our skeleton and muscles
<b>nutrition</b>	Nutrition involves drinking enough water and eating the right amount of items from the four main food groups.		<input type="checkbox"/> The spine is made up of 33 bones and the smallest bone is found in our ear.
<b>skeleton</b>	The human skeleton is made of bone and grows as we grow. Our skull protects our brain and our ribs protect our heart and lungs.		<input type="checkbox"/> Muscles make up 40% of our total body weight and the smallest muscle is found in our ears.
<b>muscles</b>	Muscles are attached to bones by tendons and help them to move. When a muscle contracts it gets shorter and pulls on the bone it is attached to.		<input type="checkbox"/> When we are born we have about 300 bones in our body by the time we are adults we have 206 because some bones have fused together.
<b>diet</b>	Our bodies need a balanced diet to work properly. This involves drinking enough water and eating healthily.		<input type="checkbox"/> When broken our bones will repair themselves. Doctors use casts or splits to make sure they grow back straight.
<b>joint</b>	Joints allow the body to make movements. The body has many bones and are connected through the joints.		<input type="checkbox"/> The longest bone in the human body is the thigh bone called the femur.
<b>pelvis</b>	The pelvis is a bony cradle-shaped structure located at the base of the spine.		<input type="checkbox"/> Bone marrow makes up 4% of a human body mass. It produces red blood cells which carry oxygen all over the body.
<b>cartilage</b>	Cartilage is a connective tissue found in many areas of the body including: Joints between bones e.g. the elbows, knees and ankle		
<b>rib cage</b>	It is made up of curved bones. The rib cage is found in the chest area. It protects a persons internal organs from damage.		
<b>tendon</b>	Muscles are attached to the bone by tendons and work in pairs to allow for smooth movement.		
<b>spine</b>	Also known as your backbone, your spine is a strong, flexible column of ring-like bones that runs from your skull to your pelvis.		
		<b>Important facts to know by the end of the animals including humans topic.</b> <ul style="list-style-type: none"> <li>• <b>That humans cannot make their own food. They get their nutrition from what they eat.</b></li> <li>• <b>That humans have skeletons and muscles for support, protection and movement.</b></li> <li>• <b>Know that the body parts have special functions.</b></li> <li>• <b>Know the names of the body parts associated with skeleton and muscles.</b></li> <li>• <b>Compare the diets of different groups of animals, including humans.</b></li> <li>• <b>Know what a healthy meal looks like.</b></li> </ul>	

# Year 3: Forces and Magnets Knowledge Mat

Subject Specific Vocabulary		Interesting Book	Sticky Knowledge about our rocks and magnets
<b>Force</b>	An invisible strength that can push, pull or move objects or living things.		<input type="checkbox"/> The Earth is a very big magnet. Its North and South poles are highly magnetic.
<b>Magnet</b>	A force that is attracted or repelled by a metal force. A magnet is made up of North and south poles.		<input type="checkbox"/> A magnet always has north and south poles. Cutting a magnet in half makes two magnets, each with two poles
<b>Bar magnet</b>	A magnet in the shape of a bar.		<input type="checkbox"/> Magnets only attract certain types of metals, other materials such as glass, plastic and wood aren't attracted.
<b>Horseshoe magnet</b>	A magnet in a semi-circle shape.		<input type="checkbox"/> Magnets and forces are all around us even if we cannot feel them.
<b>Attract</b>	Where the forces or magnet pulls the object towards it.		
<b>repel</b>	Where the forces or magnet pushes the object away from them.		
<b>Magnetic object</b>	An object made out of some kind of metal that can be attracted or repelled by a magnet. Not all metal is repelled or attracted to a magnet.	<b>Important facts to know by the end of the forces and magnets topic:</b> <ul style="list-style-type: none"> <li>• Know that magnets are all around us</li> <li>• Know what makes an object magnetic</li> <li>• To class objects based on their magnetic properties</li> <li>• Know that a magnetic force is powerful</li> <li>• Know that there are forces that work with us at all times</li> <li>• That gravity of a force and that even if we cannot feel them, the forces are there.</li> </ul>	
<b>Gravity</b>	The force that is invisible and cannot be felt, but that keeps up on the planet. Space has no gravity, which is why astronauts can float around in space.		
<b>Magnetic field</b>	A magnetic field is the area around the magnet where it can attract or repel things. When you bring two magnets together they will either attract or repel.		



# Year 3: Light

Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about light and dark
<b>reflection</b>	It occurs when a ray of light hits a surface and bounces off.		<input type="checkbox"/> Black and dark objects absorb light and heat whilst white or light objects reflects it.
<b>shadows</b>	A shadow is formed when an object blocks out the light. The object must be opaque or translucent to make a shadow.		<input type="checkbox"/> Some objects like glass are transparent which means that light can shine through them.
<b>light source</b>	The main light source for Earth is the Sun. Some other luminous objects give out light, for example, torches, candles and lamps.		<input type="checkbox"/> Our main source of light on Earth comes from the Sun. A ray of light travels very fast.
<b>opaque</b>	Opaque objects do not allow light to pass through them. In most cases creating a shadow.		<input type="checkbox"/> Darkness is made by blocking light from the sun or some other source of light, which makes shadows
<b>refraction</b>	It is the change of direction of a light ray as it passes through different surfaces, for example, from air to water.		<b>Important facts to know by the end of the light topic:</b> <ul style="list-style-type: none"> <li>• <b>What dark is (in relation to absence of light).</b></li> <li>• <b>Know that we need light so we can see things.</b></li> <li>• <b>Know that light can be reflected.</b></li> <li>• <b>Know how a shadow is formed.</b></li> <li>• <b>Understand why shadows change shape.</b></li> <li>• <b>Know the dangers of looking directly at the Sun.</b></li> <li>• <b>Know how to protect oneself from direct sunlight.</b></li> </ul>
<b>periscope</b>	A periscope is an instrument people use to look at things from a hidden position.		
<b>nocturnal</b>	If something is nocturnal, it belongs to or is active at night. For example, bats and owls		<input type="checkbox"/> A mirror is not a source of light it merely reflects light. Similarly, the Moon is not a source of light it reflects the light from the Sun.
<b>Transparent</b>	Light passes through some materials and not others.		<input type="checkbox"/> Some animals are nocturnal. They are awake at night and can see very well in the dark. Our eyes aren't designed to see in the night.
<b>Translucent</b>	Light passes through transparent materials (objects are not 'see through' – light passes through the material).		
<b>bounce</b>	The light that is reflected from one surface onto another. Light can jump from one surface to another.		