

# Biology

	September	October	November	December	January	February	March	April	May	June	July		
<b>7</b>	<b><u>Cells</u></b> <ul style="list-style-type: none"> <li>Animal</li> <li>Plant</li> <li>Specialised</li> </ul>	<b><u>Forces</u></b> <ul style="list-style-type: none"> <li>Types of Force</li> <li>Balanced &amp; Unbalanced</li> <li>Hooks Law</li> </ul>	<b><u>Sound</u></b> <ul style="list-style-type: none"> <li>Properties of Waves</li> <li>Speed of sound</li> <li>Types of wave</li> </ul>	<b><u>Particles</u></b> <ul style="list-style-type: none"> <li>States of Matter</li> <li>Change of State</li> </ul>	<b><u>Elements &amp; Atoms</u></b> <ul style="list-style-type: none"> <li>Atoms</li> <li>Molecules</li> <li>Chemical Symbols</li> </ul>	<b><u>Structure</u></b> <ul style="list-style-type: none"> <li>Breathing Systems</li> <li>Skeleton</li> <li>Joints</li> </ul>	<b><u>Reproduction</u></b> <ul style="list-style-type: none"> <li>Male/Female reproductive organs</li> <li>Pollination</li> <li>Menstrual Cycles</li> </ul>	<b><u>Light</u></b> <ul style="list-style-type: none"> <li>Transmission</li> <li>Reflection</li> <li>Refraction</li> <li>Optics</li> </ul>	<b><u>Space</u></b> <ul style="list-style-type: none"> <li>Solar System</li> <li>Seasons</li> <li>Moon</li> <li>Orbits</li> </ul>	<b><u>Reactions</u></b> <ul style="list-style-type: none"> <li>Chemical Reactions</li> <li>Exo &amp; Endo</li> <li>Conservation of Mass</li> </ul>	<b><u>Acids &amp; Alkalis</u></b> <ul style="list-style-type: none"> <li>pH Scales</li> </ul>		
	<b>Link:</b> Cells	<b>Link:</b> Forces	<b>Link:</b> Energy Waves	<b>Link:</b> Chemical Changes Materials	<b>Link:</b> Periodic Table	<b>Link:</b> Systems	<b>Link:</b> Cells Systems Ecology	<b>Link:</b> Energy Waves	<b>Link:</b> Forces Fields	<b>Link:</b> Quantitative Chemistry Chemical Changes	<b>Link:</b> Materials Chemical Changes		
<b>8</b>	<b><u>Health &amp; Lifestyle</u></b> <ul style="list-style-type: none"> <li>Diet</li> <li>Digestive System</li> <li>Drugs</li> <li>Smoking</li> </ul>	<b><u>Ecosystems</u></b> <ul style="list-style-type: none"> <li>Photosynthesis</li> <li>Respiration</li> <li>Energy Transfer</li> <li>Human Impact</li> </ul>	<b><u>Periodic Table</u></b> <ul style="list-style-type: none"> <li>Periodic Table</li> <li>Patterns in Chemistry</li> <li>Metals</li> </ul>	<b><u>Separation Techniques</u></b> <ul style="list-style-type: none"> <li>Mixtures</li> <li>Filtration</li> <li>Evaporation</li> <li>Chromatography</li> </ul>	<b><u>Electricity</u></b> <ul style="list-style-type: none"> <li>Static</li> <li>Circuits</li> <li>Magnetism</li> </ul>	<b><u>Adaptation &amp; Inheritance</u></b> <ul style="list-style-type: none"> <li>DNA</li> <li>Variation</li> <li>Adaptations</li> <li>Biodiversity</li> </ul>	<b><u>Metals &amp; Acids</u></b> <ul style="list-style-type: none"> <li>Metals &amp; Metal Oxides</li> <li>Extraction of Metals</li> </ul>	<b><u>The Earth</u></b> <ul style="list-style-type: none"> <li>Composition</li> <li>Structure</li> </ul>	<b><u>Energy</u></b> <ul style="list-style-type: none"> <li>Energy resources</li> <li>Heat &amp; Temperature</li> <li>Work Done</li> </ul>	<b><u>Motion &amp; Pressure</u></b> <ul style="list-style-type: none"> <li>Speed</li> <li>Motion Graphs</li> <li>Moments</li> <li>Pressure in liquids and gases</li> </ul>			
	<b>Link:</b> Cells Systems	<b>Link:</b> Cells Ecology	<b>Link:</b> Periodic Tables Chemical Changes	<b>Link:</b> Materials	<b>Link:</b> Energy Fields	<b>Link:</b> Cells Genetics Ecology	<b>Link:</b> Chemical Changes Materials Periodic Table & Elements	<b>Link:</b> Materials	<b>Link:</b> Energy Forces	<b>Link:</b> Forces			
<b>9</b>	<b><u>Cell Biology</u></b> <ul style="list-style-type: none"> <li>Eukaryotes &amp; Prokaryotes</li> <li>Animal &amp; Plant Cells</li> <li>Specialised cells</li> </ul>		<ul style="list-style-type: none"> <li>Microscopy</li> <li>Culturing Micro-organisms</li> <li>Mitosis</li> </ul>	<ul style="list-style-type: none"> <li>Diffusion</li> <li>Osmosis</li> <li>Active Transport</li> <li>Stem Cells</li> </ul>	<b><u>Organisation</u></b> <ul style="list-style-type: none"> <li>Organisation &amp; Hierarchy</li> <li>Digestive System</li> </ul>		<ul style="list-style-type: none"> <li>Heart</li> <li>Blood 7 Blood Vessels</li> <li>CHD</li> </ul>	<ul style="list-style-type: none"> <li>Health &amp; Lifestyle</li> <li>Cancer</li> <li>Plant Organ Systems</li> </ul>					
	<b>Link:</b> Cells Genetics Systems					<b>Link:</b> Cells Genetics Systems							
<b>10</b>	<b><u>Infection and Response</u></b> <ul style="list-style-type: none"> <li>Types of disease</li> <li>White blood cells</li> <li>Developing drugs &amp; uses</li> </ul>			How diseases are spread Vaccinations Plant disease/defences	<b><u>Bioenergetics</u></b> <ul style="list-style-type: none"> <li>Photosynthesis</li> <li>Respiration</li> <li>Exercise</li> </ul>			Limiting factors Metabolism	<b><u>Homeostasis &amp; Response</u></b> <ul style="list-style-type: none"> <li>Nervous system &amp; Reflexes</li> <li>Eye</li> <li>Glucose regulation</li> <li>Fertility</li> </ul>				Brain Thermoregulation Water regulation Negative feedback Menstrual cycle Plant Hormones
	<b>Link:</b> Cells Systems			<b>Link:</b> Cells			<b>Link:</b> Systems						
<b>11</b>	<b><u>Inheritance</u></b> <ul style="list-style-type: none"> <li>Structure of DNA</li> <li>Meiosis</li> <li>Mendel</li> <li>Selective Breeding</li> </ul>				Protein synthesis Inheritance Natural selection Speciation	Cloning Classification	<b><u>Ecology</u></b> <ul style="list-style-type: none"> <li>Competition</li> <li>Sampling</li> <li>Population &amp; Pollution</li> </ul>			Adaptations Nutrient Cycles Energy transfer	Food chains/webs Decay Farming methods	<b>Revision</b>	<b>Exams</b>
	<b>Link:</b> Cells Genetics				<b>Link:</b> Ecology								

# Physics

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<b>7</b>	<u><b>Cells</b></u> <ul style="list-style-type: none"> <li>Animal</li> <li>Plant</li> <li>Specialised</li> </ul>	<u><b>Forces</b></u> <ul style="list-style-type: none"> <li>Types of Force</li> <li>Balanced &amp; Unbalanced</li> <li>Hooks Law</li> </ul>	<u><b>Sound</b></u> <ul style="list-style-type: none"> <li>Properties of Waves</li> <li>Speed of sound</li> <li>Types of wave</li> </ul>	<u><b>Particles</b></u> <ul style="list-style-type: none"> <li>States of Matter</li> <li>Change of State</li> </ul>	<u><b>Elements &amp; Atoms</b></u> <ul style="list-style-type: none"> <li>Atoms</li> <li>Molecules</li> <li>Chemical Symbols</li> </ul>	<u><b>Structure</b></u> <ul style="list-style-type: none"> <li>Breathing Systems</li> <li>Skeleton</li> <li>Joints</li> </ul>	<u><b>Reproduction</b></u> <ul style="list-style-type: none"> <li>Male/Female reproductive organs</li> <li>Pollination</li> <li>Menstrual Cycles</li> </ul>	<u><b>Light</b></u> <ul style="list-style-type: none"> <li>Transmission</li> <li>Reflection</li> <li>Refraction</li> <li>Optics</li> </ul>	<u><b>Space</b></u> <ul style="list-style-type: none"> <li>Solar System</li> <li>Seasons</li> <li>Moon</li> <li>Orbits</li> </ul>	<u><b>Reactions</b></u> <ul style="list-style-type: none"> <li>Chemical Reactions</li> <li>Exo &amp; Endo</li> <li>Conservation of Mass</li> </ul>	<u><b>Acids &amp; Alkalis</b></u> <ul style="list-style-type: none"> <li>pH Scales</li> </ul>	
	<b>Link:</b> Cells	<b>Link:</b> Forces	<b>Link:</b> Energy Waves	<b>Link:</b> Chemical Changes Materials	<b>Link:</b> Periodic Table	<b>Link:</b> Systems	<b>Link:</b> Cells Systems Ecology	<b>Link:</b> Energy Waves	<b>Link:</b> Forces Fields	<b>Link:</b> Quantitative Chemistry Chemical Changes	<b>Link:</b> Materials Chemical Changes	
<b>8</b>	<u><b>Health &amp; Lifestyle</b></u> <ul style="list-style-type: none"> <li>Diet</li> <li>Digestive System</li> <li>Drugs</li> <li>Smoking</li> </ul>	<u><b>Ecosystems</b></u> <ul style="list-style-type: none"> <li>Photosynthesis</li> <li>Respiration</li> <li>Energy Transfer</li> <li>Human Impact</li> </ul>	<u><b>Periodic Table</b></u> <ul style="list-style-type: none"> <li>Periodic Table</li> <li>Patterns in Chemistry</li> <li>Metals</li> </ul>	<u><b>Separation Techniques</b></u> <ul style="list-style-type: none"> <li>Mixtures</li> <li>Filtration</li> <li>Evaporation</li> <li>Chromatography</li> </ul>	<u><b>Electricity</b></u> <ul style="list-style-type: none"> <li>Static</li> <li>Circuits</li> <li>Magnetism</li> </ul>	<u><b>Adaptation &amp; Inheritance</b></u> <ul style="list-style-type: none"> <li>DNA</li> <li>Variation</li> <li>Adaptations</li> <li>Biodiversity</li> </ul>	<u><b>Metals &amp; Acids</b></u> <ul style="list-style-type: none"> <li>Metals &amp; Metal Oxides</li> <li>Extraction of Metals</li> </ul>	<u><b>The Earth</b></u> <ul style="list-style-type: none"> <li>Composition</li> <li>Structure</li> </ul>	<u><b>Energy</b></u> <ul style="list-style-type: none"> <li>Energy resources</li> <li>Heat &amp; Temperature</li> <li>Work Done</li> </ul>	<u><b>Motion &amp; Pressure</b></u> <ul style="list-style-type: none"> <li>Speed</li> <li>Motion Graphs</li> <li>Moments</li> <li>Pressure in liquids &amp; gases</li> </ul>		
	<b>Link:</b> Cells Systems	<b>Link:</b> Cells Ecology	<b>Link:</b> Periodic Tables Chemical Changes	<b>Link:</b> Materials	<b>Link:</b> Energy Fields	<b>Link:</b> Cells Genetics Ecology	<b>Link:</b> Chemical Changes Materials Periodic Table & Elements	<b>Link:</b> Materials	<b>Link:</b> Energy Forces	<b>Link:</b> Forces		
<b>9</b>	<u><b>1. Energy</b></u> <ul style="list-style-type: none"> <li>Energy stores &amp; Systems</li> <li>Energy changes in systems</li> <li>Energy transfer in a system</li> <li>National &amp; Global energy resources</li> <li><b>Required Prac 1: Specific Heat Capacity</b></li> <li><b>Required Prac 2: Insulators</b></li> </ul>				<u><b>2. Electricity</b></u> <ul style="list-style-type: none"> <li>National grid</li> <li>Electrical charge &amp; current</li> <li>Current, resistance &amp; Potential difference</li> <li>Series &amp; Parallel circuits</li> <li><b>Required Prac 3: Resistance in circuits</b></li> <li><b>Required Prac 4: I-V characteristics</b></li> </ul>				<u><b>3. Particle Model of Matter</b></u> <ul style="list-style-type: none"> <li>Density of materials</li> <li>Internal energy</li> <li>Specific latent heat</li> <li>Increasing pressure of a gas</li> <li><b>Required Prac 5: Determining densities of solids &amp; Liquids</b></li> </ul>			
	<b>Link:</b> Energy				<b>Link:</b> Energy    Fields				<b>Link:</b> Energy    Forces			
<b>10</b>	<u><b>4. Structure of the Atom</b></u> <ul style="list-style-type: none"> <li>Mass number, atomic number &amp; Isotopes</li> <li>Radioactive decay</li> <li>Half life</li> <li>Background radiation</li> </ul>			<u><b>5. Forces</b></u> <ul style="list-style-type: none"> <li>Scalars &amp; Vectors</li> <li>Gravity</li> <li>Elasticity</li> <li>Moments</li> <li>Newtons Laws</li> <li><b>Required Prac 6: Hookes Law</b></li> <li><b>Required Prac 7: Effects of force on acceleration</b></li> </ul>			<u><b>6. Waves</b></u> <ul style="list-style-type: none"> <li>Types &amp; Properties of waves</li> <li>Types &amp; Properties of electromagnetic waves</li> <li>Lenses &amp; Visible light</li> <li><b>Required Prac 8: Ripple Tank</b></li> <li><b>Required Prac 9: Reflection of light</b></li> <li><b>Required Prac 10: Black body radiation</b></li> </ul>					
	<b>Link:</b> Energy    Waves			<b>Link:</b> Energy    Forces			<b>Link:</b> Waves    Fields					

11	<b>7. Magnetism &amp; Electromagnetism</b> <ul style="list-style-type: none"> <li>• Permeant &amp; Induced magnetism effect</li> <li>• Magnetic forces</li> <li>• Forces &amp; Fluids national grid</li> </ul>	Motor Induced potential Transformers & the	<b>8. Space</b> <ul style="list-style-type: none"> <li>• Solar system</li> <li>• Stability of orbital motion</li> <li>• Red shift</li> </ul>	Revision	Exams
	<b>Link:</b> Fields Forces	<b>Link:</b> Forces Fields Waves			

# Chemistry

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<b>7</b>	<b><u>Cells</u></b> <ul style="list-style-type: none"> <li>Animal</li> <li>Plant</li> <li>Specialised</li> </ul>	<b><u>Forces</u></b> <ul style="list-style-type: none"> <li>Types of Force</li> <li>Balanced &amp; Unbalanced</li> <li>Hooks Law</li> </ul>	<b><u>Sound</u></b> <ul style="list-style-type: none"> <li>Properties of Waves</li> <li>Speed of sound</li> <li>Types of wave</li> </ul>	<b><u>Particles</u></b> <ul style="list-style-type: none"> <li>States of Matter</li> <li>Change of State</li> </ul>	<b><u>Elements &amp; Atoms</u></b> <ul style="list-style-type: none"> <li>Atoms</li> <li>Molecules</li> <li>Chemical Symbols</li> </ul>	<b><u>Structure</u></b> <ul style="list-style-type: none"> <li>Breathing Systems</li> <li>Skeleton</li> <li>Joints</li> </ul>	<b><u>Reproduction</u></b> <ul style="list-style-type: none"> <li>Male/Female reproductive organs</li> <li>Pollination</li> <li>Menstrual Cycles</li> </ul>	<b><u>Light</u></b> <ul style="list-style-type: none"> <li>Transmission</li> <li>Reflection</li> <li>Refraction</li> <li>Optics</li> </ul>	<b><u>Space</u></b> <ul style="list-style-type: none"> <li>Solar System</li> <li>Seasons</li> <li>Moon</li> <li>Orbits</li> </ul>	<b><u>Reactions</u></b> <ul style="list-style-type: none"> <li>Chemical Reactions</li> <li>Exo &amp; Endo</li> <li>Conservation of Mass</li> </ul>	<b><u>Acids &amp; Alkalis</u></b> <ul style="list-style-type: none"> <li>pH Scales</li> </ul>	
	<b>Link:</b> Cells	<b>Link:</b> Forces	<b>Link:</b> Energy Waves	<b>Link:</b> Chemical Changes Materials	<b>Link:</b> Periodic Table	<b>Link:</b> Systems	<b>Link:</b> Cells Systems Ecology	<b>Link:</b> Energy Waves	<b>Link:</b> Forces Fields	<b>Link:</b> Quantitative Chemistry Chemical Changes	<b>Link:</b> Materials Chemical Changes	
<b>8</b>	<b><u>Health &amp; Lifestyle</u></b> <ul style="list-style-type: none"> <li>Diet</li> <li>Digestive System</li> <li>Drugs</li> <li>Smoking</li> </ul>	<b><u>Ecosystems</u></b> <ul style="list-style-type: none"> <li>Photosynthesis</li> <li>Respiration</li> <li>Energy Transfer</li> <li>Human Impact</li> </ul>	<b><u>Periodic Table</u></b> <ul style="list-style-type: none"> <li>Periodic Table</li> <li>Patterns in Chemistry</li> <li>Metals</li> </ul>	<b><u>Separation Techniques</u></b> <ul style="list-style-type: none"> <li>Mixtures</li> <li>Filtration</li> <li>Evaporation</li> <li>Chromatography</li> </ul>	<b><u>Electricity</u></b> <ul style="list-style-type: none"> <li>Static</li> <li>Circuits</li> <li>Magnetism</li> </ul>	<b><u>Adaptation &amp; Inheritance</u></b> <ul style="list-style-type: none"> <li>DNA</li> <li>Variation</li> <li>Adaptations</li> <li>Biodiversity</li> </ul>	<b><u>Metals &amp; Acids</u></b> <ul style="list-style-type: none"> <li>Metals &amp; Metal Oxides</li> <li>Extraction of Metals</li> </ul>	<b><u>The Earth</u></b> <ul style="list-style-type: none"> <li>Composition</li> <li>Structure</li> </ul>	<b><u>Energy</u></b> <ul style="list-style-type: none"> <li>Energy resources</li> <li>Heat &amp; Temperature</li> <li>Work Done</li> </ul>	<b><u>Motion &amp; Pressure</u></b> <ul style="list-style-type: none"> <li>Speed</li> <li>Motion Graphs</li> <li>Moments</li> <li>Pressure in liquids and gases</li> </ul>		
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<b>9</b>	<b><u>1. Atomic Structure</u></b> <ul style="list-style-type: none"> <li>Atoms</li> <li>Compounds</li> <li>Elements</li> <li>Separation Techniques</li> <li>Trends &amp; History of the Periodic table</li> </ul>				<b><u>2. Bonding</u></b> <ul style="list-style-type: none"> <li>Ionic Bonding</li> <li>Covalent bonding</li> <li>Metallic bonding</li> <li>Nanoparticles</li> <li>Carbon technology</li> </ul>			<b><u>5. Energy Changes</u></b> <ul style="list-style-type: none"> <li>End &amp; Exo thermic reactions</li> <li>Cells &amp; Batteries</li> <li>Bond Energies</li> </ul>				
	<b>Link:</b> Periodic Table				<b>Link:</b> Periodic Table    Materials			<b>Link:</b> Chemical changes				
<b>10</b>	<b><u>4. Chemical Changes</u></b> <ul style="list-style-type: none"> <li>Acids</li> <li>Bases</li> <li>Reactivity series</li> <li>Electrolysis</li> </ul>			<b><u>3. Quantitative</u></b> <ul style="list-style-type: none"> <li>Relative formula mass</li> <li>Mole</li> <li>Conservation of Mass</li> <li>Maths skills</li> </ul>			<b><u>6. Rates of Reaction</u></b> <ul style="list-style-type: none"> <li>Factors effecting the rate</li> <li>Measuring rates</li> <li>Rate experiments</li> </ul>					
	<b>Link:</b> Periodic Table    Chemical Changes			<b>Link:</b> Quantitative Analysis			<b>Link:</b> Quantitative Analysis    Chemical Changes					
<b>11</b>	<b><u>7. Organic Chemistry</u></b> <ul style="list-style-type: none"> <li>Hydrocarbons</li> <li>Polymers</li> <li>Functional groups</li> </ul>	<b><u>8. Chemical analysis</u></b> <ul style="list-style-type: none"> <li>Chemical tests</li> <li>Chromatography</li> </ul>	<b><u>9. Chemistry of the atmosphere</u></b> <ul style="list-style-type: none"> <li>Atmosphere</li> <li>Climate change</li> </ul>	<b><u>10. Using resources</u></b> <ul style="list-style-type: none"> <li>Materials</li> <li>Recycling</li> <li>Water</li> </ul>			<b>Revision</b>		<b>Exams</b>			
	<b>Link:</b> Materials	<b>Link:</b> Quantitative Analysis	<b>Link:</b> Materials Chemical Changes	<b>Link:</b> Materials Chemical Changes								