Year 7		
Autumn 1 and Autumn 2	Spring 1 and Spring 2	Summer 1 and Summer 2
Content/ Processes	Content/ Processes	Content/ Processes
Enquiry Processes Cells & Movement Particle Model & Separating Techniques Speed & Gravity	Variation & Human Reproduction Acids & Alkalis Energy	Variation & Human Reproduction Acids & Alkalis Energy
Concepts	Concepts	Concepts
<u>Cells & Movement</u> Organisms <u>Particle Model & Separating Techniques</u> Matter <u>Speed & Gravity</u> Forces	<u>Variation & Reproduction</u> Genes <u>Acids & Alkalis</u> Reactions <u>Energy</u> Energy	<u>Variation & Reproduction</u> Genes <u>Acids & Alkalis</u> Reactions <u>Energy</u> Energy
Essential understanding	Essential understanding	Essential understanding
Cells as the fundamental unit of living organisms. organisms are made of cells. Cells are adapted to support the function of the cell. The structure and function of the human musculoskeletal system help it to provide support, protection and movement. The arrangement of particles in a solid, liquid or gas have an impact on the physical properties of a substance. Particles gain or lose energy as they	Importance of structural adaptations in human reproductive systems to allow for fertilisation and the stages of gestation. Chemical reactions always result in the formation of a new substance. The pH scale is used as a measure for how acidic or alkaline a substance is and indicators can be used to identify this. Acids react with alkalis in neutralisation reactions to create salt and water.	Importance of structural adaptations in human reproductive systems to allow for fertilisation and the stages of gestation. Chemical reactions always result in the formation of a new substance. The pH scale is used as a measure for how acidic or alkaline a substance is and indicators can be used to identify this. Acids react with alkalis in neutralisation reactions to create salt and water.

change state. A pure substance is a substance made of only one type of substance. Mixtures are impure and can be separated using a number of separating techniques. A force is a push, pull or twist and forces can change the speed of an object, change the shape or the direction an object is moving in. Forces can be contact or non-contact forces and the resultant forces on an object determine its motion. Speed is the distance divided by time taken and the representation of a journey can be done on a distance-time graph.	Energy can not be created or destroyed, only transferred from one store to another. Energy can be stored in different systems. Renewable resources can be replenished whereas finite resources will run out. A temperature difference between two objects will lead to an energy transfer from the hotter to the cooler one, through contact of particles or radiation. Insulators can be used to reduce thermal energy transfers.	Energy can not be created or destroyed, only transferred from one store to another. Energy can be stored in different systems. Renewable resources can be replenished whereas finite resources will run out. A temperature difference between two objects will lead to an energy transfer from the hotter to the cooler one, through contact of particles or radiation. Insulators can be used to reduce thermal energy transfers.
Assessment	Assessment	Assessment
Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content.	Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content.	Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content. Pupils will complete an unseen, summative written assessment covering particle model, separating techniques, cells, movement, speed, and gravity.
Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Two topics identified on the summative written assessment will be revisited and retaught. Homework is set on Kerboodle and is used to reinforce

		key content taught throughout the topic.

Year 8		
Autumn 1 and Autumn 2	Spring 1 and Spring 2	Summer 1 and Summer 2
Content/ Processes	Content/ Processes	Content/ Processes
Enquiry Processes Breathing & Digestion Periodic Table & Elements	Interdependence & Plant Reproduction Light & Sound	Earth Structure & Universe Metal Reactions
Concepts	Concepts	Concepts
<u>Breathing & Digestion</u> Organisms <u>Periodic Table & Elements</u> Matter	<u>Interdependence & Plant reproduction</u> Ecosystems <u>Light & Sound</u> Waves	<u>Earth Structure & Universe</u> The Earth <u>Metal Reactions</u> Reactions
Essential understanding	Essential understanding	Essential understanding
Body systems such as the digestive system and respiratory system work together to allow transport of substances around the body. Health is dependent on the maintenance of these body systems. The periodic table provides chemists with a structured organisation of the known chemical elements from which they can make sense of their physical and chemical properties. Elements are substances made of one type of atom and compounds are formed when two or more types of atom chemically join together.	The interdependence of species in the natural world is essential for maintaining Biodiversity. Organisms interact with each other and their environment for survival. Importance of structural adaptations in plant reproductive systems to allow for fertilisation and seed germination. Plant seeds have many adaptations for dispersal to ensure continuation of species. Light is a transverse wave that travels in a straight line. It can be reflected and refracted under different conditions. Objects can be luminous and non-luminous. Sound travels in longitudinal waves and it can not travel through a vacuum. Sound wave properties determine their pitch and loudness.	The Earth is composed of four layers, the crust, mantle, outer core and inner core. Rocks are formed in different processes to form either igneous, sedimentary or metamorphic rocks. Rocks can change from through the rock cycle. Our Sun is a star and other galaxies also have their own stars. The Sun is the centre of our galaxy and the planets revolve around this. The Earth's rotation and tilt controls the seasons and day length. Chemical reactions always result in the formation of a new substance. Metals and non-metals have different properties. Metals can react with oxygen, non-metals and acids to produce new substances.

Assessment	Assessment	Assessment
Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content. Pupils will complete an unseen, summative written assessment covering key content from the Breathing & Digestion and Periodic Table & Elements units.	Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content. Pupils will complete an unseen, summative written assessment covering key content from the Breathing & Digestion, Periodic Table & Elements, Interdependence & Plant Reproduction, and Light & Sound units.	Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content.
Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Two topics identified on the summative written assessment will be revisited and retaught prior to the second summative assessment in March. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Two topics identified on the summative written assessment will be revisited and retaught. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.

Year 9

Science Curriculum 2023/24

Autumn 1 and Autumn 2	Spring 1 and Spring 2	Summer 1 and Summer 2
Content/ Processes	Content/ Processes	Content/ Processes
Respiration & Photosynthesis Types of Reaction & Chemical Energy Contact Forces & Pressure	Electricity & Magnetism Inheritance & Evolution Earth's Resources & Climate	Key stage 3 to 4 transition project - Ecology
Concepts	Concepts	Concepts
<u>Respiration & Photosynthesis</u> Ecosystems Organisms <u>Types of Reaction & Chemical Energy</u> Reactions Energy <u>Contact Forces & Pressure</u> Forces	<u>Electricity & Magnetism</u> Electromagnetism Energy <u>Inheritance & Evolution</u> Genes Organisms <u>Earth's Resources & Climate</u> The Earth	<u>Ecology</u> Ecosystems Organisms
Essential understanding	Essential understanding	Essential understanding
The dependence of almost all life on Earth on the ability of photosynthetic organisms, such as plants and algae to use sunlight to build organic molecules that are an essential energy store and to maintain the levels of oxygen and carbon dioxide in the atmosphere. Respiration is essential for all life on Earth to enable all other chemical processes in organisms. Chemical reactions always involve the formation of a new substance and physical changes are reversible. Energy changes are an important part of chemical reactions. The interaction of particles often involves	Circuits can be in series or parallel. In a parallel circuit current is added where branches meet and current is a flow of charge. Current is measured in amps. Potential difference is measured in volts. Resistance is a ratio of potential difference to current and is measured in ohms. Insulators have a greater resistance. Conducting materials have a lower resistance. Static electricity occurs through separation of positive or negative charges when objects are rubbed together. This results in a transfer of electrons and forces between charged objects. Magnetism is a non-contact force occurring between magnetic poles. Like poles will repel, opposite poles will attract.	All life on Earth is linked and is interdependent and the study of this is called ecology. Both global and local ecosystems depend on the maintenance of both species and genetic biodiversity. Biodiversity and sustainability is essential for Human existence and Humans can both harm and support biodiversity on both a local and global scale.

transfers of energy. Reactions in which energy is released to the surroundings are exothermic reactions, while those that take in thermal energy are endothermic. Forces arising from the interactions between two objects touching are contact forces. Friction is a contact force which slows down motion and can be reduced by streamlining objects or applying lubrication. Elastic objects can be stretched or squashed up to the elastic limit, after this they will become deformed. Pressure in solids is called stress. Pressure in fluids acts in all directions. Pressure is measured by the ratio of force over area.	Genetic information is transmitted from one generation to the next. Variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection. Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction. The atmosphere of the Earth has changed over time and the three main gases in the current atmosphere are Nitrogen, Oxygen and Carbon dioxide. The greenhouse effect is vital to support life, however an increased level of greenhouse gases (carbon dioxide, methane, water vapour) can lead to global warming. Climate change is an effect of global warming and is impacted by human activity. The Earth has a source of limited resources that need to be conserved. Recycling can be used to reduce the impact of using limited resources.	
Assessment	Assessment	Assessment
Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content.	Pupils will complete one extended response, 6-mark question which will assess key knowledge. Pupils will complete an online, Kerboodle summative assessment at the end of each topic. This will cover key content. Pupils will complete an unseen, summative written assessment covering key content from the Photosynthesis & Respiration, Types of Reaction & Chemical Energy, and Contact Forces & Pressure.	Pupils will complete Biological sampling of a local ecosystem and analyse and evaluate their findings. Pupils will also complete one piece of extended writing which will be assessed for content as well as the quality of written communication.

Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Two topics identified on the summative written assessment will be revisited and retaught prior to the second summative assessment in June. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is set on Kerboodle and is used to reinforce key content taught throughout the topic.

Year 10 Biology			
Autumn 1 and Autumn 2	Spring 1 and Spring 2	Summer 1	Summer 2
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Cell Biology -Eukaryotic and Prokaryotic cells -Cell differentiation -Cell transport	Organisation -Organisation -Digestive system -The heart and circulation -Plant organisation -Plant transport	Homeostasis and response -The nervous system -The endocrine system -Homeostasis in action	Bioenergetics -Respiration -Photosynthesis -Metabolism
Concepts	Concepts	Concepts	Concepts
Organisms	Organisms	Organisms	Ecosystems Organisms
Essential understanding	Essential understanding	Essential understanding	Essential understanding
Cells are the basic building blocks of life. All organisms are made of cells. Cell transport provides the raw materials required for cells to operate, which ultimately allows body systems to run efficiently.	Body systems, such as the transport system, work together to support multi celled organisms. Health is dependent on the maintenance of these body systems.	Several body systems interact to support and maintain life. Body systems must remain balanced to maintain good health.	Metabolic reactions inside living organisms are essential for life. Energy is essential for the efficient running of body systems
Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging.	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging.	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging.	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging.

Pupils will complete an online summative assessment at the end of the cell biology topic. This will cover key content including the required practical.	Pupils will complete an online summative assessment at the end of the organisation topic. This will cover key content including the required practical.	Pupils will also complete an online summative assessment at the end of the homeostasis and response topic. This will cover key content including the required practical. Pupils will complete a summative written assessment covering Cell Biology and Organisation using an unseen past paper.	Pupils will complete an online summative assessment at the end of the bioenergetics topic. This will cover key content including the required practical. Pupils will complete a summative written assessment covering Cell Biology, Organisation and Homeostasis and Response using an unseen past paper.
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.

Year 10 Chemistry				
Autumn 1	Autumn 2	Spring 1 and Spring 2	Summer 1	Summer 2
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Atomic Structure and Periodic Table	Energy Changes	Chemical Changes	Chemical Bonding	Chemical Analysis
Concepts	Concepts	Concepts	Concepts	Concepts
Matter	Reactions	Reactions	Reactions Matter	Matter The Earth Reactions
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
The periodic table provides chemists with a structured organisation of the known chemical elements from which they can make sense of their physical and chemical properties. The historical development of the periodic table and models of atomic structure provide good examples of how scientific ideas and explanations develop over time as	Energy changes are an important part of chemical reactions. The interaction of particles often involves transfers of energy due to the breaking and formation of bonds. Reactions in which energy is released to the surroundings are exothermic reactions, while those that take in thermal energy are endothermic. These interactions between particles can produce	Understanding of chemical changes began when people began experimenting with chemical reactions in a systematic way and organising their results logically. Knowing about these different chemical changes meant that scientists could begin to predict exactly what new substances would be formed and use this knowledge to develop a wide range	Chemists use theories of structure and bonding to explain the physical and chemical properties of materials. Analysis of structures shows that atoms can be arranged in a variety of ways, some of which are molecular while others are giant structures. Theories of bonding explain how atoms are held together in these structures. Scientists use this knowledge of	Analysts have developed a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. Forensic scientists and drug control

Year 10 Chemistry				
new evidence emerges. The arrangement of elements in the modern periodic table can be explained in terms of atomic structure which provides evidence for the model of a nuclear atom with electrons in energy levels.	heating or cooling effects that are used in a range of everyday applications. Some interactions between ions in an electrolyte result in the production of electricity. Cells and batteries use these chemical reactions to provide electricity. Electricity can also be used to decompose ionic substances and is a useful means of producing elements that are too expensive to extract any other way.	of different materials and processes. It also helped biochemists to understand the complex reactions that take place in living organisms. The extraction of important resources from the earth makes use of the way that some elements and compounds react with each other and how easily they can be 'pulled apart'.	structure and bonding to engineer new materials with desirable properties. The properties of these materials may offer new applications in a range of different technologies.	scientists rely on such instrumental methods in their work.
Assessment	Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online summative	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online summative	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of

Year 10 Chemistry				
summative assessment at the end of the atomic structure and periodic table topic. This will cover key content including the required practical.	assessment at the end of the energy changes topic. This will cover key content including the required practical.	assessment at the end of the chemical changes topic. This will cover key content including the required practical.	summative assessment at the end of the chemical bonding topic. This will cover key content including the required practical. Pupils will complete a summative written assessment covering atomic structure and periodic table, energy changes and chemical changes using an unseen past paper.	the chemical analysis topic. This will cover key content including the required practical. Pupils will complete a summative written assessment covering electrolysis, and bonding using an unseen past paper.
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to reinforce key content taught throughout the topic.

Year 10 Chemistry				
the topic.				

Year 10 Physics					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Particle Model	Energy	Electricity	Electricity	Atomic Structure	Magnetism
Concepts	Concepts	Concepts	Concepts	Concepts	Concepts
Matter Forces	Energy	Electromagnetism Energy	Electromagnetism Energy	Forces Matter Waves	Electromagnetism
Essential understanding	Essential	Essential understanding	Essential understanding	Essential understanding	Essential understanding

	understanding				
States of Matter, Density, cooling & heating graphs, gas pressure	Forms of energy, energy changes, thermal energy, Energy resources and global warming	Current, voltage, resistance. Circuits, mains electricity, Energy transfers in appliances and circuits. National grid. Static electricity	Current, voltage, resistance. Circuits, mains electricity, Energy transfers in appliances and circuits. National grid. Static electricity	Structure of an atom, Atomic models, Nuclear Radiation, half-life.Fission and Fusion.	Magnetic Forces & Fields, Electric Motor, Generator, Transformer.
Assessment	Assessment	Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic. This will cover key content including the required practical.	Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic. This will cover key content including the required practical.	Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic. This will cover key content including the required practical.	Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic. This will cover key content including the required practical.	Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic.	Pupils will complete one 6-mark question which will assess key knowledge. Pupils will complete an online summative assessment at the end of the topic.
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework is used to

Homework is used to reinforce key content taught throughout the topic.	Homework is used to reinforce key content taught throughout the topic.	Homework is used to reinforce key content taught throughout the topic.	Homework is used to reinforce key content taught throughout the topic.	reinforce key content taught throughout the topic.	reinforce key content taught throughout the topic.

Year 11 Biology				
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Bioenergetics -Respiration -Photosynthesis -Metabolism	Homeostasis and response -The nervous system -The endocrine system -Homeostasis in action	Inheritance, Variation and Evolution -Variation -DNA -Genome -Evolution and Natural Selection -Classification	Ecology - Organisation of an ecosystem - Interdependence - Material cycling - Human impact on Biodiversity	Revision and preparation for terminal exams. Staff will use assessment data collected across the two years to reteach and revise key content in the run up to the final exams. Staff will focus on content that pupils find the most challenging including and will focus on the use of past exam

				paper questions.
Concepts	Concepts	Concepts	Concepts	Concepts
Ecosystems Organisms	Organisms	Genes Organisms	Ecosystems Organisms	Skills for life Exam techniques Revision techniques
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
Metabolic reactions inside organisms are essential for life. Energy is essential for the efficient running of body systems	Several body systems interact to support and maintain life. Body systems must remain balanced to maintain good health.	A sound understanding of genetics allows for an understanding of how Evolution has led to incredible variation on Earth	The interdependence of species in the natural world is essential for maintaining Biodiversity. Variation of life on Earth needs to be carefully monitored and maintained to ensure Biodiversity is maintained for future generations.	
Assessment	Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online summative assessment at the end of the bioenergetics topic. This will cover key content including the required practical.	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the homeostasis and response topic. This will cover key content including the required practical. Year 11 Mock 1. Pupils	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the inheritance, variation and evolution topic. This will cover key content from the Inheritance, Variation and Evolution topic. - Year 11 Mock 2. Pupils assessed using an unseen past paper (in full).	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete a summative assessment at the end of the ecology topic. This will take the form of an online assessment and will cover key content from the Ecology topic.	- The use of past paper material to prepare pupils for terminal examinations

	assessed using an unseen past paper (in full).			
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework used to revisit content from Year 10 Biology.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson Homework used to revisit content from Year 10 Biology.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson Homework used to revisit content from Year 10 Biology.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson Homework used to revisit content from Year 10 Biology.	Systematically reviewing content delivered during the course as a means of preparation for terminal examinations

Year 11 Chemistry				
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Rates of Reaction Reversible Reaction	Chemical Bonding	Chemical Analysis Quantitative Chemistry	Using Resources	Revision and preparation for terminal exams. Staff will use assessment data collected across the two years to reteach and revise key content in the run up to the final exams. Staff will focus on content that pupils find the most challenging

				including and will focus on the use of past exam paper questions.
Concepts	Concepts	Concepts	Concepts	Concepts
Reactions	Matter Reactions	Matter Reactions	The Earth Reactions	Skills for life Exam techniques Revision techniques
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
Factors which affect the rates of chemical reactions include: the concentrations of reactants in solution, the pressure of reacting gases, the surface area of solid reactants, the temperature and the presence of catalysts. Students should be able to recall how changing these factors affects the rate of chemical reactions.	Chemists use theories of structure and bonding to explain the physical and chemical properties of materials. Analysis of structures shows that atoms can be arranged in a variety of ways, some of which are molecular while others are giant structures. Theories of bonding explain how atoms are held together in these structures. Scientists use this knowledge of structure and bonding to engineer new materials with desirable properties. The properties of these materials may offer new applications in a range of different technologies.	Analysts have developed a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. Forensic scientists and drug control scientists rely on such instrumental methods in their work. Chemists use quantitative analysis to determine the formulae of compounds and the equations for reactions. Given	Industries use the Earth's natural resources to manufacture useful products. In order to operate sustainably, chemists seek to minimise the use of limited resources, use of energy, waste and environmental impact in the manufacture of these products. Chemists also aim to develop ways of disposing of products at the end of their useful life in ways that ensure that materials and stored energy are utilised. Pollution, disposal of waste products and changing land use has a significant effect on the environment, and environmental chemists study how human activity has affected the Earth's natural cycles, and how damaging effects can be minimised.	

		this information, analysts can then use quantitative methods to determine the purity of chemical samples and to monitor the yield from chemical reactions. Chemical reactions can be classified in various ways. Identifying different types of chemical reaction allows chemists to make sense of how different chemicals react together, to establish patterns and to make predictions about the behaviour of other chemicals. Chemical equations provide a means of representing chemical reactions and are a key way for chemists to communicate chemical ideas.		
Assessment	Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online summative assessment at the end of the rates of reaction topic. This will cover key content	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the chemical bonding topic. This will cover key content including the required practical. Year 11 Mock 1. Pupils assessed	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the chemical analysis and quantitative chemistry topics. This will cover key content including required	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete a summative assessment at the end of the using resources topic. This will take the form of an online assessment and will cover key content.	- The use of past paper material to prepare pupils for terminal examinations

including the required practical.	using an unseen past paper (in full).	practicals. Year 11 Mock 2. Pupils assessed using an unseen past paper (in full).		
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson. Homework used to revisit content from Year 10 Chemistry.				Systematically reviewing content delivered during the course as a means of preparation for terminal examinations

Year 11 Physics					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
Magnetism/Electromagnetism	Forces	Forces	Waves	Space	Revision and preparation for terminal exams. Staff will use assessment data collected across the two years to reteach and revise key content in the run up to the final exams. Staff will focus on content

					that pupils find the most challenging including and will focus on the use of past exam paper questions.
Concepts	Concepts	Concepts	Concepts	Concepts	Concepts
Electromagnetism Energy	Forces Energy	Forces Energy	Waves Energy	Space Forces Waves	
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
Magnetic fields, electromagnets, motor effect/Electric Motor/Generator effect/Transformers	Contact, non-contact forces, gravity, speed, motion graphs, acceleration, momentum	Conservation of momentum, Pressure, moments,	Wave properties, transverse & Longitudinal waves, Electromagnetic waves, light waves, refraction, diffraction, lenses.	Solar system, satellites, comets, Theories of universe, Big Bang, Red Shift.	
Assessment	Assessment	Assessment	Assessment	Assessment	Assessment
Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will complete an online summative assessment at the end of the Magnetism topic.	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the Forces topic. This will cover key content	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete an online summative assessment at the end of the Forces topic. This will cover key content	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete a summative assessment at the end of the Waves topic. This will take the form of an online	Pupils will complete one 6-mark question which will assess key knowledge. This will be on content that pupils consistently find challenging. Pupils will also complete a summative assessment at the end of the Space topic. This will take the form of an online	The use of past paper material to prepare pupils for terminal examinations

	including the required practical. Year 11 Mock 1. Pupils assessed using an unseen past paper (in full).	including the required practical.	assessment and will cover key content from the Waves topic. This will cover key content including the required practical.	assessment and will cover key content from the Space topic.	
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	Vocabulary is pre taught and then frequently revisited throughout the topic. Each lesson starts with the recapping of key knowledge which is essential to the current lesson.	