

Subject Area: Science Subject Leader: AJM

## <u>Year 7</u>

Term	Topics/ Content Overview	Key concepts/ core knowledge/ key vocabulary	Assessments/ checkpoints (where relevant)	Careers' Links
Autumn Term 1	Working Scientifically	<ul> <li>Scientific Apparatus</li> <li>Lab Safety</li> <li>Readings &amp;</li> <li>Measurements</li> <li>Investigations</li> <li>Analysing Results</li> </ul>	HT1 Assessment on topics 1-2 Effort Tracking deadline 7 <sup>th</sup> October	
	2. Matter	<ul> <li>Particle Model</li> <li>Atoms &amp; Elements</li> <li>Heating &amp; Cooling</li> <li>Diffusion</li> <li>Gas Pressure</li> <li>Mixtures &amp; Compounds</li> </ul>		
Autumn Term 2	3. Forces  4. Intro to Biology	<ul> <li>Types of Forces</li> <li>Effects of Forces</li> <li>Resultant Forces</li> <li>Contact &amp; Non-Contact Forces</li> <li>Bending &amp; Stretching</li> <li>What is Biology</li> <li>Biodiversity</li> <li>Adaptations</li> <li>Size and Scale</li> <li>Unicellular &amp; Multicellular Organisms</li> </ul>	Term 1 Test on all topics 1-4	



	5. Chemical Reactions	<ul> <li>Chemical Reactions &amp;</li> <li>Physics Changes</li> <li>Combustion</li> <li>Decomposition</li> <li>Displacement</li> <li>Catalysts</li> </ul>		
Spring Term 1	6. Energy	<ul> <li>Energy Stores</li> <li>Energy Transfers</li> <li>Work Done</li> <li>Energy in Stretched</li> <li>Objects</li> </ul>	Term 2 Test on all topics 1-7  Effort and Progress Tracking deadline Friday 10 <sup>th</sup> February	
	7. Microscopes, Cells, Respiration & Diffusion	<ul> <li>Using Microscopes</li> <li>Magnification</li> <li>Plant &amp; Animal Cells</li> <li>Function of Organelles</li> <li>Respiration</li> <li>Diffusion</li> <li>Specialised Cells</li> </ul>		
Spring Term 2	8. Reproductive System, Growth & Life Cycles	<ul> <li>Reproductive Organs</li> <li>Fertilisation</li> <li>The Menstrual Cycle</li> <li>Gestation &amp; Birth</li> <li>Effects of Smoking, Alcohol &amp; Diet</li> <li>Puberty</li> </ul>		
	9. Pressure	<ul><li>Pressure Calculations</li><li>Pressure Aplications</li></ul>		
Summer Term 1	10. Separating Mixtures	<ul><li>Separating Mixtures</li><li>Dissolving</li><li>Distillation</li><li>Chromatography</li></ul>	Term 3 Test on all topics 1-10  Effort and Progress Tracking deadline Friday 5 <sup>th</sup> May	
	11. Nutrition & Digestion	<ul><li>Healthy Diet</li><li>Energy Requirements</li></ul>	Parents' Evening Thursday 18 <sup>th</sup> May	



		- Deficiency Diseases - Digestion - Absorption of Nutrients
Summer Term 2	12. Photosynthesis, Food Webs & Interdependence 13. Earth & the Universe	- Photosynthesis Reaction - Photosynthesis Reactants - Leaf Adaptations - Earth's Atmosphere - Biomass - Food Webs - Interdependence