

Science

Year 11 (Triple science) 2016-17									
Half-term	Topic	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	
1		Exchange of materials			Keeping internal conditions constant			Analysis and synthesis	
2		Analysis and synthesis				Using physics to make things work			
3		Magnetic fields to keep things moving			Energy calculations				
4		Energy calculations	Organic chemistry			Revision			
5									
6									

Year 11 (11.1) 2016-17								
Half-term	Topic	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1		Cells tissues and organs & ISA			Chemical calculations			Salts and electrolysis
2		Salts and electrolysis & ISA		Motion	Forces	Organisms in the environment	Structure and bonding	Work, Energy & momentum
3		Enzymes	Structure & properties	Current Electricity & ISA	Energy from respiration	Rates & energy		
4		Mains electricity	Inheritance	Radioactivity	Old & new species	Energy from nucleus	Revision	
5		Exam practise	Exam practise	Exam practise	GCSE Exams	GCSE Exams		
6		GCSE Exams	GCSE Exams					

## Science

### GCSE Science Year 11 (11.2) 2016-17

Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	C2.2 Structure & Properties	C2.2 Structure & Properties	P2.2 The Kinetic Energy of Objects	B2.4 Organisms and their Environment	C2.3 Quantitative Chemistry and Analysis	C2.3 Quantitative Chemistry and Analysis	P2.3 Currents in Electrical Circuits
2	P2.3 Currents in Electrical Circuits	B2.5 Proteins – Their Functions and Uses	C2.4 & C2.5 Rates of Reaction	P2.4 Mains Electricity and Apps.	Assessments	P2.4 Mains Electricity and Apps.	B2.6 Aerobic and Anaerobic Resp.
3	P2.5 Atomic Structure	P2.5 Atomic Structure	B2.7 Cell Division	B2.7 Cell Division	C2.6 Acids, Bases and Salts P2.6 Nuclear Fission		
4	B2.8 Fossils and Specification	C2.7 Electrolysis	Core Science Revision	Core Science Revision	Core Science Revision	Additional Science Revision	Additional Science Revision
5	Exam practise	Exam practise	Exam practise	GCSE Exams	GCSE Exams		
6	GCSE Exams	GCSE Exams	GCSE Exams				

Science

Year 10 (Triple science) 2016-17										
Half-term	Topic	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
1		Biological responses <ul style="list-style-type: none"> <li>• Brain</li> <li>• Eye</li> <li>• Common problems of eye</li> </ul>		Homeostasis in action <ul style="list-style-type: none"> <li>• Controlling body temperature</li> <li>• Removing waste products</li> <li>• Kidneys</li> <li>• Kidney dialysis</li> <li>• Kidney transplants</li> </ul>						
2		Chemical analysis <ul style="list-style-type: none"> <li>• Testing for positive ions</li> <li>• Testing for negative ions</li> <li>• Instrumental analysis</li> </ul>			Chemical calculations <ul style="list-style-type: none"> <li>• Titrations</li> <li>• Titration calculations</li> <li>• Volumes of gases</li> </ul>		Forces in balance <ul style="list-style-type: none"> <li>• Moments at work</li> <li>• Levers and gears</li> <li>• Moments and equilibrium</li> </ul>		Light <ul style="list-style-type: none"> <li>• Reflection of light</li> <li>• Refraction of light</li> </ul>	
3		Light <ul style="list-style-type: none"> <li>• Light and colour</li> <li>• Lenses</li> </ul> Using lenses		Genetics and evolution <ul style="list-style-type: none"> <li>• History of genetics</li> <li>• Theories of evolution</li> <li>• Accepting Darwin's ideas</li> <li>• Evolution and speciation</li> </ul>		Variation & evolution <ul style="list-style-type: none"> <li>• cloning</li> </ul>				
4		Organic Chemistry <ul style="list-style-type: none"> <li>• Reactions of alkenes</li> <li>• Structures of alcohols, carboxylic acids and esters</li> </ul>		Using our resources <ul style="list-style-type: none"> <li>• Rusting</li> <li>• Useful alloys</li> <li>• Properties of polymers</li> <li>• Haber process</li> <li>• Making fertilisers</li> </ul>				Hormonal coordination <ul style="list-style-type: none"> <li>• Plant hormones</li> </ul>		

## Science

		<ul style="list-style-type: none"> <li>Reactions and uses of alcohols</li> </ul>					
5		Radioactivity <ul style="list-style-type: none"> <li>Radiation in medicine</li> <li>Nuclear fission/fusion</li> <li>Nuclear issues.</li> </ul>	Preventing & treating disease <ul style="list-style-type: none"> <li>Monoclonal antibodies</li> </ul>	Polymers <ul style="list-style-type: none"> <li>Polymerisation</li> <li>Natural polymers</li> <li>DNA</li> </ul>			
6		Disease and bioenergetics	Genetics & reproduction <ul style="list-style-type: none"> <li>Sexual &amp; asexual reproduction</li> <li>DNA &amp; protein synthesis</li> <li>Gene expression and mutation</li> </ul>	Energy transfer <ul style="list-style-type: none"> <li>Infrared radiation</li> </ul>	<ul style="list-style-type: none"> <li>Electrical charges and fields</li> <li>Gas pressure and volume</li> </ul>	Periodic table/structure and bonding <ul style="list-style-type: none"> <li>Transition elements</li> <li>Nanoparticles</li> </ul>	Energy Changes <ul style="list-style-type: none"> <li>Chemical cells &amp; batteries</li> <li>Fuel cells.</li> </ul>

### Year 10 (10.1) 2016-17

Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	Cells & transport				Crude oil & fuels		Atomic structure
2	Atomic structure	Chemical calculations		Conservation and dissipation of energy	Electric circuits	Cell division	Organisation & digestive system
3	Organisation & digestive system	The periodic table	Structure and bonding		Electricity in the home		
4	Organising animals and plants		Chemical changes		Photosynthesis	Communicable diseases	

## Science

5	Molecules and matter	Electrolysis	Energy changes	Reproduction			
6	Rates & equilibrium		Energy resources	Respiration	Human nervous system	Motion	Force & motion

### GCSE Science Year 10 (10.2) 2016-17

Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	B2a – Tissues, Organs and Organ Systems	B2a – Tissues, Organs and Organ Systems	C1a Atoms, Elements, Compounds and Mixtures	C1a Atoms, Elements, Compounds and Mixtures	P1a Energy Transfers	P1a Energy Transfers	B1b – Transport in Cells
2	C1b – The Periodic Table	P1b – Energy Resources	P1b – Energy Resources	B2b – Health and Disease	Assessments	C2a – Bonding and Structure	C2a – Bonding and Structure
3	P2a – Circuits	P2a – Circuits	B2c – Enzymes and Digestion	C2b – States of Matter	P2b – Domestic Electricity		
4	B3 – Infection and Response	B3 – Infection and Response	C3 – Quantitative Chemistry	P3 – Particle Model of Matter	Assessments	B4 – Bioenergetics	B4 – Bioenergetics
5	C4 – Chemical Changes	C4 – Chemical Changes	P4 – Atomic Structure	B5a – The Nervous System	C5 – Energy Changes		
6	P5a – Force Basics	P5b – Forces and Elasticity	B5b – The Endocrine System	B5b – The Endocrine System	Assessments	C6a – Rates of Reaction	C6b – Reversible Reactions

Science

Year 9 2016-17							
Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	Cells & transport						
2	Crude oil & fuels		Atomic structure		Chemical calculations		
3	Chemical calculations	Conservation & dissipation of energy		Electrical circuits			
4	Cell division		Organisation & digestive system				The periodic table
5	The periodic table	Structure & bonding					
6	Electricity in the home		Organising animals and plants			Chemical changes	

Science

<b>Science Year 8 (8.1) 2016-17</b>							
Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	8B Respiration	8B Respiration	8F Compounds and Mixtures	8F Compounds and Mixtures	8J Magnets and Electromagnets	8J Magnets and Electromagnets	8C Microbes and Disease
2	8C Microbes and Disease	8G Rocks and Weathering	8G Rocks and Weathering	8K Light	Assessments	8D Ecological Relationships	8D Ecological Relationships
3	8H The Rock Cycle	8H The Rock Cycle	8L Sound and Hearing	8L Sound and Hearing	9A Inheritance and Selection		
4	9A Inheritance and Selection	9E Reactions and Metals	9E Reactions and Metals	9I Energy and Electricity	Assessments	9I Energy and Electricity	9B – Fit and Healthy
5	9B – Fit and Healthy	9F Patterns of Reactivity	9F Patterns of Reactivity	9J Gravity and Space	9J Gravity and Space		
6	9C Plants and Photosynthesis	9C Plants and Photosynthesis	9G Environmental Chemistry	9G Environmental Chemistry	Assessments	9K Speeding Up	9K Speeding Up

<b>Year 8 (8.2 &amp; 8.3) 2016-17</b>							
Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	<b>Photosynthesis, respiration and circulation</b> Photosynthesis, minerals from the soil, gas exchange in plants and breathing		<b>Photosynthesis, respiration and circulation</b> Respiration, asthma, exercise and smoking, the circulatory system and the heart		<b>Acids and alkalis</b> Everyday acids and alkalis, working safely with acids and alkalis, reactions of acids and alkalis and neutralisation.		

## Science

<b>2</b>	<b>Acids and alkalis</b> The pH scale and indicators, acids and metals	<b>Energy</b> Energy introduction, conservation of energy, energy from food and fuels	<b>Energy</b> Conduction, convection, radiation and evaporation and energy calculations		
<b>3</b>	<b>Reproduction and growth</b> Reproduction, reproduction in plants, fertilisation and seed dispersal	<b>Reproduction and growth</b> Reproduction in humans, menstruation, gestation and birth	<b>Materials and everyday chemistry</b> Everyday chemistry, resources and sustainable development		
<b>4</b>	<b>Materials and everyday chemistry</b> Polymers, ceramics, hydrocarbons and fuels	<b>Waves</b> Describing waves, light as a wave, refraction of light and colour	<b>Waves</b> Sound, ultrasound, energy and speed		
<b>5</b>	<b>Ecosystems</b> Ecosystems, food chains, food webs, pyramids of numbers and crop pollinations	<b>Ecosystems</b> Populations, pollution, effects of climate change and protecting the environment	<b>The Earth and atmosphere</b> The Earth, sedimentary, metamorphic and igneous rocks		
<b>6</b>	<b>The Earth and atmosphere</b> Rock cycle, recycling, biofuels, carbon cycle and the atmosphere	<b>Space</b> The Sun and stars, solar system, gravity and orbits, days and seasons.	<b>Space</b> The moon, galaxies and the universe, observing space and journeying into space		



## Science

<b>Year 7 2016-17</b>							
Half-term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
<b>1</b>	<b>Living Systems</b> Cells and organisation		<b>Living Systems</b> The skeletal and muscular systems		<b>The particulate nature of matter</b> Particle theory		
<b>2</b>	<b>The particulate nature of matter</b> Pure and impure substances		<b>Forces and motion</b> Describing motion		<b>Forces and motion</b> Forces		
<b>3</b>	<b>Diet and health</b> Digestion, food groups and food tests	<b>Diet and health</b> Malnutrition and obesity, energy requirements and drugs	<b>Atoms, elements and compounds</b> Elements and the Periodic Table, the difference between mixtures and compounds				
<b>4</b>	<b>Atoms, elements and compounds</b> Chemical symbols and formulas, chemical reactions and conservation of mass		<b>Levers, moments and pressure</b> Levers, calculating turning effects and the principle of moments		<b>Levers, moments and pressure</b> Simple machines, pressure and hydraulic machines		
<b>5</b>	<b>Genetics and evolution</b> Species, heredity and chromosomes, genes and DNA	<b>Genetics and evolution</b> Adaptation, natural selection and evolution, selective breeding and gene banks	<b>Reactions</b> Metals and non-metals and reactivity series				
<b>6</b>	<b>Reactions</b> Energy changes, exothermic and endothermic reactions and catalysts		<b>Electricity and electro-magnetism</b> Static electricity, electric field and charges, circuits and currents		<b>Electricity and electro-magnetism</b> Magnetic forces, the Earth's magnetism and electromagnets		

# Science

---