WESTON FAVELL ACADEMY

Long-term planning (LTPs) - Planning how the key concepts, knowledge, skills identified in the Progression map will be delivered termly per year group
Ensuring that end points & NC/spec are covered
Identifying what assessments are planned and when
Allowing for whole academy intent priorities to be planned for

Year 10 Triple

	Autumn 1	Autumn 1	Autumn 1	Autumn 1
Unit title:	B5 Communicable diseases	B6 Preventing and treating disease	B7 Non-communicable disease	C5 Chemical changes
Unit length:	11 lessons	6 lessons	5 lessons	The first 3 lessons of the unit
Key concepts:	Pathogens can be spread The human immune system has lines of defence	The body has natural defences Technology can be used to prevent or reduce the effects of disease	Non communicable diseases have a range of risk factors How risk factors can be reduced	Metals have differing reactivities which can be used in their extraction What Oxidation and reduction mean in context to extraction and electrolysis Acidity, alkalinity (+ bases) and neutralisation linked to ions
Knowledge/ Skills: **Key** **Core** **Powerful**	Key The ways that names pathogens can be transmitted The differences between communicable and non-communicable disease Core Some Pathogens can only be addressed using specific medication Vaccines are constantly under development as are antibiotics and anti-virals Powerful Links to Digestion, non-communicable disease and	Key The role of pathogens in disease (including measuring zones of inhibition as in the required practical). The ways technology can be used to treat disease Core Exercise and drug use can affect health and the body systems Use a range of data on diet, alcohol use, health and disease at all scales The role of obesity on health Powerful Biotic factors in Ecology	Key How exercise and drug use can affect health and the body systems Interpret a range of data on diet, alcohol use, health and disease at all scales Understand the role of obesity on health Core The consequences of imbalances in diet The impact of exercise and drug use the human gas exchange system The effects if recreational drugs on health Powerful Biotic factors in Ecology	Key How to use ionic equations to represent neutralisation How the concentration of hydrogen ions can be used to give a pH value To interpret displacement and acid + metal reactions in terms of oxidation and reduction Core How to use pH to measure acidity and alkalinity About displacement reactions and of acids and metals and how they make a salt and hydrogen That acids + alkalis produce salts and water Combustion and rusting are oxidation reactions That reactions can be endothermic or exothermic Powerful Links to Physics Links to osmosis/diffusion, homeostasis in biology
End points covered:	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	The understanding that different elements interact in predictable ways to form compounds. Appreciating that they do this

	Appreciation of the function of multicellular organisms	Appreciation of the function of multicellular organisms	Appreciation of the function of multicellular organisms	in predictable ways, with predictable energy, "amounts" and rates of reaction
NC/Spec coverage:	2.2.5 , 3.1.1, 1.1.6 , 3.1.2 , 3.1.3, 3.1.4, 3.1.5, 3.3.1, 3.3.2	3.1.7, 3.1.8, 3.1.9, 3.2.1, 3.2.2	2.2.6, 2.2.7	4.1.1, 4.1.2 , 4.1.3 , 4.1.4 , 4.2.1, 4.2.2, 4.2.3, 4.2.4 , 4.2.6
Cross-curricular links:	Links to food hygiene in Catering, H&SC and Child development.	History of medicine in History H&SC, Child development Mathematics for the calculations/ graph work	History of medicine in History H&SC, Child development Mathematics for the calculations/ graph work	Aspects of economic geography
Assessments:	Formally marked work (FMW) Exam	FMW Exam	FMW Exam	FMW Exam
Other academy intent priorities				
Curriculum Careers - Gatsby 4	Microbiologist, nurse, doctor, surgeon, horticulturalist, care worker hygienist, dentist, dental nurse etc.	Nurse, doctor, surgeon, teacher, chef, waiter, food hygienist, microbiologist, forensic scientist	Nurse, doctor, surgeon, teacher, chef, waiter, food hygienist, microbiologist, forensic scientist	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist, nurse, doctor, cleaner
Culturally rich – broadening horizons	Opportunities to: - Discuss health care and healthcare needs in other cultures - Discussion of environments and cities in other countries and how these environments affect disease risk	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discuss health care and healthcare needs in other cultures	Opportunities to: - Discuss health care and healthcare needs in other cultures - Discussion of cuisine and diet in other cultures and how these can influence the risks of communicable disease	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discuss mineral resources and occurrence in different countries linked to their cultural heritage

Year 10			
	Autumn 2	**Autumn 2**	**Autumn 2**
Unit title:	C5 Chemical changes cont'd	C6 Electrolysis	C4 Quantitative chemistry
Unit length:	7 lessons	4 lessons	9 lessons
Key concepts:	Metals have differing reactivities which can be used in their extraction What Oxidation and reduction mean in context to extraction and electrolysis Acidity, alkalinity (+ bases) and neutralisation linked to ions	Ionic liquids and solutions can be split/decomposed using dc current Extraction of metals more reactive than carbon requires electrolysis	Relative atomic/formula mass relates to the mass of a mole of substance Calculations can be used (alongside balanced symbol equations) to calculate moles/ concentration/ atom economy/ yield etc
Knowledge/	Key	Key	Key

Skills: **Key** **Core** **Powerful**	How to use ionic equations to represent neutralisation How the concentration of hydrogen ions can be used to give a pH value To interpret displacement and acid + metal reactions in terms of oxidation and reduction Core How to use pH to measure acidity and alkalinity About displacement reactions and of acids and metals and how they make a salt and hydrogen That acids + alkalis produce salts and water Combustion and rusting are oxidation reactions That reactions can be endothermic or exothermic Powerful Links to Physics Links to osmosis/diffusion, homeostasis in biology	Ions are subject to electrostatic forces when subject to electric fields Elements produced at electrodes depend on reactivity Core How to use ionic equations to represent neutralisation How the concentration of hydrogen ions can be used to give a pH value To interpret displacement and acid + metal reactions in terms of oxidation and reduction Powerful Electrostatic forces in Physics Electrolytes in Biology	How chemical symbols and formulae can be used to represent elements and compounds How to represent reactions using formulae How patterns in reactions are predictable (using the periodic table) The properties of metals and non-metals Conservation of mass How the particle model can be used to illustrate the change in state Core Explain the formulae of compounds Use atomic structure to explain patterns in reactivity Explain the differences between metals and non-metals based upon their atomic structure and bonding Carry out calculations using balanced symbol equations to predict the amounts of reactants and products in a reaction (including moles and concentrations) How to describe changes in state Powerful Concentration / osmosis / diffusion in Biology Pressure in physics
End points covered:	The understanding that different elements interact in predictable ways to form compounds. Appreciating that they do this in predictable ways, with predictable energy, “amounts” and rates of reaction	Appreciate that the evolution of the Earth’s atmosphere has been and remains an ongoing due to a number of processes which provide resources we use today	Use calculations and data analysis
NC/Spec coverage:	4.1.1, 4.1.2 , 4.1.3 , 4.1.4 , 4.2.1, 4.2.2, 4.2.3, 4.2.4 , 4.2.6	4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5 H	AQA spec link: 3.1.2, 3.2.1, 3.2.3, 3.2.4, 3.3.1, 3.3.2, 3.2.5, 3.4, 3.5, 4.2.5
Cross-curricular links:	Aspects of economic geography	Links to Physics	Physics Maths
Assessments:	FMW tasks Exam	FMW tasks Exam	FMW tasks Exam
Other academy intent priorities			

Curriculum Careers - Gatsby 4	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist, nurse, doctor, cleaner	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist
Culturally rich – broadening horizons	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discuss mineral resources and occurrence in different countries linked to their cultural heritage	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discuss culture and heritage of other countries including how electrolysis is used to gold or chrome plate items for particular groups e.g. chrome on motorcycle culture	Opportunities to: - Discuss changing ideas over time and cooperation between scientists of different cultures

Year 10				
	Spring 1	**Spring 1**	**Spring 1**	**Spring 1**
Unit title:	C9 Crude oil and fuels	C10 Organic reactions	C11 Polymers	B13 Reproduction
Unit length:	4 lessons	4 lessons	4 lessons	The first 5 lessons
Key concepts:	Ancient biomass, under anoxic conditions and the correct temperatures and pressures can become hydrocarbons Hydrocarbons are made of H and C only Crude oil is made of alkanes which can be fractionally distilled Cracking can produce higher value and use short chained alkanes from lower value long chains (and produce alkenes)	Organic compounds are divided into homologous series Understand the methods for producing alcohols e.g. ethanol Understand the reactions of homologous series including the carboxylic acids	The application of intermolecular forces to the different types of polymer The prediction of structure for different polymers Explanation of the process of condensation and addition polymerisation (including their recognition)	Variation is caused by genetic differences The differences between sexual and asexual / mitosis and meiosis
Knowledge/ Skills: **Key**	Key Explain how catalysts change the rate of reaction in terms of activation energy and reaction profiles	Key How fractional distillation is used to separate different fractions from the mixture of hydrocarbons in crude oil	Key How fractional distillation is used to separate different fractions from the mixture of hydrocarbons in crude oil	Key The structure of DNA Alleles and their significance Genomes

Core **Powerful**	How fractional distillation is used to separate different fractions from the mixture of hydrocarbons in crude oil The products of complete and incomplete combustion of fuels from crude oil The use of thermal decomposition in cracking How to draw the different homologous series in displayed formulae The different types of bonding between monomers and how these affect the properties of a polymer Core What a catalyst does Simple methods for separating mixtures Some examples of combustion and thermal decomposition reactions The structure of some simple molecular substances That polymers are long molecules and are made of repeated units Powerful Links to particle theory chemistry and physics Links to ecology/ biomass in biology	The products of complete and incomplete combustion of fuels from crude oil The use of thermal decomposition in cracking How to draw the different homologous series in displayed formulae The different types of bonding between monomers and how these affect the properties of a polymer Core Simple methods for separating mixtures Some examples of combustion and thermal decomposition reactions The structure of some simple molecular substances That polymers are long molecules and are made of repeated units Powerful Links to aspects of particle theory in physics	The products of complete and incomplete combustion of fuels from crude oil The use of thermal decomposition in cracking How to draw the different homologous series in displayed formulae The different types of bonding between monomers and how these affect the properties of a polymer Core Simple methods for separating mixtures Some examples of combustion and thermal decomposition reactions The structure of some simple molecular substances That polymers are long molecules and are made of repeated units Powerful Links to DT	Meiosis in gamete production Core The nucleus of animal and plant cells and the DNA structures of bacteria About mitosis and meiosis Reproduction as a process Inheritance and variation How scientific ideas develop Powerful Genetics, DNA, Ecology
End points covered:	Understand that Carbon compounds give rise to homologous series which have specific properties and structures	Understand that Carbon compounds give rise to homologous series which have specific properties and structures	Understand that Carbon compounds give rise to homologous series which have specific properties and structures	Understanding of how organisms interact with each other and with their environment Appreciation of the function of multicellular organisms
NC/Spec coverage:	7.1.1, 7.1.2, 7.1.3, 7.1.4	7.2.1, 7.2.2, 7.2.3, 7.2.4	7.3.1, 7.3.2, 7.3.3 H, 7.3.4	6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.7, 6.1.8, 6.2.4
Cross-curricular links:	Links to sedimentology in geography	Links to sedimentology in geography	Links to DT and aspects of physics	PSHE/lifeskills Child development Psychology
Assessments:	FMW task Exam	FMW task Exam	FMW task Exam	FMW task Exam

Other academy intent priorities				
Curriculum Careers - Gatsby 4	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist, vet, electricity generation engineer, motor engineer, petroleum scientist	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist, vet, electricity generation engineer, motor engineer, petroleum scientist	Chemist, research chemist, forensic scientist, pharmacist, metallurgist, materials scientist, vet, electricity generation engineer, motor engineer, petroleum scientist	Fertility nurse/doctor, counsellor, midwife, zoologist, palaeontologist, ecologist, palaeobiologist
Culturally rich – broadening horizons	Opportunities to: - Discussion of natural resources in different countries and how they are exploited both within and without - Discuss changing ideas over time and cooperation between scientists	Opportunities to: - Discuss changing uses of organic compounds in different cultures e.g. use of ethanol in medicine/embalming in ancient cultures	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discuss the issues for other cultures of the "developed world" sending its non-recyclable plastics to developing countries for "disposal/recycling"	Opportunities to: - Links to cultural ideas of contraception, gender etc

Year 10				
	Spring 2	**Spring 2**	**Spring 2**	**Spring 2**
Unit title:	B13 cont'd	B10 The human nervous system	B14 Variation and evolution	B11 Hormonal coordination
Unit length:	Remaining 5 lessons	6 lessons	7 lessons	The first 6 lessons
Key concepts:	Variation is caused by genetic differences The differences between sexual and asexual / mitosis and meiosis	Nerves carry impulses Nervous response is controlled by the brain / CNS There are different kinds of neurones Neurotransmission is affected by drugs and / or hormones	Genetic diversity /biodiversity drives variation – natural selection and evolution Evolutionary processes have been discovered due to changing understanding over time How humans are able to use variation for their own ends	Hormones are produced by glands and are transported by blood, affecting target organs Hormones control blood sugar, the menstrual cycle and fertility etc. Plants use hormones to allow them to respond to their environment
Knowledge/ Skills: **+ practical time** **Key** **Core** **Powerful**	Key The structure of DNA Alleles and their significance Genomes Meiosis in gamete production Core	Key The similarities and differences between motor and sensory neurones including with regards to their roles About the nervous system and its interrelationships e.g. the eye Core	Key The structure of DNA Alleles and their significance Meiosis in gamete production How information is inherited and make predictions of what will be inherited Selective breeding and genetic engineering	Key The involvement of hormones in reproduction, contraception and assisted fertility Maximising plant growth to provide more resources for a growing population Core

	The nucleus of animal and plant cells and the DNA structures of bacteria About mitosis and meiosis Reproduction as a process Inheritance and variation How scientific ideas develop Powerful Genetics, DNA, Ecology	Basic neurone function and structure That tissues can be organised into organs with specific functions Powerful Homeostasis – Biology Lenses - Physics	Evolution as an example of the progress of scientific thought Core The similarities and differences between mitosis and meiosis The process of reproduction as a process The definition and mechanisms of inheritance and variation Powerful Biology – reproduction, ecology etc	Some of the hormones and their roles in reproduction / puberty The importance of light to plants (for photosynthesis) Powerful Biology – nervous system Physics reaction times/ stopping distances
End points covered:	Understanding of how organisms interact with each other and with their environment Appreciation of the function of multicellular organisms	Appreciation of the function of multicellular organisms	Understanding of how organisms interact with each other and with their environment	Appreciation of the function of multicellular organisms
NC/Spec coverage:	6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.7, 6.1.8, 6.2.4	5.2.1 , 5.2.2	6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5	2.2.1, 4.2.3, 5.3.1, 5.3.2, 5.3.4 , 5.3.5 5.3.6, 5.4.1 , 5.4.2
Cross-curricular links:	PSHE/life skills Child development Psychology	Biology – homeostasis, hormonal vs nervous control, reaction times Physics – lenses, reaction times	Other areas of Biology as above Sports science and health and social care	H&SC, Some links to sports science, Child development, Psychology
Assessments:	FMW tasks	FMW tasks	FMW tasks	FMW tasks
Other academy intent priorities				
Curriculum Careers - Gatsby 4	Fertility nurse/doctor, counsellor, midwife, zoologist, palaeontologist, ecologist, palaeobiologist	Sports science, physiotherapy, nursing, doctors, surgeon, neurologist, psychology, optician	Geneticist, nurse, virologist, immunologist, doctor, fertility nurse, zoologist, ecologist, environmental biologist	Fertility nurse/doctor, nurse, doctor, sports scientist, paediatrician, psychologist, horticulturalist, farmers
Culturally rich – broadening horizons	Opportunities to: - Links to cultural ideas of contraception, gender etc	Opportunities to: - Discuss changing ideas over time and cooperation between scientists	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of the reasons for differing amounts of melanin in different countries	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of contraception and fertility treatment in cultural context

Year 10				
	Summer 1	**Summer 1**	**Summer 1**	**Summer 1**
Unit title:	B11 cont'd	B12 Homeostasis in action	B15 Genetics and evolution	P8 (first 2 lessons) Forces in action
Unit length:	The remaining 4 lessons	5 lessons	10 lessons	
Key concepts:	Hormones are produced by glands and are transported by blood, affecting target organs Hormones control blood sugar, the menstrual cycle and fertility etc. Plants use hormones to allow them to respond to their environment	The internal environment of multicellular organisms needs to be controlled Optimal osmotic pressures and body temperature are vital to survival	Understand the development of understanding Understand fossilisation and its role in understanding evolution Understand and can explain bacterial resistance	Understand the different types of forces as contact and non contact Understand the different types of quantities as vector and scalar Understand turning and resultant forces
Knowledge/ Skills: **Key** **Core** **Powerful**	Key The involvement of hormones in reproduction, contraception and assisted fertility Maximising plant growth to provide more resources for a growing population Core Some of the hormones and their roles in reproduction / puberty The importance of light to plants (for photosynthesis) Powerful Biology – nervous system Physics reaction times/ stopping distances	Key How body temperature and other variables are maintained and why they need to be How excess amino acids are converted to urea to allow for safer storage in the body prior to their removal Core Enzymes and how they are effected by temperature and pH That waste products are produced during digestion that need to be removed from the body Powerful Biology – digestion, osmosis etc Chemistry - Rates	Key The structure of DNA Alleles and their significance Meiosis in gamete production How information is inherited and make predictions of what will be inherited Selective breeding and genetic engineering Evolution as an example of the progress of scientific thought Core The nucleus of animal and plant cells and the DNA structures of bacteria About mitosis and meiosis Reproduction as a process Inheritance and variation How scientific ideas develop Powerful Biology – reproduction, ecology etc	Key The differences between vector and scalar quantities and how these can be represented How calculate resultant force and know how to resolve a force into its perpendicular components The different between speed and velocity and can explain acceleration An understanding of terminal velocity and why falling objects in gases and liquids/solutions reach it Understand conservation of momentum and when to use this rule An understanding of elasticity and how to measure the stiffness of a spring How to calculate weight from given masses and gravitational field strengths Core Forces are measured in Newtons with a Newtonmeter An object is in equilibrium when the forces acting on it are in balance The unit of speed is m's Drag and frictional forces resist the movement of moving objects Whenever objects interact they exert forces on each other

				Tension is the force on a stretched object, more force=greater extension That the weight of an object depends upon the gravitational force exerted upon its mass Powerful Kinetic theory in chemistry
End points covered:	Appreciation of the function of multicellular organisms	Appreciation of the function of multicellular organisms	Understanding of how organisms interact with each other and with their environment	Understanding of how all interactions in the Universe are reliant on forces being exchanged between two or more bodies, and that these force interactions are inextricable from the corresponding energy and momentum conservation within systems
NC/Spec coverage:	2.2.1, 4.2.3, 5.3.1, 5.3.2, 5.3.4, 5.3.5, 5.3.6, 5.4.1, 5.4.2	5.2.4, 5.3.3	6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.6, 6.3.7, 6.4	5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.4
Cross-curricular links:	H&SC, Some links to sports science, Child development, Psychology	H&SC Sports science Child development	Sports science, Health and social care	Sports science Kinetic theory in chemistry Resistance / drag in biology DT
Assessments:	FMW tasks Exam	FMW tasks Exam	FMW tasks Exam	FMW tasks Exam
Other academy intent priorities				
Curriculum Careers - Gatsby 4	Fertility nurse/doctor, nurse, doctor, sports scientist, paediatrician, psychologist, horticulturalist, farmers	Nursing, doctor, pharmacologist, paediatrician, sports scientist, nutritionist, health visitor, vet	Geneticist, nurse, virologist, immunologist, doctor, fertility nurse, palaeontologist, ecologist, zoologist	Engineer, mechanic, sports scientist, safety tester, materials scientist, sedimentologist, physical geographer, surveyor, architect
Culturally rich – broadening horizons	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of contraception and fertility treatment in cultural context	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of the need for different amounts / types of homeostasis in different countries – celebration of difference based on culture/heritage	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of animals and plant life associated with different parts of the world, including humans	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion linked to forces during cultural events, e.g. caber toss, husafell stone etc.

WESTON FAVELL ACADEMY

Year 10			
	Summer 2	**Summer 2**	**Summer 2**
Unit title:	P8 Forces in action cont'd	P9 Motion	P11 Force and pressure
Unit length:	Remaining 7 lessons	4 lessons	4 lessons
Key concepts:	Understand the different types of forces as contact and non-contact Understand the different types of quantities as vector and scalar Understand turning and resultant forces	Motion can be described either in terms of speed (scalar) or velocity (vector) Acceleration is speeding up (or slowing down)	Density, force and area influence pressure The pressure on a surface is an equilibrium if the surface is not moving (paired forces) The difference between weight and mass (and how to calculate them using a GFS of 9.8N/kg)
Knowledge/ **Skills:** **Key** **Core** **Powerful**	Key The differences between vector and scalar quantities and how these can be represented How calculate resultant force and know how to resolve a force into its perpendicular components The different between speed and velocity and can explain acceleration An understanding of terminal velocity and why falling objects in gases and liquids/solutions reach it Understand conservation of momentum and when to use this rule An understanding of elasticity and how to measure the stiffness of a spring How to calculate weight from given masses and gravitational field strengths Core Forces are measured in Newtons with a Newtonmeter An object is in equilibrium when the forces acting on it are in balance The unit of speed is m's Drag and frictional forces resist the movement of moving objects Whenever objects interact they exert forces on each other	Key The differences between vector and scalar quantities and how these can be represented How calculate resultant force and know how to resolve a force into its perpendicular components The different between speed and velocity and can explain acceleration An understanding of terminal velocity and why falling objects in gases and liquids/solutions reach it Understand conservation of momentum and when to use this rule An understanding of elasticity and how to measure the stiffness of a spring How to calculate weight from given masses and gravitational field strengths Core Forces are measured in Newtons with a Newtonmeter An object is in equilibrium when the forces acting on it are in balance The unit of speed is m/s Drag and frictional forces resist the movement of moving objects Whenever objects interact they exert forces on each other	Key The differences between vector and scalar quantities and how these can be represented How calculate resultant force and know how to resolve a force into its perpendicular components The different between speed and velocity and can explain acceleration An understanding of terminal velocity and why falling objects in gases and liquids/solutions reach it Understand conservation of momentum and when to use this rule An understanding of elasticity and how to measure the stiffness of a spring How to calculate weight from given masses and gravitational field strengths Core An object is in equilibrium when the forces acting on it are in balance The unit of speed is m's Drag and frictional forces resist the movement of moving objects Whenever objects interact they exert forces on each other Tension is the force on a stretched object, more force=greater extension That the weight of an object depends upon the gravitational force exerted upon its mass Powerful Kinetic theory in chemistry Resistance / drag in biology

	Tension is the force on a stretched object, more force=greater extension That the weight of an object depends upon the gravitational force exerted upon its mass Powerful Kinetic theory in chemistry	Tension is the force on a stretched object, more force=greater extension That the weight of an object depends upon the gravitational force exerted upon its mass. Powerful Forces and Space in Physics Parts of adaptation, drag in biology Particle theory in chemistry	
End points covered:	Understanding of how all interactions in the Universe are reliant on forces being exchanged between two or more bodies, and that these force interactions are inextricable from the corresponding energy and momentum conservation within systems	Understanding of how all interactions in the Universe are reliant on forces being exchanged between two or more bodies, and that these force interactions are inextricable from the corresponding energy and momentum conservation within systems	Understanding of how all interactions in the Universe are reliant on forces being exchanged between two or more bodies, and that these force interactions are inextricable from the corresponding energy and momentum conservation within systems Understanding of how all matter is made up of tiny particles, significantly smaller than the cells studied in biology. The particles are always moving, have spaces between them, and adding heat to them makes them move faster. How the particles are arranged and move dictates the state and properties of the macroscopic substances we interact with every day.
NC/Spec coverage:	5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.4	5.6.1.1, 5.6.1.2, 5.6.1.3, 5.6.1.4, 5.6.1.5	5.5.1.1, 5.5.1.2, 5.5.2
Cross-curricular links:	Sports science Kinetic theory in chemistry Resistance / drag in biology DT	Sports science Resistance / drag in biology DT	Sports science DT
Assessments:	FMW tasks Exam	FMW tasks Exam	FMW tasks Exam
Other academy intent priorities			
Curriculum Careers - Gatsby 4	Engineer, mechanic, sports scientist, safety tester, materials scientist, sedimentologist, physical geographer, surveyor, architect	Engineer, mechanic, sports scientist, safety tester, materials scientist, sedimentologist, physical geographer, surveyor, architect	Engineer, mechanic, sports scientist, safety tester, materials scientist, sedimentologist, physical geographer, surveyor, architect

Culturally rich – broadening horizons	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion linked to forces during cultural events, e.g. caber toss, husafell stone etc.	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion linked to forces during cultural events, e.g. caber toss, husafell stone etc.	Opportunities to: - Discuss changing ideas over time and cooperation between scientists - Discussion of landmarks in other countries which account for pressure, e.g. dams