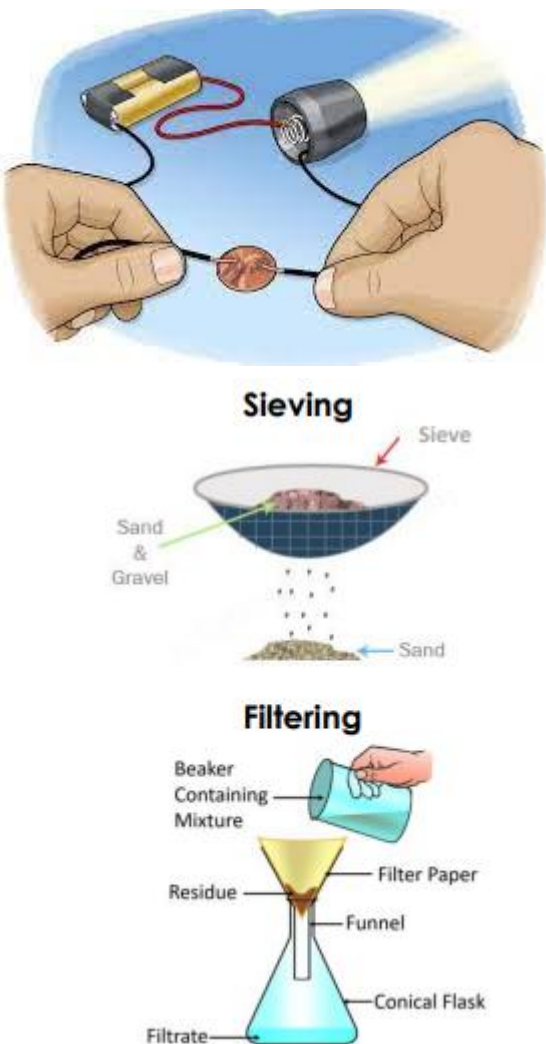



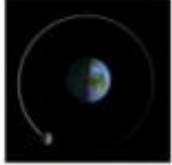

Year 5: Science Knowledge Mat - Forces

Key Vocabulary		Images	Core Knowledge
Friction	The force between two surfaces causing drag		<p>I know what gravity is and its impact on our lives</p> <ul style="list-style-type: none"> - I can identify and know the effect of air and water resistance - I can identify and know the effect of friction
Air resistance	The effect of the force of friction between gas and an object		<p>- I can explain how levers, pulleys and gears allow a smaller force to have a greater effect</p> <p>- I can explain how parachutes work?</p>
Gravity	The force pulling objects towards the centre of a larger body		<p>I can create parachutes, changing a variable to try to isolate what is needed for an effective parachute (e.g. changing parachute material, size, shape, etc)</p>
Fulcrum	The pivot in a lever		<p>I can identify which boat shape will be most efficient? (water resistance)</p>
Load	The mass being moved by a lever		
Water resistance	The effect of the force of friction between a liquid and an object		
Newton	A unit of measure of force, named after the scientist who is attributed to 'discovering' Gravity		
Mass	The amount of material or matter in an object		
Weight	A measure of how much gravity affects the mass of an object		
Streamlined	having a form that presents very little resistance to a flow of air or water		
Force	A push, pull or twist		
Buoyancy	The upward force exerted on an object in a liquid		

Year 5: Science Knowledge Mat - Changing Materials

Key Vocabulary		Images	Core Knowledge
Solubility	Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.		<ul style="list-style-type: none"> <input type="checkbox"/> I know what reversible and irreversible changes are and give examples of them. <input type="checkbox"/> I can produce my own hardness scale and link the hardness of materials to their use <input type="checkbox"/> I can classify materials as transparent, translucent or opaque. <input type="checkbox"/> I know the terms conductor and insulator and state which types of material make the best ones. <input type="checkbox"/> I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. <input type="checkbox"/> I know some of the signs that tell a chemical reaction has occurred. <input type="checkbox"/> I can classify substances as acids, alkalis or neutral' <input type="checkbox"/> I can separate mixtures through filtering, sieving and evaporating. <input type="checkbox"/> I know how to record data using a table to present my results. <input type="checkbox"/> I know how to take measurements, using a range of scientific equipment. <input type="checkbox"/> I know how to begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary <input type="checkbox"/> I know how to use scientific diagrams and labels to record data and support my conclusion.
conductivity	a material's ability to conduct electricity		
transparency	transparency is the quality of being easily seen through		
durable	able to withstand wear, pressure, or damage; hard-wearing.		
dissolve	to become broken up or absorbed by something or to disappear into something else		
separate	To divide a mixture into two or more distinct substances		
thermal	Something that is thermal is hot, retains heat, or has a warming effect.		
filtering	to pass it through a device which is designed to remove certain particles contained in it		
insulate	To prevent the loss of heat or sound		
evaporate	To turn from a liquid into a vapour		

Year 5: Science Knowledge Mat - Earth & Space

Key Vocabulary		Images	Core Knowledge
Earth	The planet we live on. It is the third planet from the Sun.	 <p>The Sun, Earth and Moon are approximately spherical.</p> <p>The Earth orbits the Sun.</p> <p>The Moon orbits Earth.</p>  <p>The moon orbits the Earth. It takes about 28 days to complete its orbit.</p>  <p>The phases of the moon are caused by its orbit around the Earth. As the moon orbits the Earth, we can see a different amount of the moon is lit by the sun from Earth.</p>	<input type="checkbox"/> I know the movement of the Earth, and other planets, relative to the Sun in the solar system.
Sun	The Sun is the star at the centre of our solar system.		<input type="checkbox"/> I know the movement of the Moon relative to the Earth.
Moon	The moon is the only natural satellite of the Earth		<input type="checkbox"/> I know the Sun, Earth and Moon have approximately spherical bodies.
planets	Large, spherical objects, made of rock or gas, that move around the sun.		<input type="checkbox"/> I can use the idea of the Earth's rotation to explain day and night.
solar system	The sun and all the planets that orbit around it.		<input type="checkbox"/> I can explain the apparent movement of the sun across the sky.
star	A large ball of burning gas in space.		
rotates	Turn on an axis		
orbit	The curved path that an object follows when it travels around a star or planet		
galaxy	An extremely large group of stars and planets. Our galaxy is called the Milky Way.		
universe	The whole of space and all the stars, planets, and other forms of matter and energy in it		

Year 5: Science Knowledge Mat – Humans Including Animals

Key Vocabulary		Images	Core Knowledge
Fertilisation	The process of male and female cells fusing together		<ul style="list-style-type: none"> ➤ I know the different stages of the human life cycle: baby, toddler, child, teen, adult, geriatric. ➤ I know what gestation is and that it differs depending on the species. ➤ I know that a fetus grows and changes as it develops. ➤ I know that there are features of childhood that are the same for all children, but that there are also differences. For example: All children do not have the same size feet ➤ I know that eyesight and muscle strength diminishes as humans become old. ➤ I know the phases of human development and can describe the changes that occur. ➤ I know whether questions can be answered by testing or by research. ➤ I know how to identify patterns in my data and decide how to record it in a chart. ➤ I know how to take accurate measurements using weighing scales and understand why I need to repeat my measurements. ➤ I know whether my research has answered my question.
Prenatal	The development from fertilisation up to birth		
Gestation	The time when prenatal development takes place before birth		
Reproduce	To produce young		
Species	A group of similar organisms that are able to reproduce.		
Fetus	A fetus is the stage that an organism goes through before it is born as a baby		
Life cycle	The changes a living thing goes through, including reproduction		
Adolescence	The stage of development between childhood and adulthood		
Puberty	The physical stage of development between childhood and adulthood		
Hormone	Hormones are special chemicals your body makes to help it do certain things – like grow up.		
Adulthood	Fully grown and mature		
Life expectancy	The length of time, on average, a living thing is meant to live		