Curriculum Map – Science -Year 7

Immanuel College
Church of England Academy

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Key focus	-Introduction -Cells and Organisation	-Particles and mixtures -Forces and Motion	-Reproduction and variation -Acids and alkalis	-Sound and Light Waves	-Infection and Response -Earth and Universe	-Energy -Ecosystems and Pollination
Key knowledge and skills	a) Safety in Science b) Practical Skills c) Investigation Skills d) Animal and plant Cell structure and specialisation e) Microscopy f) Levels of Organisation	a) States of matter and changes in state b) Separation Techniques c) Speed d) Contact and non-contact forces e) Magnetism	a) Continuous and discontinuous variation b) Fertilisation in humans c) Metals and non-metals d) Neutralisation e) pH and indicators	a) How sound and light transfer energy b) Loud and quiet sounds c) Law of reflection and refraction d) How a spectrum is produced from white light	a) Microorganisms and disease b) Immunity and Vaccination c) Earth Structure d) Rock types and the rock cycle e) Stars and galaxies f) Moon phases g) Using models in science	a) Energy stores and transfers b) Generating electricity c) Energy resources d) Understanding food webs e) The importance of insects f) Plant fertilisation and seeds
Key words/ vocabulary	Independent Variable Dependent Variable Control Variable Fair Test Mitochondria Magnification Organ System Specimen	Kinetic Energy Bonds Filtration Chromatography Weight Newton's Laws Resultant Force Contact Non-contact	Gamete Fertilisation Embryo Foetus Acid Alkali pH Indicator Corrosive Reactivity Series	Pitch Frequency Wavelength Vacuum Reflection Spectrum	White Blood Cell Antibody Immunity Vaccine Model Light Year Axis Galaxy Igneous Metamorphic Sedimentary Tectonic Plate Lithosphere	Electron Kinetic Gravitational Potential Dissipated Power Efficiency Fossil Fuels Ecosystem Predator Prey Interdependence Sampling
Assessment method	Assessment Point 1 Paper 1	Assessment Point 1 Paper 2	Assessment Point 2 Paper 1	Assessment Point 2 Paper 2	MCQ's	MCQ's Extended writing
Wider links	Food Technology: Writing recipes and risk assessments	English: Students look at a poem about water in poor countries and look at the charity Water Aid.	P.E.R: Ethical use of new technology Maths – orders of magnitude	Design Technology: Development of wireless headphones/ noise-cancelling spaces Music: Sound and pitch	Food Technology: Food hygiene and food safety. Geography – Geology/Rocks/Geological Activity	Maths: Simple numerical computation and using formulas.

"**Perseverance** produces **character,** and character, **hope**" (Romans 5:4)

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Enrichment opportunities	Faraday v Dalton: Who was the greatest scientist? - BBC Bitesize Working scientifically - KS3 Biology - BBC Bitesize	Solids, liquids and gases - KS3 Physics - BBC Bitesize Electromagnetism and magnetism - KS3 Physics - BBC Bitesize	Living organisms - KS3 Biology - BBC Bitesize How to Neutralize Bee and Wasp Stings (sciencing.com)	BBC Bitesize - Sound and light waves	Health and disease - KS3 Biology - BBC Bitesize	Energy - KS3 Physics - BBC Bitesize
Careers links	Research Scientists Laboratory Technician Biotechnology Medicine Veterinary Science	Forensic Scientist Materials Scientist Engineer Builder Lift engineer	Research in medicine Chemist Laboratory Technician Materials Technician Swimming pool technician	Sound engineer Sonographer Oceanographer Electronic engineer	Nursing Microbiologist Pharmacist Geologist Archaeologist Astronomer Aerospace Engineer	Electrical Engineer Electrician Beekeeper Farmer Forest Management Yorkshire Wildlife Trust

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