



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	<p>Topic: B1 Cells</p> <p>Using microscopes Animal and plant cells Diffusion Osmosis</p> <p>Topic: P1 Energy</p> <p>Energy stores Energy and Work Gravitational Potential Energy Kinetic energy Energy and Power</p> <p>Topic: C1 Atomic Structure</p> <p>Chemical equations Separating mixtures Structure of the atom Ions and isotopes</p>	<p>Topic: B2 Cell Division</p> <p>Cell Division Growth and differentiation Stem cells</p> <p>Topic: B3 (Organisation and the) Digestive System</p> <p>Tissues and organs Chemistry of food Human digestive system Catalysts and enzymes</p> <p>Topic: C2 The Periodic Table</p> <p>History of the periodic table Electronic structure Group 1 - Alkali Metals Group 7 – Halogens</p> <p>Topic: P2 Energy transfer</p> <p>Conduction, convection and infrared radiation Specific heat capacity</p>	<p>Topic: B4 Organising animals and Plants</p> <p>Heart and blood vessels Breathing and gas exchange Organ systems in plants Exchange of materials using transport systems in plants</p> <p>Topic: C3 Structure and Bonding</p> <p>Ionic Bonding Covalent bonding Ionic and covalent compounds Fullerenes and graphite</p> <p>Topic: P3 Energy resources</p> <p>Energy from Renewable resources Energy issues</p>	<p>Topic: C4 Chemical calculations</p> <p>Relative formula mass and moles Mass calculations and balanced equations Titration and titration calculations(T) Volumes of gases (T)</p> <p>Topic: P6 Molecules and matter</p> <p>Density States of matter Changing state Specific latent heat Internal energy</p>	<p>Topic: B5 Communicable Disease</p> <p>Health and disease Pathogens Bacterial growth Viral diseases Bacterial diseases Human defence responses</p>	<p>Topic: C5 Chemical changes</p> <p>Reactivity series Displacement reactions Extracting metals Salts from metals Making salts Acids/pH scale</p> <p>Topic: P4 Electricity</p> <p>Electric current, potential difference and resistance Series and parallel circuits</p>
Year 10	<p>Topic: B8 Photosynthesis Knowledge and skills</p> <p>Photosynthesis Rate of photosynthesis How plants use glucose Making the most of photosynthesis</p> <p>Topic: C7 Energy changes</p> <p>Exothermic/endothermic reactions Energy profile diagrams Bond energy calculation Chemical cell, batteries and fuel cells</p> <p>Topic: P4 Electricity</p> <p>Electric current, potential difference and resistance Series and parallel circuits</p>	<p>Topic: B9 Respiration</p> <p>Aerobic respiration The response to exercise Anaerobic respiration Metabolism and the liver</p> <p>Topic: B7 Non communicable diseases</p> <p>Cancer Smoking and the risk of disease Diet, exercise and disease Alcohol and other carcinogens</p> <p>Topic: C8 Rates and equilibrium</p> <p>Effect of temperature, concentration, surface area and catalyst Reversible reactions Dynamic equilibrium Altering conditions</p>	<p>CATCH UP OF CONTENT IN LOCKDOWN 2021</p>	<p>Topic: B10 The human nervous system</p> <p>Principles of homeostasis Nervous system Reflex actions The brain (T) The eye (T)</p> <p>Topic: B11 Hormonal coordination</p> <p>Reproduction Menstrual cycle Fertility/infertility Plant hormones and responses (T) Using plant hormones(T) Hormonal control Blood glucose levels Diabetes</p> <p>Topic: C9 Crude oil and fuels</p>	<p>Topic: B13 Reproduction</p> <p>Types of reproduction Cell division DNA and the genome Inheritance Genetics Genetic screening</p> <p>Topic: B14 Variation and evolution</p> <p>Evolution by natural selection Selective breeding Genetic engineering</p> <p>Topic: P7 Radioactivity</p> <p>Atoms and radiation Discovery and changes in the nucleus Alpha, beta and gamma radiation Activity and half life</p>	<p>Topic: B4 Organising animals and Plants</p> <p>Heart and blood vessels Breathing and gas exchange Organ systems in plants Exchange of materials using transport systems in plants</p> <p>Topic: P10 Force and motion</p> <p>Force and acceleration Weight and terminal velocity Momentum Impact forces Forces and elasticity</p>

	<p>Topic: P5 Electricity</p> <p>Alternating current Electrical appliances and power Energy transfer and currents</p>	<p>Topic: P12 Wave properties</p> <p>The nature and properties of waves Reflection and refraction</p> <p>Topic: P13 Electromagnetic waves</p> <p>The electromagnetic spectrum Light, infrared, microwaves and radio waves Communications UV waves, x-rays, and gamma rays X-rays in medicine</p>		<p>Hydrocarbons Fractional distillation Combustion Cracking hydrocarbons</p>	<p>Nuclear radiation in medicine(T) Nuclear fission/fusion(T) Nuclear issues (T)</p>	
Year 11	<p>Topic: B14 Variation and evolution</p> <p>Evolution by natural selection Selective breeding Genetic engineering</p> <p>Topic: B15 Genetics and evolution</p> <p>Extinction Antibiotic resistance bacteria Classification</p> <p>Topic: C12 Chemical analysis</p> <p>Pure substances and mixtures Analysing chromatograms Testing for gases</p> <p>Topic: P12 Wave properties</p> <p>The nature and properties of waves Reflection and refraction</p>	<p>Topic: B16 Adaptation, interdependence and competition</p> <p>The importance of communities Organisms in their environment Distribution and abundance Competition in plants and animals Adapt and survive Adaptation in plants and animals</p> <p>Topic: C13 The Earth's atmosphere</p> <p>History of our atmosphere Our evolving atmosphere Greenhouse gases Global climate change Atmospheric pollutants</p> <p>Topic: P13 Electromagnetic waves</p> <p>The electromagnetic spectrum Light, infrared, microwaves and radio waves Communications UV waves, x-rays, and gamma rays X-rays in medicine</p>	<p>Topic: B17 Organising an ecosystem</p> <p>Feeding relationships Materials recycling The carbon cycle</p> <p>Topic: C14 The Earth's resources</p> <p>Finite and renewable resources Water safe to drink Treating waste water Extracting metals from ores Life cycle assessments Reduce, reuse, recycle</p> <p>Topic: C15 Using our resources</p> <p>Rusting Alloys Composites The Haber process</p>	<p>Topic: B17 Organising an ecosystem</p> <p>Feeding relationships Materials recycling The carbon cycle</p> <p>Topic: B18 Biodiversity and ecosystems</p> <p>The human population explosion Air, land and water pollution Deforestation and peat destruction Global warming Maintaining biodiversity</p> <p>Topic: P15 Electromagnetism</p> <p>Magnetic fields of electric currents The motor effect</p>		