

# Moor House School & College Curriculum Map

SUBJECT: Science			
YEAR GROUP: Year 8			
Autumn 1	Biology – Life Processes and Living Things		Biology – Life Processes and Living Things
Knowledge	Core: Keep Healthy		Core: Defence Against Infectious Disease
Knowledge & Skills	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What energy balance is</li> <li>- What metabolic rate is</li> <li>- What things affect metabolic rate</li> <li>- How someone might lose weight</li> <li>- What cholesterol is</li> <li>- What heart disease it</li> </ul>		Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- How out bodies defend against infectious disease</li> <li>- What makes people feel ill</li> <li>- The different types of pathogens</li> <li>- Who Semmelweis is</li> <li>- How the body fights disease from inside and outside the body</li> <li>- What an immune system is</li> <li>- The function of white blood cells</li> </ul>
Vocabulary	Food Groups Nutrition	Metabolism Diet Weight	Bacteria Virus White Blood Cells
			Pathogens Defend Illness
			Reproduce Life Cycle Infant Toddler
			Adolescent Puberty Hormones
Autumn 2	Biology – Life Processes and Living Things		
Knowledge	Core: Cells		
Knowledge & Skills	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What makes up a living thing</li> <li>- Why we use magnifying glass to look at small objects</li> <li>- The difference between animal and plants cells</li> <li>- The different parts of animal and plant cells</li> <li>- The functions of the different parts of a animal and plant cell</li> </ul>		

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Vocabulary	Cell Animal Cell Plant Cell Function Living thing Organism	Cell wall Cell membrane Cytoplasm Nucleus Vacuole Chloroplast		
<b>Spring 1</b>	<b>Chemistry – Physical Processes</b>		<b>Chemistry – Physical Processes</b>	
Knowledge	Core – Grouping and Classifying Material		Core – Electricity	
Knowledge & Skills	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What objects are made of</li> <li>- How to sort objects based on their properties</li> <li>- How to identify common materials in a variety of places</li> <li>- What properties makes something a suitable material or an unsuitable material for an object</li> </ul>		Core – Students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What electricity is</li> <li>- The difference between conductors and insulators</li> <li>- Examples of materials that are conductors and insulators</li> <li>- Heat and its connection to conduction and insulation</li> <li>- To learn the affect of air on insulation</li> <li>- How to measure temperature</li> </ul>	
Vocabulary	Sort Materials	Properties	Electricity Conductors Temperature	Circuit Insulators
			Solid Liquid	Gas Natural Materials

<b>Spring 2</b>	<b>Chemistry – Physical Processes</b>		<b>Chemistry – Physical Processes</b>	
Knowledge	Core: Separating Materials		Core: Solutions	
Knowledge & Skills	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- Natural materials</li> </ul>		Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What a solution is</li> </ul>	
			Core: Solubility	
			Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- The difference between a saturated solution and an unsaturated solution</li> </ul>	

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	<ul style="list-style-type: none"> <li>- Water can pass through certain materials at different rates</li> <li>- How sieving works</li> <li>- How something can dissolve</li> <li>- Factors that affect how something will dissolve</li> <li>- How filtration works</li> </ul>	<ul style="list-style-type: none"> <li>- How something might evaporate and condense based on what is in the solution</li> </ul>	<ul style="list-style-type: none"> <li>- How to separate materials in a saturated solution</li> </ul>
Vocabulary	Sieving                      Separate Dissolving                  Filtering Evaporate	Evaporate                      Condensation Solution	Insoluble                      Solution Soluble                          Saturated Solution
<b>Summer 1</b>	<b>Physics - Physical Processes</b>	<b>Physics - Physical Processes</b>	
Knowledge	Core: Light	Core: Parts of the Eye	
Knowledge & Skills	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- What a light source is</li> <li>- An example of different light sources</li> <li>- Primary and secondary light sources</li> <li>- How shadows are made</li> <li>- Light travelling in a straight line</li> </ul>	Core – students will demonstrate understanding of <ul style="list-style-type: none"> <li>- How we see things</li> <li>- What reflection</li> <li>- What materials better reflect light</li> <li>- How our eyes receive light</li> <li>- The different parts of the eye and what they do</li> </ul>	
Vocabulary	Light                              Secondary Light Source Light Source                  Shadow Primary Light Source      Light Travel	Eye                                  Iris Optical Illusion              Cornea Reflection                      Lens Retina                              Macula Optic Nerve	
<b>Summer 2</b>	<b>Physics - Physical Processes</b>		
Knowledge	Core: The pH Scale		

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<p>Knowledge &amp; Skills</p>	<p>Core – students will demonstrate understanding of</p> <ul style="list-style-type: none"> <li>- What the pH scale is</li> <li>- What colours relate to the acids and alkali's</li> <li>- What number relates to acids and alkali's</li> <li>- Which sections on the pH scale are corrosive</li> <li>- What happens when you mix acid and alkalis' together</li> <li>- What neutralisation means</li> <li>- How to use an indicator</li> <li>- How the pH in our stomachs affect indigestion</li> </ul>		
<p>Vocabulary</p>	<p>pH Scale Acid Alkali Neutral</p>	<p>Indicator Indigestion</p>	