KS3 Science curriculum overview 2025-2026

Year	HT 1	HT2	HT3	HT4	HT5	HT6
7	**Introduction to science**	**Particle model of matter**	**Electricity**	**Reproduction**	**Acids and alkalis**	**Ecosystems**
	Safety rules Scientific apparatus Drawing scientific apparatus The Bunsen burner Risks and hazards	The particle model Properties of solids liquids and gases Changes of state Cooling curves Expansion and contraction Diffusion Density Gas pressure	Drawing circuits Current Current in Series and parallel circuits Potential Difference Potential difference in series circuits and Parallel circuits Resistance	Female reproductive system Male reproductive system Fertilisation Embryo development Healthy Pregnancy Puberty and adolescence (to include the menstrual cycle) Flower and pollination Plant reproduction and germination Seed dispersal and development.	Acid and Alkali The pH scale Neutralisation Making a Salt Naming salts Word Equations	Food chains Food Webs Disruption to food webs Competition Adaptations Population and sizes Effects on Ecosystems
	Energy	**Cells**	**Separating mixtures**		**Forces**	**Space and the solar system**
	Energy stores Energy pathways Conservation of energy Dissipation of energy Variables Work done	Using a microscope Looking at cells Plant and animal cells Unicellular organisms Specialised animal cells The organisation of organisms.	Pure and impure Dissolving and Solubility Filtration Crystallisation and Evaporation Distillation Chromatography		Contact and non-contact forces Balanced and unbalanced forces Friction and drag Forces and elasticity Gravity and weight	Space and the Universe Solar System Day, Night and Seasons. The phases of the moon. Lunar and solar eclipses.

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8	**Genetics**	**Chemical reactions**	**Forces and pressure**	**Magnetism**	**Thermal energy transfer**	**Health and disease**
	Inside the nucleus Discovery of DNA Variation- genetic and environmental. Continuous and discontinuous variation Evolution by natural selection Classification system	Physical or Chemical Change Exothermic and Endothermic reactions Temperature Changes in Chemical Reactions Conservation of mass Thermal decomposition Oxidation Symbol equations Metals and acids Acids and metal carbonate	Moments and levers Pressure Pressure in Fluids Atmospheric Pressure Floating and sinking. Pressure GR	What is a magnet? What is a magnetic field? The Earth's Magnetic Field Electromagnetism Using electromagnets	Conduction Convection Radiation Reducing unwanted energy transfers	What is health? Balanced and unbalanced diet, Effect of recreational drug use. Effect of smoking Effect on alcohol Pathogens Bacterial disease Natural defences
	Sound	**Nutrition and digestion**	**Respiration and gas exchange**	**Light**	**Movement**	**Earth and atmosphere**
	Wave Properties Frequency and Amplitude Echos and superposition The Ear and hearing Acoustics	Nutrition and Diet Testing for carbohydrates Testing for Lipids and Proteins Digestive System Enzymes Temperature and enzymes	Respiratory system Aerobic respiration Breathing Effect of exercising Anaerobic respiration Fermentation	Properties of light waves Reflection Refraction The Eye Correcting Vision Colours and Filters	The skeleton What are joints? Looking at a joint Muscle action Forces on muscles	Potable Water Testing Potable water Problems with metal extraction Reduce, reuse, recycle Greenhouse Effect Carbon Cycle Combustion of Hydrocarbons

						Earths Structure Igneous and Sedimentary rocks Testing rocks

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9	**Ecology**	**Atomic structure**	**Forces and motion**	**The periodic table**	**Electricity in the home**	**Using resources**
	Food chains and webs Biomass Pyramids Bioaccumulation Abiotic and Biotic Factors Systematic Sampling Random Sampling Biodiversity Effect of insects on human food security	Atoms, Elements and Compounds Chemical formulae and Conservation of Mass Atomic structure Subatomic particles Development of the Atomic model Comparing atomic models Electron structure Isotopes	Speed Calculating speed Distance-time graphs Relative motion Speed cameras	The Periodic Table Developing the Periodic Table Metals and Non-metals Group 1 Elements Group 7 Elements Displacement in Group 7 Explaining Trends in Reactivity Transition Elements as Catalysts	Static electricity Uses of Static AC-DC and mains electricity 3 Pin Plug and earthing Energy bills Power National grid	Finite resources Life cycle assessment Recycling Metal extraction Potable water Wastewater treatment Corrosion
	Energy resources	**Photosynthesis**	**Respiration and gas exchange**		**Cell structure**	
	Fossil fuels Power Stations Renewable energy resources Paying for energy Non Renewable energy resources	Adaptation of leaves Photosynthesis and How to test leaves for starch Importance of	Respiratory system Aerobic respiration Breathing Effect of exercising Anaerobic respiration		Cell structure Using microscopes Calculating magnification Comparing microscopes	

		photosynthesis Rate of photosynthesis.	Fermentation		Prokaryotic cells Specialised cells Cell differentiation	