

**Levenshulme High School – Curriculum Map – Science**

		Term 1		Term 2		Term 3	
No. of Weeks		8	7	6	6	5	7
<b>Year 7</b>	<b>Topic Title and NC link</b>	<b>7E Acids, Alkalis &amp; 7F Chemical reactions.</b>	<b>7A Cells, Tissues and Organs &amp; 7B Reproduction</b>	<b>7G What a waste &amp; 8E Water</b>	<b>7I&amp;J Energy and electrical circuits</b>	<b>7C Ecology</b>	<b>7L Space</b>
	<b>Big Ideas</b>	<b>All matter is made of particles.</b>	<b>Organisms are organised on a cellular basis and have a finite life span.</b>	<b>All matter is made of particles.</b>	<b>The total amount of energy in the Universe is always the same but can be transferred from one energy store to another.</b>	<b>Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms.</b>	<b>Our solar system is a very small part of one of billions of galaxies in the Universe.</b>
	<i>Pupils should know...</i>	This unit introduces acids and alkalis. Students learn what they are, why they can be dangerous and how to test their strength. Students move on to learn about chemical reactions and physical changes.	This unit is all about our organ systems and what they are made up of. Students learn about animal and plant cells, the sub-cellular structures inside cells and specialised cells. Students move on to learn about the human reproductive organs, pregnancy, birth, puberty and the menstrual cycle.	In this unit students will learn about how different materials behave and how their understanding of particles helps to explain the behaviour of solids, liquids and gases. They will also learn about different separating techniques and pure and impure substances	This unit uses sustainable living to introduce the idea that stores of energy are needed to make most things happen, and that burning fossil fuels to transfer energy is contributing to global warming. Students also learn about electrical circuits.	This unit looks at the work ecologists do in advising the building industry. Students learn about habitats, adaptations and feeding relationships.	In this unit students will learn about the Earth's place in our solar system, why we have seasons and how we explore space.
	<i>Pupils should be able to do...</i>	<ul style="list-style-type: none"> <li>Describe how to identify acids and alkalis.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the similarities and differences between cells</li> </ul>	<ul style="list-style-type: none"> <li>Draw the particle model for the three</li> </ul>	<ul style="list-style-type: none"> <li>Name the different energy stores.</li> </ul>	<ul style="list-style-type: none"> <li>Describe some environments of habitats</li> </ul>	<ul style="list-style-type: none"> <li>Describe what a day, month and year is.</li> </ul>

		<ul style="list-style-type: none"> <li>• Explain how to stay safe while doing an experiment.</li> <li>• Describe physical and chemical changes.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a microscope to view slides</li> <li>• Describe how fertilisation happens</li> </ul>	<p>states of matter.</p> <ul style="list-style-type: none"> <li>• Describe diffusion in terms of particle movement.</li> <li>• Explain how distillation produces pure water</li> </ul>	<ul style="list-style-type: none"> <li>• Describe renewable and non-renewable energies.</li> <li>• Describe electrical circuits.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe food chains in terms of producers, predator etc.</li> <li>• Explain how adaptations help organisms to survive.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why we have summer and winter.</li> <li>• Compare methods of how we explore space</li> </ul>
<i>Pupils should have remembered...</i>	From KS2- categorise substances as solids, liquids and gases.	From KS2 – describe the changes as humans develop to old age.	From KS2- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	From KS2 make simple series circuits and name some of the components of a circuit.	From KS2- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	From KS2- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system	