

Hartford Church of England High School – Year 7 – Science

Year 7	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
Topic(s)	7A Cells Organs Systems and	7E Mixtures and Separation	7I Energy	7C Muscles and Bones	7B Sexual Reproduction in Animals	7K Forces and 9Ic Speed
Focus	Parts of a Cell Organ Systems Use of microscopes	Mixtures Solubility Methods of separation (Filtering, Evaporation & Chromatography)	Energy stores Fuels Energy resources	Breathing & ventilation Muscles & blood The skeleton & muscles Drugs	Types of reproduction Reproductive organs Pregnancy Puberty & the menstrual cycle	Types of Forces Friction & pressure Balanced or unbalanced forces?
Vocabulary	Organism, Cell, Organ, Tissue, Specimen, Specialised, Organelle, Organ system, Nucleus, Organ, Transplant	Solvent, Solute, Soluble, Insoluble, Saturated, Solubility, Evaporate, Chromatography, Distillation, Condense	Joule, Transfer, Fuel, Conservation, Renewable, Non-renewable, Photosynthesis, Resource, Generate, Energy	Respiration, Ventilation, Gas exchange, Diaphragm, Blood vessel, Haemoglobin, Heart chambers, Skeleton, Cartilage, Ligament,	Gamete, Fertilisation, Testes, Puberty, Ovary, Oviduct, Ejaculation, Implantation, Gestation period, Menstrual cycle,	Air resistance, Balanced/unbalanced, Forces, Compress, Contact forces, Extension, Friction, Lubricant, Pressure, Stretch, Weight,
Assessment	Mid Stakes: Observing Cells under a microscope Extended Writing	Mid Stakes: Cleaning water Extended Writing	Mid Stakes: Advantages and Disadvantages of Energy Resources Extended Writing	Mid Stakes: How do we breathe? Extended Writing	Mid Stakes: The Race to make a baby Extended Writing	Mid Stakes: Skateboard Surfaces Extended Writing
Curriculum Thread	Structure & Function of Living Organisms, Humans & Animals, Plants & The Environment	Matter, The Periodic Table, Chemical Reactions and The Earth & Atmosphere	Energy, Motion & Forces, Waves and Electricity & Magnetism	Structure & Function of Living Organisms, Humans & Animals, Plants & The Environment	Structure & Function of Living Organisms, Humans & Animals, Plants & The Environment	Energy, Motion & Forces, Waves and Electricity & Magnetism

Wider Reading	Kay's Anatomy: A Complete (and Completely Disgusting) Guide to the Human Body by Adam Kay	Fun Science: A Guide to Life, The Universe & Why Science Is So Awesome – Charlie McDonnel	The Magic of Reality by Richard Dawkins	Horrible Science by Nick Arnold and Phil Gates	Women in Science: 50 Fearless Pioneers Who Changed the World – Rachel Ignatofsky	Time Travel for Beginners by John Gribbin
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Year 7	Topic 7	Topic 8	Topic 9	Topic 10	Topic 11	Topic 12
Topic(s)	7F Acids and Alkalis	7J Current Electricity	7G The Particle Model	7L Sound	7H Atoms, Elements and Molecules and	7D Ecosystems
Focus	Hazards Acids & risks Indicators Neutralisation reactions	Making circuits & electrical components Models of electricity Series v parallel circuits	States of matter Properties of solids, liquids & gasses Brownian motion & Diffusion Air pressure	Making sounds waves Detecting sound waves Uses of sound waves	Atoms, compounds & mixtures Properties of metals & non-metals Chemical reactions	Variation & adaptation of animals & plants Changes to the environment Food chains & webs
Vocabulary	Precaution, Irritant, Corrosive, Diluted, pH scale, Indicator, Independent variable, Dependent variable, Neutralisation	Current, Flow, Voltage, Component Series, Parallel, Resistance, Fuse, Charge, Conductor, Energy	Energy, Recycling, Corrosive, Flammable, Hazard, Environment, Prediction, Particles, Brownian motion, Diffusion	Amplitude, Vibration, Frequency, Pitch, Medium, Energy, Particles, Echo, Reflection, Ultrasound	Scatter graph, Variable, Line of best fit, Element, Compound, Molecule, Conductor, Malleable, Brittle, Carbonate, Atom, Thermal, Decomposition	Variation, Continuous, Discontinuous, Variation, Adaptation, Nocturnal, Deciduous, Predator, Prey, food web, Producer,

Assessment	Mid Stakes: Indigestion Remedies Extended Writing	Mid Stakes: How does a torch work Extended Writing	Mid Stakes: Ice cube poster Extended Writing	Mid Stakes: Investigating Hearing with Age Extended Writing	Mid Stakes: The iron and Sulphur reaction Extended Writing	Mid Stakes: Metals in Food Chains Extended Writing
Curriculum Thread	Matter, The Periodic Table, Chemical Reactions and The Earth & Atmosphere	Energy, Motion & Forces, Waves and Electricity & Magnetism	Matter, The Periodic Table, Chemical Reactions and The Earth & Atmosphere	Energy, Motion & Forces, Waves and Electricity & Magnetism	Matter, The Periodic Table, Chemical Reactions and The Earth & Atmosphere	Structure & Function of Living Organisms, Humans & Animals, Plants & The Environment
Wider Reading	A Short History of Nearly Everything – Bill Bryson	The Boy Who Harnessed the Wind – Bryan Mealer and William Kamkwamba	The Blind Watchmaker – Richard Dawkins	Why is Snot Green? The Science Museum	Roald Dahl: George's Marvellous Experiments by Roald Dahl	The Green Planet by Leisa Stewart-Sharpe, Kim Smith (Illustrator)