

## Year 7 Science Curriculum

### **Key:**

**HSW** – How Science Works (investigation Skills)

**A** – Some classes may do this lesson if time. These lessons won't be examined in year 7.

	<b>Subject</b>	<b>Topics</b>
Half Term 1 (Autumn Term)	Intro to Science	Behaviour and Lab Safety
		Lab equipment
		Fire safety and Bunsen burners
		Accurate measurements <b>HSW</b>
		Behaviour and Lab Safety
	Biology - Cells	Life Processes
		Animal Cells
		Plant cells (Eukaryotic cells)
		Introduction to Microscopy
		Microscopy <b>HSW</b>
		Specialised Cells in animals
		Levels of organisation in animals
		Levels of organisation in plants
	Physics - Forces	Naming forces
		Force diagrams and balanced forces
		Resultant Forces
		Mass and Weight
Half Term 2 (Autumn Term)		Friction
		Friction <b>HSW</b>
		Speed
		Speed rearranging
		Distance-time graphs <b>(A)</b>
		Friction
	Physics - Energy	Energy stores
		Energy pathways
		Energy accounts/conservation
		Energy stores
	Chemistry – Particle Model	States of Matter <b>HSW</b>
		Particle Model
		Changing State
		Modelling the particle model
		Application of Particle Model
		Brownian Motion <b>(A)</b>
	Chemistry – Periodic Table	Atoms and Elements and symbols

		Element symbols and Chemical formulas
		Periodic table
		Atomic Structure
		Protons, Electrons and Neutrons
Half Term 3 (Spring Term)	Biology - Reproduction	Reproductive organs - female
		Reproductive organs - male
		Puberty
		The menstrual cycle
		Tampon investigation
		Fertilisation
		Pregnancy
		Impact of lifestyle on pregnancy <b>(A)</b>
	Chemistry – Compounds and mixtures	Chemical vs Physical Changes
		Compounds and Mixtures
		Making compounds <b>HSW</b>
		Naming Compounds
		Writing word equations
Half Term 4 (Spring Term)	Chemistry – Acids and Bases	Intro to Acids and Bases
		Use of indicators <b>HSW</b>
		Neutralisation
		Naming salts
		Neutralisation <b>HSW</b>
	Physics - Electricity	Conductors vs Insulators
		Electric circuits and components
		Current in series
		P.d. in series
		Current and p.d. <b>HSW</b>
	Physics - Magnetism	Magnets and magnetic materials
		Magnetic fields
		Electromagnets and their uses
		Electromagnets <b>(A)</b>
Half Term 5 (Summer Term)	Chemistry – Equations and Reactions	Word and symbol equations
		Balancing Equations theory
		Balancing Equations practice
		Acids and Metals
		Acid and Metals <b>HSW</b>
		Acids and metal carbonates <b>(A)</b>
		Displacement

		Oxidation <b>HSW</b>
		Precipitation and thermal decomposition <b>(A)</b>
	Biology - Environment	Habitats
		Adaptations
		Food Chains and Food Webs
		Pyramids
		Classification
	Biology – Food and Digestion	Food Groups
		Food Tests – Starch and Protein
		Food Tests – Fats and Sugars
		The Digestive Systems
		Digestive Enzymes <b>(A)</b>
		Non-Communicable Disease – Malnutrition, Starvation, Obesity
Half Term 6 (Summer Term)	Physics – Sound and Light	Wave introduction
		Wave properties
		Sound: pitch and volume
		How do we hear? <b>(A)</b>
		Speed of waves
	Physics - Space	Earth's Days
		Earth's Seasons
		The Solar System
		Changing ideas about the Solar System <b>(A)</b>



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		4. Modelling the particle model
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		The menstrual cycle
		Tampon investigation
		Fertilisation
		Pregnancy
		8. Impact of lifestyle on pregnancy <b>(A)</b>
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		Making compounds <b>HSW</b>
		Naming Compounds
		Writing word equations
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		Neutralisation
		Naming salts
		Neutralisation <b>HSW</b>
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		Electric circuits and components
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		Magnetic fields
		Electromagnets and their uses
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