



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Reactions Metals and Non Metals Acids and Alkalis (HM-Plan)	Matter Particle model Separating materials (GFE –Plan)	Genes Variation Human Reproduction (PTU-Review)	Earth Earth Structure Universe (LB plan)	Ecosystems Interdependence Plant reproduction (SEL-review)	Revision of year 7
Year 7	An introduction on properties of metals before introducing the principles of reactivity series and displacement reactions. Students will then look at reactions between acids and alkalis including real life applications	An introduction to the three states of matter and the particle model. Students will be asked to apply this to a number of scientific concepts; e.g. diffusion, density pressure and dissolving / solutions. Students will then look at mixtures and the purity of substances (melting and boiling points)	Looking at the science behind human reproduction from fertilisation through to birth and beyond. Students will learn the anatomical structure of the reproductive system	Students will look closely at what makes up our planet. They will be asked to show an understanding of the chemical and geological processes that have shaped the Earth over time. In addition the topic covers the study of the universe and stars.	Students will focus on one organism on others in the ecosystem. In addition students will look at plants and how they reproduce including evaluating features of various types of seed dispersal	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
	Organisms Movement Cells (NBR-review)	Waves Sound Light (SEL-review)	Energy Energy cost Energy transfers (DHU-Review)	Electromagnet Voltage & Resistance current (SPY-review)	Forces Speed Gravity (NBR-review)	Revision of year 7
	In this unit pupils are introduced to cells. They will explore and develop their understanding of animal and plant cells, cell specialisation, cell division and organ systems. Students will also have the opportunity to develop microscopy skills, slide preparation and scientific drawing.	The topic introduces the movement of energy in the form of sound. In addition the topic will also introduce basic properties of light and covers key concepts such as reflection and refraction	The unit explores the relationship between kinetic energy and electrical energy and its application in generating energy for the home.	Students will look at conductivity of different materials, the uses of electricity and series and parallel circuits. Students will also be introduced to models that will help explain current, voltage and resistance.	The topic will include speed, velocity and pressure. Students will then be asked to apply this knowledge to real life examples such as a speeding car.	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
ICT	Research	presentation	Presentation	Research	Research and presentation	Write up and presentation



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	Light 8A (DH)	Health and disease 8C (DH)	Marvellous metals 8E (DH)	Working scientifically 8G (DH)	Space and forces 8I (DH)	Revision of year 8
Year 8	The topic introduces the basic properties of light and covers key concepts such as reflection and refraction. In addition the topic covers how we can use light to see the spectrum and seeing colour.	Students will look at a range of health issues including the use of drugs, smoking, exercise and the spread of disease.	The topic follows on from the year 7 work on elements and compounds focusing on the physical and chemical properties of metals before introducing the principles of reactivity series and displacement reactions.	Students will carry out a range of GCSE required practicals, chromatography, Hooke's law and reaction time. After completing the experiment students complete data analysis and questions on each practical.	In this topic students will learn about solar systems seasons, phases of the moon, gravity, satellites and eclipses	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
	Heat and sound 8B (RC)	Sorting and identifying 8D (RC)	Chemical reactions 8F (RC)	Motion. Pressure and moments 8H (RC)	Energy and electricity 8J (RC)	Revision of year 8
	Students will learn the basic principles of energy transfer involving heat. The topic includes thermal conduction, convection and radiation. In addition the topic will also introduce the movement of energy in the form of sound.	Students will look at the classification of living things including plants and animals, vertebrates and invertebrates. They will then move on looking at the causes of variation in species.	The unit covers the basic chemical processes of combustion, neutralisation, oxidation, exothermic and endothermic reactions and their applications in the real world.	Following on from the year 7 topic students will look at how forces act on an object. The topic will include speed, velocity and pressure and moments. Students will then be asked to apply this knowledge to real life examples such as a speeding car.	The unit explores the relationship between kinetic energy and electrical energy and its application in generating energy for the home. Also including safety diagrams and cost of electricity	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
ICT	Presentation-PPT	Research-the effects of disease	Presentation – Becketesium presentation	Modelling-using software to model speed	Data Logging-Resistance investigation	Research 1- The inconvenient truth



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	P1 Energy (HMA Review)	C2 Bonding, Structure and Properties of matter (JM review current)	B2 Organisation (LBA review)	C7 Organic Chemistry & C9 Chemistry of the atmosphere (JMA)	P2 Electricity (HMA review)	Revision of year 9
Year 9	4.1.1 Energy changes in a system, and the ways energy is stored before and after such changes 4.1.2 Conservation and dissipation of energy 4.1.3 National and global energy resources <i>Required practicals: Investigation to measure the specific heat capacity of one or more materials</i> <i>Investigate ways of reducing the unwanted energy transfers in a system.</i>	4.2.1 Chemical bonds, ionic, covalent and metallic 4.2.2 How bonding and structure are related to the properties of substances 4.2.3 Structure and bonding of carbon NOT 4.2.4 Bulk and surface properties of matter including nanoparticles	4.2.1 Principles of organisation 4.2.2 Animal tissues, organs and organ systems 4.2.3 Plant tissues, organs and systems <i>Required practical: Investigate the effect of a factor on the rate of an enzyme-controlled reaction.</i>	4.7.1 Carbon compounds as fuels and feedstock NOT including 4.7.2 Reactions of alkenes and alcohols 4.7.3 Synthetic and naturally occurring polymers 4.9.1 The composition and evolution of the Earth's atmosphere 4.9.2 Carbon dioxide and methane as greenhouse gases 4.9.3 Common atmospheric pollutants and their sources	4.2.1 Current, potential difference and resistance 4.2.2 Series and parallel circuits 4.2.3 Domestic uses and safety 4.2.4 Energy transfers NOT including 4.2.5 Static electricity <i>Required Practical: Use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance of an electrical circuit.</i> <i>This should include: the length of a wire (at constant temperature); combinations of resistors in series and parallel.</i>	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
	C1 Atomic structure and the periodic table (JM review)	B1 Cell Biology (DHU Review)	P6 Waves (HMA review)	B3 Infection and response (SPY review)	C10 Using resources (JMA review)	Revision of year 9
	4.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes 4.1.2 The periodic table NOT including 4.1.3 Properties of transition metals	4.1.1 Cell structure 4.1.2 Cell division 4.1.3 Transport in cells <i>Required practical 2: investigate the effect of salt or sugar solutions on plant tissue.</i> NOT including culturing microorganisms	4.6.1 Waves in air, fluids and solids 4.6.2 Electromagnetic waves NOT including 4.6.1.3 Reflection of waves 4.6.1.4 Sound waves 4.6.1.5 Waves for detection and exploration 4.6.2.5 Lenses 4.6.2.6 Visible light	4.3.1 Communicable diseases <i>Required practical: Investigate the effect of disinfectants or antibiotics on bacterial growth.</i> NOT including 4.3.2 Monoclonal antibodies and 4.3.3 Plant disease	4.10.1 Using the Earth's resources and obtaining potable water 4.10.2 Life cycle assessment and recycling NOT including 4.10.3 Using materials 4.10.4 The Haber process and the use of NPK fertilisers <i>Required Practical: Analysis and purification of water samples</i>	Structured revision of topics in this row in the run up to end of year assessments. This includes overlearning key points of each topic coupled with exam technique



			<p>4.6.3 Black body radiation <i>Req prac: Make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid and take appropriate measurements</i> <i>Req Prac: Investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.</i></p>			<p>tuition and exam practice.</p>
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	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
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Y10 Bio	B4 Bioenergetics (PTU review)	B5 Homeostasis and response (PTU review)	B6 Inheritance, variation & evolution (DHU review)	B6 Classification & B7 Ecology (PTU review)	B6 Classification & B7 Ecology (PTU review)	Revision of year 9 and 10 content
	4.4.1 Photosynthesis 4.4.2 Respiration <i>Required practical 4: investigate a factor that affects the rate of photosynthesis.</i>	4.5.1 Homeostasis 4.5.2 The human nervous system 4.5.3 Hormonal coordination in humans <i>Required practical: investigate the effect of a factor on human reaction time.</i> NOT including 4.5.2.2 The brain 4.5.2.3 The eye 4.5.2.4 Control of body temperature 4.5.3.3 Maintaining water and nitrogen balance in the body 4.5.4 Plant hormones	4.6.1 Reproduction 4.6.2 Variation and evolution 4.6.3 The development of understanding of genetics and evolution NOT including 4.6.1.3 Advantages and disadvantages of sexual and asexual reproduction 4.6.1.5 DNA structure 4.6.2.5 Cloning 4.6.3.1 Theory of evolution 4.6.3.2 Speciation 4.6.3.3 The understanding of genetics	4.6.4 Classification of living organisms 4.7.1 Adaptions, interdependence and competition 4.7.2 Organisation of an ecosystem 4.7.3 Biodiversity and the effect of human interaction on ecosystems <i>Required practical 7: investigate the population size of a common species in a habitat.</i> NOT including 4.7.2.3 Decomposition 4.7.2.4 Impact of the environmental change 4.7.4 Trophic levels in an ecosystem 4.7.5 Food production	4.6.4 Classification of living organisms 4.7.1 Adaptions, interdependence and competition 4.7.2 Organisation of an ecosystem 4.7.3 Biodiversity and the effect of human interaction on ecosystems <i>Required practical 7: investigate the population size of a common species in a habitat.</i> NOT including 4.7.2.3 Decomposition 4.7.2.4 Impact of the environmental change 4.7.4 Trophic levels in an ecosystem 4.7.5 Food production	Structured revision of topics B1-B7 with an emphasis on year 9 topics; B1-B3. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
Y10 Chem	C4 Chemical Changes (LBA review)	C4 Electrolysis & C5 Energy Changes (JMA)	C6 Equilibria & C8 Chemical analysis (LBA review)	C10 Using resources (JMA)	C7 Organic Chemistry & C9 Chemistry of the atmosphere (JMA review)	Revision of year 9 and 10 content
	4.4.1 Reactivity of metals 4.4.2 Reactions of acids <i>Required Practical: Preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate</i>	4.4.3 Electrolysis 4.5.1 Exothermic and endothermic reactions NOT including 4.5.2 Chemical cells and fuel cells <i>Required Practical: Investigate what happens when aqueous solutions are electrolysed using inert electrodes.</i> <i>Investigate the variables that affect temperature changes in reacting solutions</i>	4.6.2 Reversible reactions and dynamic equilibrium 4.8.1 Purity, formulation and chromatography 4.8.2 Identification of common gases NOT including 4.8.3 Identification of ions by chemical and spectroscopic means <i>Investigate how paper chromatography can be used to separate</i>	4.10.1 Using the Earth's resources and obtaining potable water 4.10.2 Life cycle assessment and recycling NOT including 4.10.3 Using materials 4.10.4 The Haber process and the use of NPK fertilisers <i>Required Practical: Analysis and purification of water samples</i>	4.7.1 Carbon compounds as fuels and feedstock NOT including 4.7.2 Reactions of alkenes and alcohols 4.7.3 Synthetic and naturally occurring polymers 4.9.1 The composition and evolution of the Earth's atmosphere 4.9.2 Carbon dioxide and methane as greenhouse gases 4.9.3 Common atmospheric pollutants and their sources	Structured revision of topics C1-C10 with an emphasis on year 9 topics; C1-C3. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.



	P6 Waves (HMA review)	P2 Electricity (HMA review)	P7 Magnetism and Electromagnetism (GFE review)	P3 Particle model of matter & P4 Atomic Structure (HMA review)	P5 forces completion from year 9 last year.	Revision of year 9 and 10 content
Y10 Phys	4.6.1 Waves in air, fluids and solids 4.6.2 Electromagnetic waves NOT including 4.6.1.3 Reflection of waves 4.6.1.4 Sound waves 4.6.1.5 Waves for detection and exploration 4.6.2.5 Lenses 4.6.2.6 Visible light 4.6.3 Black body radiation <i>Req prac: Make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid and take appropriate measurements</i> <i>Req Prac: Investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.</i>	4.2.1 Current, potential difference and resistance 4.2.2 Series and parallel circuits 4.2.3 Domestic uses and safety 4.2.4 Energy transfers NOT including 4.2.5 Static electricity <i>Req Practical: Use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements including a filament lamp, a diode and a resistor at constant temperature.</i>	4.7.1 Permanent and induced magnetism, magnetic forces and fields 4.7.2 The motor effect NOT including 4.7.2.4 Loudspeakers and 4.7.3 Induced potential, transformers and the National Grid.	4.3.1 Changes of state and the particle model 4.3.2 Internal energy and energy transfers 4.3.3 Particle model and pressure NOT including 4.3.3.2 Pressure in gases 4.3.3.3 Increasing the pressure of a gas <i>Required Prac: Use appropriate apparatus to make and record the measurements needed to determine the densities of regular and irregular solid objects and liquids.</i> 4.4.1 Atoms and isotopes 4.4.2 Atoms and nuclear radiation 4.4.3 Hazards and uses of radioactive emissions and of background NOT including 4.4.4 Nuclear fission and fusion	Applying what has been taught to Newton's laws and investigating motion. It may be possible to start the Term 6 tasks earlier in preparation for the mocks.	Structured revision of topics P1-P7 with an emphasis on year 9 topics; P1 and P5. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.



	Term 1	Term 2	Term 3	Term 4	Term 5
Y11 Biology	B3.1 Movement across membranes (plants taught with B3.2) (PTU)	B3.2 Transport Systems (inc. B3.1 membrane transport in plants) (DHU)	B3.3 Homeostasis (PTU)	B3.4 Humans and their Environment & B3 Mock (DHU)	Unit 1 and 2 Revision
	The cells, tissues and organs in animals are adapted to take up and get rid of dissolved substances. Different conditions can affect the rate of transfer. Sometimes energy is needed for transfer to take place.	Substances are transported around the body by the circulatory system (the heart, the blood vessels and the blood). Plants have separate transport systems for water and nutrients.	Humans need to remove waste products from their bodies to keep their internal environment relatively constant. Water and ion content, body temperature and blood glucose levels must be kept within very narrow ranges.	Humans often upset the balance of different populations in natural ecosystems, or change the environment so that some species find it difficult to survive. Humans rely on ecosystems for food, water and shelter.	Structured revision of B1 and B2 unit exams. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
Y11 Chemistry	C3.1 The Periodic Table & C3.2 Water (JMA)	C3.3 Energy Changes & C3.4 Chemical analysis (JMA)	C3.5 Making Ammonia & C3.6 Alcohols, Carboxylic Acids and Esters (JMA)	Some of B3.4, C3 mock & revision	Unit 1 and 2 Revision
	The modern periodic table has been developed from work begun by Newlands and Mendeleev. The water we drink is not pure water because it contains dissolved substances. It should be safe to drink water that has been treated.	Knowing the amount of energy involved in chemical reactions is useful so that resources are used efficiently and economically.	Alcohols and carboxylic acids are important organic chemicals that have many uses. Alcohols react with carboxylic acids to produce esters.	B3.4 Section on Biofuels/fuels and the impact of them on the environment. Structured revision of C3 unit exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of B1 and B2 unit exams. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
Y11 Physics	P3.3 Keeping things moving (HMA)	P3.1 Medical Application of Physics (DHU)	P3.2 Using Physics to make things work (HMA)	P3 Mock & Revision	Unit 1 and 2 Revision
	Electric currents produce magnetic fields. Forces produced in magnetic fields can be used to make things move. This is called the motor effect and is how appliances such as the electric motor create movement. Many appliances do not use 230 volts mains electricity. Transformers are used to provide the required potential difference.	Physics has many applications in the field of medicine. These include the uses of X-rays and ultrasound for scanning, and of light for image formation with lenses and endoscopes.	Many things, from simple toys to complex fairground rides, are constructed from basic machines such as the lever. A knowledge of the physics involved in balancing and turning can help us to make these appliances work.	Structured revision of P3 unit exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of B1 and B2 unit exams. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.



	Term 1	Term 2	Term 3	Term 4	Term 5
Y11 Double Biology DHU	Water Cooling ISA	B1 Revision	B1 Revision	B2 Revision	B2 Revision
	Necessary Key ISA skills. Carry out Water cooling ISA alongside other two teachers.	Structured revision of B1 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of B1 exam. Emphasis on 6 mark Q's This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of B2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of B2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
Y11 Double Chemistry RCO	Water Cooling ISA	C1 Revision	C1 Revision	C2 Revision	C2 Revision
	Analysis of their previous paper 1's. Method writing masterclass. Carry out Water cooling ISA alongside other two teachers.	Structured revision of C1 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of C1 exam. Emphasis on 6 mark Q's This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of C2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of C2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.
Y11 Double Physics HMA	Water Cooling ISA	P1 Revision	P1 Revision	P2 Revision	P2 Revision
	Analysis of their previous Paper 2 section A and B. Carry out Water cooling ISA alongside other two teachers.	Structured revision of P1 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of P1 exam. Emphasis on 6 mark Q's This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of P2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.	Structured revision of P2 exam. This includes overlearning key points of each topic coupled with exam technique tuition and exam practice.