

Rainford High School – Department: Science

	Year 7 Curriculum		
Term	Term 1	Term 2	Term 3
Topics	Biology: Cells & Organisation Chemistry: States of Matter Physics: Forces & Motion	Biology: Diet, Digestion & Health Chemistry: Chemical Reactions Physics: Electricity & Magnetism	Biology: Reproduction Chemistry: Materials Physics: Space
Essential knowledge, skills and understanding	<p><u>Biology</u></p> <ul style="list-style-type: none"> • Scientific diagrams • Microscopes • Animal cells • Plant cells • Specialised Cells • Diffusion • Organisation • Skeletal System • Muscles • Biomechanics <p><u>Chemistry</u></p> <ul style="list-style-type: none"> • Hazards • Solids, liquids and gases • Changing states • Energy changes • Gas pressure • Diffusion • Pure mixtures and solutions • Filtration and evaporation • Distillation • Chromatography <p><u>Physics</u></p> <ul style="list-style-type: none"> • Hypothesis 	<p><u>Biology</u></p> <ul style="list-style-type: none"> • Variables • Balanced Diet • Food tests • Energy in food • Digestive system • Absorption • Enzymes • Malnutrition <p><u>Chemistry</u></p> <ul style="list-style-type: none"> • Writing word equations • Chemical reactions • Chemical and physical changes • Combustion • Thermal decomposition • Exothermic and endothermic reactions • Energy level diagrams <p><u>Physics</u></p> <ul style="list-style-type: none"> • Atoms 	<p><u>Biology</u></p> <ul style="list-style-type: none"> • Types of graph • Male & female reproductive organs • Fertilisation • Puberty • Menstrual cycle • Pregnancy & birth • Flower structure • Pollination • Seed dispersal <p><u>Chemistry</u></p> <ul style="list-style-type: none"> • Types of data • Metals & Acid • Reactivity series • Displacement reactions • Carbon in the reactivity series • Metals & Recycling • Ceramics & composites • Polymers • Nanoparticles <p><u>Physics</u></p> <ul style="list-style-type: none"> • Scientific theories

	<ul style="list-style-type: none"> • Forces • Mass & weight • Balancing forces • Friction • Speed • Distance-time graphs • Simple machines • Turning forces 	<ul style="list-style-type: none"> • Static electricity • Conductors and insulators • Circuits • Potential difference and current • Resistance • Magnets and magnetic fields • Electromagnets 	<ul style="list-style-type: none"> • Our solar system • Wider universe • Gravity in space • Earth & seasons • The moon & eclipses • Asteroids • Alien life • Origins & fate of the universe
Assessment	<p>Retrieval testing of knowledge organiser throughout</p> <p>End of topic assessment</p> <p>Summative assessment 1: Cells and organisation and states of matter.</p>	<p>Retrieval testing of knowledge organiser throughout</p> <p>End of topic assessment:</p> <p>ASSESSMENT WINDOW 1 Summative assessment 2: Forces and motion, diet and digestion and chemical reactions</p>	<p>Retrieval testing of knowledge organiser throughout</p> <p>End of topic assessment:</p> <p>ASSESSMENT WINDOW 2 Summative assessment 3: Electricity and magnetism, reproduction, materials and space</p>