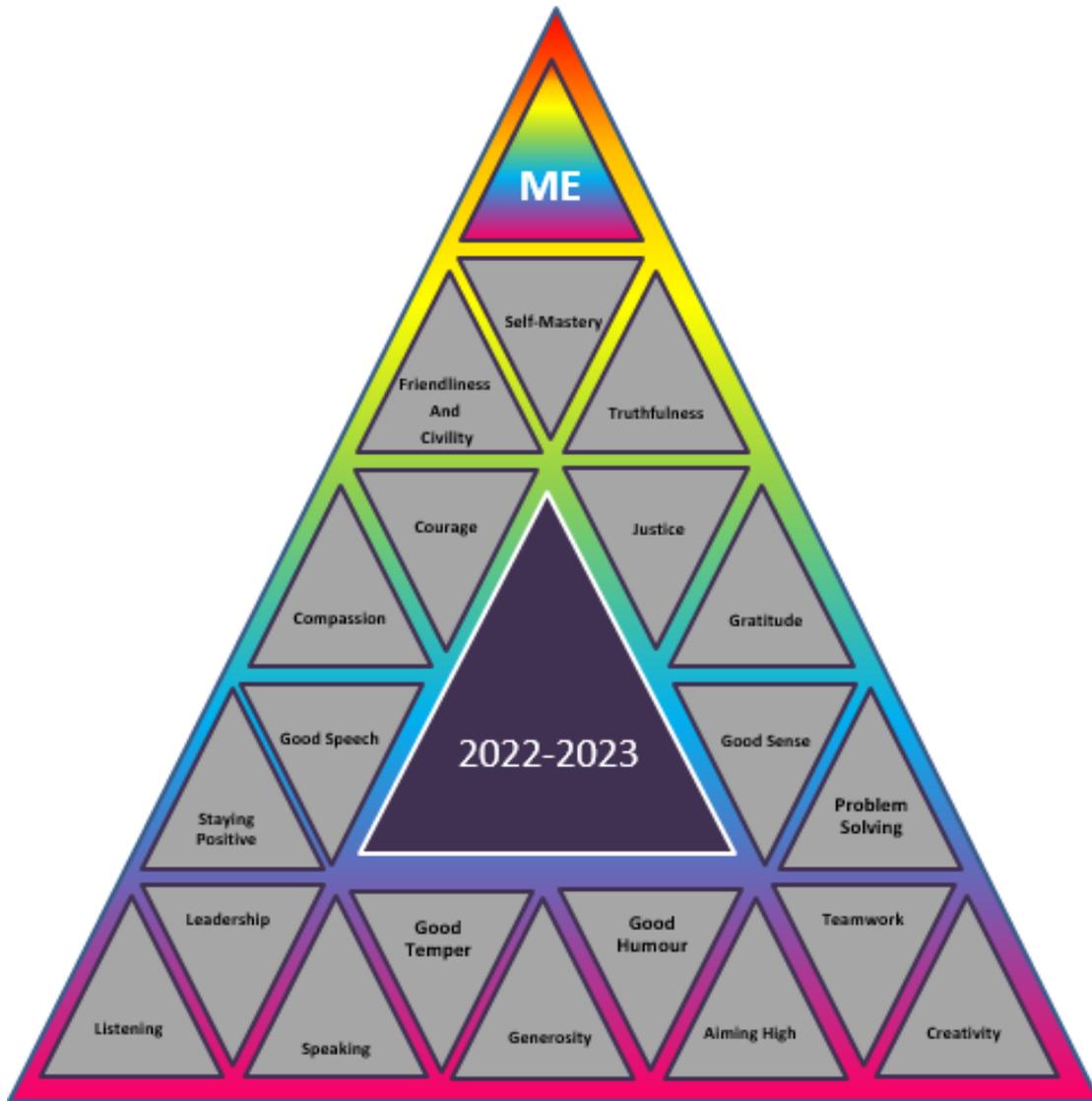


# Year 11 Homework Booklet



I can statements for GCSE courses  
2022-2023

## English 'I Can Statements'

Date	'I Can' statements – Disciplinary Knowledge	Yes	No
12.09.22	Read, understand and respond to texts by maintaining a critical style and develop an informed personal response. I can use textual references, including quotations, to support and illustrate interpretations.		
19.09.22	Analyse the language, form and structure used by a writer to create meanings and effects, using relevant subject terminology where appropriate.		
26.09.22	Show understanding of the relationships between texts and the contexts in which they were written.		
03.10.22	Identify and interpret explicit and implicit information and ideas and select and synthesise evidence from different texts		
10.10.22	Explain, comment on and analyse how writers use language and structure to achieve effects and influence readers, using relevant subject terminology to support their views.		
17.10.22	Compare writers' ideas and perspectives, as well as how these are conveyed, across two or more texts		
31.10.22	Evaluate texts critically and support this with appropriate textual references		
07.11.22	Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences. Organise information and ideas, using structural and grammatical features to support coherence and cohesion of texts		
14.11.22	Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation.		
Date	'I Can' statements – Substantive Knowledge	Yes	No
	<b>Macbeth</b>		
21.11.22	Read, understand and respond to texts using appropriate quotations and maintaining my own critical style.		
28.11.22	Analyse the language, rhyme, rhythm and form used by a writer to create meanings and effects, using relevant subject terminology and connotations.		
05.12.22	Show understanding of the Jacobean England and the message that Shakespeare was trying to convey.		
	<b>Creative Writing</b>		
12.12.22	Explain how the structure of a gothic text can influence its meaning.		
09.01.23	Write my own gothic villain using literary techniques and description.		
16.01.23	Compare different writers' ideas, as well as how these are conveyed.		
	<b>Anthology Poetry and Unseen Poetry</b>		
23.01.23	Write imaginatively using show me sentences to create detailed worlds		
06.03.23	Plan my ideas to structure my work effectively; I can identify strengths and weakness in my work		
13.03.23	Use varying vocabulary (spelled correctly) and correctly used sentence types in my writing.		
20.04.23	Add context (social, historical, political) in to my analysis to explain the world around when the book was written and draw comparisons to my own life.		
27.04.23	Explain in detail the more challenging language techniques a writer uses and explain the effect they have on the reader.		

## French/Spanish 'I Can' Statements

Date	'I Can' statements	Yes	No
<b>Topic Name: Travel and Tourism</b>			
12.09.22	...discuss holiday activities and weather.		
	...revise the present tense of regular verbs.		
	...use verbs of opinion to refer to different people.		
19.09.22	...use the preterite tense.		
	...write a longer text.		
	...book accommodation and deal with problems.		
26.09.22	...use three tenses together.		
	...identify positive and negative opinions.		
<b>Topic Name: School</b>			
03.10.22	...give opinions about school subjects.		
	...compare subjects and teachers.		
	...describe the school uniform and the school day.		
10.10.22	...use negatives.		
	...use phrases followed by the infinitive.		
	...talk about plans for a school exchange.		
17.10.22	...talk about activities and achievements.		
	...understand object pronouns.		
<b>Topic Name: Friends and Family</b>			
31.10.22	...talk about socialising and family.		
	...describe people.		
	...talk about social networks.		
07.11.22	...extend responses by referring to others.		
	...make arrangements.		
	...talk about reading preferences.		
14.11.22	...use a range of connectives.		
	...use <i>etre</i> and <i>avoir</i> .		
<b>Topic Name: Hobbies</b>			
21.11.22	...talk about free time activities.		
	...use stem-changing verbs.		
28.11.22	...talk about TV programmes and films.		
	...talk about what you usually do.		
05.12.22	...talk about sports.		
	...listen for different tenses.		
12.12.22	...use the perfect tense.		
	...talk about who inspires you.		

## French/Spanish 'I Can' Statements

Date	'I Can' statements	Yes	No
<b>Topic Name: Cities</b>			
09.01.23	...talk about the places in a town or city.		
	...ask for and understand directions.		
	...talk about shops.		
16.01.23	...describe the features of a region.		
	...use the future tense.		
	...use demonstrative adjectives.		
23.01.23	...talk about problems in a town.		
	...describe a visit in the past.		
<b>Topic Name: Customs</b>			
30.01.23	...describe mealtimes.		
	...talk about illnesses and injuries.		
	...use quantity expressions.		
06.02.23	...compare different festivals.		
	...order in a restaurant.		
	...use <i>etre</i> to describe a temporary state.		
20.02.23	...talk about a music festival.		
	...saying "before"/"after" doing something.		
<b>Topic Name: Jobs and Careers</b>			
27.02.23	...talk about different jobs.		
	...use words with more than one meaning.		
	...talk about work experience.		
06.03.23	...use the preterite and imperfect together.		
	...talk about languages and travel.		
	...apply for a summer job.		
13.03.23	...write a formal letter.		
	...use different ways to express future plans.		
<b>Topic Name: Global Issues</b>			
20.03.23	...describe types of houses.		
	...talk about the environment.		
27.03.23	...talk about healthy eating.		
	...use the superlative.		
17.04.23	...talk about local actions.		
	...talk about international sporting events.		
24.04.23	...use verbs in the third person plural.		
	...understand equivalent expressions.		

## Biology 'I Can' Statements

Date	'I Can' statements	Yes	No
	<b>Cell Biology</b>		
12.09.22	Explain how main sub cellular structures are related to their function		
	State the organelles in an animal cells and those only in plant cells		
	Explain how main sub cellular structures are related to their function		
	Describe the structure of bacterial cells		
	Compare eukaryotic and prokaryotic cells		
19.09.22	Describe how microscopy techniques have developed over time		
	State magnification and resolution		
	Compare electron and light microscopes		
	Carry out the magnification required practical		
	Recall and apply magnification equation		
	Re arrange microscopy equation		
	Use prefixes centi, milli, micro and nano		
	Express answers in standard form		
26.09.22	Describe what specialised cells are		
	Explain how sperm cells, nerve cells and muscle cells are specialised in animals		
	Explain how root hair cells, xylem and phloem cells are specialised in plants		
	Explain the importance of cell differentiation		
	Explain the difference on how animal cells differentiate compared to plant cells		
	Describe what the cell must do before it can divide		
	Describe the stages of the cell cycle		
	Recognise cells doing mitosis in a microscope picture		
03.10.22	Describe what a stem cell is		
	Explain the role of stem cells in animals and plants		
	Explain the steps in therapeutic cloning		
	Explain the advantages and disadvantages of using therapeutic cloning in animals and plants		
10.10.22	Describe what happens in diffusion		
	Explain how different factors can affect diffusion		
	Explain adaptations for diffusion in animals		
	Calculate and compare surface area to volume ratios		
	Describe what happens in osmosis		
	Explain how to investigate osmosis in plant tissues		
	Describe what happens in active transport		
	Describe situations where active transport occurs		
	Explain why active transport is limited in waterlogged soil		
	<b>Organisation</b>		
17.10.22	Define cell, tissue, organ and organ system		
	Recall organs in the digestive system		
	Describe the roles of organs in the digestive system		
	Explain how to test foods for carbohydrates, fats and proteins		
	Recall where digestive enzymes are made and what they do		
	Describe the lock and key model of enzyme function		
	Describe how to investigate how pH affects amylase		

	Explain how factors can affect enzymes		
31.10.22	Label the structure of the heart		
	Describe the double circulation		
	Explain the structure of arteries, veins and capillaries		
	Label the parts of the blood		
	Describe the jobs of parts of the blood		
	Explain how parts of the blood are adapted for their jobs		
07.11.22	Describe what happens in coronary heart disease		
	Describe treatments for coronary heart disease		
	Evaluate treatments for coronary heart disease		
	Recall lifestyle factors that can affect disease risk		
	Describe diseases that can be affected by lifestyle factors		
	Discuss the cost of non-communicable diseases		
14.11.22	Recall risk factors involved in cancer		
	Describe what cancer is		
	Explain the difference between benign and malignant tumours		
21.11.22	Label the structure of a leaf		
	Describe the roles of tissues in a plant		
	Explain how the structure of plant tissues are related to their jobs		
	Describe what happens in transpiration and translocation		
	Explain how factors affect transpiration		
	Explain how tissues involved in these processes are adapted		
<b>Infection and response</b>			
28.11.22	Recall the symptoms of measles, HIV and TMV		
	Describe how these viruses spread		
	Explain how TMV can affect the growth of plants		
	Recall the symptoms of <i>Salmonella</i> and gonorrhoea		
	Describe how <i>Salmonella</i> and gonorrhoea spread		
	Explain how to control the spread of these bacteria		
05.12.12	Recall the symptoms of rose black spot		
	Describe how to treat rose black spot		
	Explain how rose black spot can affect the growth of plants		
	Recall the symptoms of malaria		
	Describe how malaria is spread		
	Explain how malaria can be controlled		
12.12.22	Recall human non-specific defences		
	Describe how white blood cells protect us		
	Explain how antibodies work		
	Describe what a vaccine is		
	Explain how vaccination works		
	Evaluate the use of vaccination in prevention of disease		
	Describe what antibiotics and painkillers are		
	Describe the problem of antibiotic resistance		
	Explain why it is difficult to develop drugs against viruses		
	Recall where drugs traditionally come from		
	Describe the stages of drug development		
	Explain why double-blind trials are useful		

<b>Bioenergetics</b>			
09.01.23	Recall the equation for photosynthesis		
	Describe what happens in photosynthesis		
	Explain why photosynthesis is an endothermic reaction		
	Describe factors that can affect the rate of photosynthesis		
	Describe how the factors interact and can be limiting factors <b>–HIGHER ONLY</b>		
	Explain graphs of photosynthesis rate involving two or more factors and decide which is the limiting factor <b>–HIGHER ONLY</b>		
	Use inverse square law to explain how light affects it – <b>HIGHER ONLY</b>		
16.01.23	Recall ways that plants use glucose from photosynthesis		
	Explain why other molecules are produced for storage		
	Recall the equations for aerobic and anaerobic respiration		
	Compare the processes of aerobic and anaerobic respiration		
	Explain why respiration is an exothermic reaction		
23.01.23	Describe the effect of exercise on heart rate and breathing rate		
	Explain what happens if the muscles do not get enough oxygen		
	Explain the idea of oxygen debt <b>–HIGHER ONLY</b>		
	Describe what metabolism is		
	List reactions involved in metabolism		
30.01.23	Describe what homeostasis is		
	Recall factors that are kept under control in the body		
	Describe what control systems include		
	Recall the sequence in the reflex arc		
	Describe reflex actions as automatic responses		
	Explain how parts of the reflex arc are adapted for their roles		
	Describe a method for investigating human reaction time		
	Label glands of the human body		
Explain why the pituitary is a ‘master gland’			
06.02.23	Describe what happens when blood glucose is too high		
	Describe what diabetes is		
	Explain the negative feedback involving insulin and glucagon		
20.02.23	Describe the roles of testosterone and oestrogen		
	Describe the roles of hormones in the menstrual cycle		
	Explain how hormones in the menstrual cycle interact		
	Recall methods of contraception		
	Describe how methods of contraception work		
	Evaluate the use of different methods of contraception		
	Describe the roles of FSH and LH as fertility drugs <b>–HIGHER ONLY</b>		
	Describe what happens in In Vitro Fertilisation <b>–HIGHER ONLY</b>		
	Evaluate the treatment of fertility <b>–HIGHER ONLY</b>		
	Explain the roles of thyroxine and adrenaline <b>–HIGHER ONLY</b>		
	Explain how thyroxine levels are controlled by negative feedback <b>–HIGHER ONLY</b>		
<b>Inheritance, variation and evolution</b>			
27.02.23	Describe what happens in sexual and asexual reproduction		
	State the type of cell division involved in both types		
	Recall what type of cell meiosis forms		
	Describe the process of meiosis		

06.03.23	Explain the process of development from fertilisation		
	Describe the structure of DNA		
	Describe what the genome is		
	Discuss the importance of understanding the genome		
	Define key terms related to inheritance		
	Draw and interpret Punnett squares and family trees		
	Deduce the probability of offspring with different phenotypes		
	Describe the inheritance and symptoms of polydactyly		
13.03.23	Describe the inheritance and symptoms of cystic fibrosis		
	Recall the role of sex chromosomes		
	Draw and interpret Punnett squares showing sex inheritance		
	Describe what makes an organism's phenotype		
	Describe how variation occurs		
	Explain the possible effect of mutations on phenotype		
20.03.23	Describe what evolution is		
	Explain the theory of natural selection		
	Describe the evidence for evolution		
	Describe The process of selective breeding		
	Explain examples of selective breeding		
	Evaluate the use of selective breeding		
	Describe what genetic engineering is		
	Explain potential risks and benefits of using genetic engineering		
27.03.23	State and explain how fossils are formed		
	Describe what extinction is		
	Describe factors that can lead to extinction of a species		
17.04.23	Describe what antibiotic resistance is		
	State how to reduce antibiotic resistance		
	Explain how resistant strains form		
	Recall the hierarchy of classification		
	Recall the three-domain system		
	Interpret evolutionary trees		
<b>Ecology</b>			
23.04.23	Describe the levels of organisation in an ecosystem		
	Define the word ecosystem		
	Explain the interdependence in an ecosystem		
	Recall abiotic factors that can affect a community		
	Recall biotic factors that can affect a community		
	Explain how a change in a factor might affect a community		
	Explain how an organism is adapted to its environment		
01.05.22	Describe what extremophiles are		
	Interpret and describe food chains		
	Describe a method for estimating population size of a species		
	Describe how to investigate the effect of a factor on a species		
	Interpret and describe the carbon cycle		
	Interpret and describe the water cycle		
	Explain the role of microorganisms in cycling		

08.05.22	State what biodiversity is		
	Explain why biodiversity is important to the stability of ecosystems		
	Explain how waste, deforestation and global warming have an impact on biodiversity		
	State why pollution is increasing		
	State different types of pollution in water, air and on land		
	Describe the effect of pollution on earth		
15.05.22	Describe methods that humans reduce amount of land available		
	Describe the effect of the destruction of peat bogs		
	Explain how large- scale deforestation has occurred in tropical areas		
	Describe the causes and consequences of global warming		
	Understand that the scientific consensus about global warming is based on reviews of peer reviewed publications		
22.05.22	Explain why evidence is uncertain or incomplete		
	Describe both positive and negative human interactions in an ecosystem		
	Explain the human impact on biodiversity		
	Describe programmes put in place to reduce the negative effects of humans on ecosystems and biodiversity		
	Evaluate given information about methods that can be used to tackle problems caused by human impact on the environment		

## Chemistry 'I Can' Statements

Date	'I Can' statements	Yes	No
<b>Atomic structure and the periodic table</b>			
12.09.22	Define the keywords atom, element and compound		
	Interpret chemical formulae		
	Use names and symbols from the periodic table		
	Name compounds of elements from given formulae or symbol equations		
	Write word equations for reactions		
	Write formulae and balanced chemical equations		
	<b>HIGHER ONLY:</b> Write balanced half equations and ionic equations where appropriate		
	Explain how filtration and crystallisation work		
	Explain how simple distillation works		
	Explain how paper chromatography works		
19.09.22	Describe models of the atom over time		
	Describe the results of Rutherford's alpha particle experiment		
	Explain the conclusions from Rutherford's experiment		
26.09.22	Recall the mass and charges of subatomic particles		
	Calculate the number of each subatomic particle in an atom		
	Calculate the RFM of a compound		
	Draw the electronic structure of an element		
	Describe how Newlands and Mendeleev arranged the elements		
	Describe how elements are arranged in the modern table		
	Explain why elements are placed in groups		
	Recall the charges on ions of metals and non-metals		
	Recall where metals are found in the periodic table		
Explain where they can be found in the periodic table			
03.10.22	Describe the properties of group 0 elements		
	Explain why group 0 elements are unreactive		
	Predict properties of other group 0 elements		
	Describe the properties of the group 1 elements		
	Explain why properties change down group 1		
	Predict properties of group 1 elements		
	Describe the properties of group 7 elements		
	Explain why properties change down group 7		
	Predict properties of group 7 elements		
<b>Bonding, structure and the properties of matter</b>			
10.10.22	Describe how a metal and non-metal bond		
	Represent ionic bonds using a dot and cross diagram		
	Work out the charge on ions in an ionic compound		
	Describe the structure of an ionic compound		
	Describe the limitations of using dot-cross, ball and stick, two- and three-dimension diagrams to represent a giant ionic structure		
	Deduce the formula of an ionic compound from its ions		
	Describe what happens in a covalent bond		

10.10.22	Represent covalent bonding using a dot and cross diagram for the molecules of hydrogen, chlorine, oxygen, nitrogen, hydrogen chloride, water, ammonia and methane		
	Describe the limitations of Describe the limitations of using dot-cross, ball and stick, two- and three-dimension diagrams to represent molecules or giant covalent structures		
	Describe the metallic bond		
	Represent the metallic bond in a diagram		
17.10.22	Draw the particles in solids, liquids and gases		
	Predict the states of substances at different temperatures		
	Explain the different temperatures at which changes of state occur in terms of energy transfers and types of bonding		
	<b>HIGHER ONLY:</b> Explain the limitations of particle theory		
	Describe the giant ionic lattice		
	Describe the properties of ionic compounds		
31.10.22	Describe the properties of small molecules		
	Distinguish between bond and intermolecular force		
	Explain the properties of small molecules		
	Describe the properties of diamond (form of carbon) and silicon dioxide		
	Describe the structure of diamond and silicon dioxide		
	Explain how their properties are linked to their structures		
	Describe the structure of graphene		
	Describe what fullerenes are		
	Explain the properties of graphene and fullerenes		
	Describe the properties of metals		
	Explain the properties of metals		
Explain why alloys are harder than pure metals			
<b>Quantitative chemistry</b>			
07.11.22	Describe the idea of conservation of mass		
	Interpret balanced symbol equations		
	Calculate relative formula masses of substances using the idea of conservation		
	Describe what can cause mass to change in a reaction		
	Explain examples where mass changes in a reaction		
	Calculate mean values		
	Calculate ranges in data		
	Calculate uncertainty		
14.11.22	<b>HIGHER ONLY:</b> Recall what a mole is		
	<b>HIGHER ONLY:</b> Recall the Avogadro constant		
	<b>HIGHER ONLY:</b> Calculate using the moles = mass / RFM equation		
	Interpret the number of moles in balanced symbol equations		
	Calculate the masses of substances in an equation		
	Calculate the masses of substances when given the mass of one		
	<b>HIGHER ONLY:</b> Describe what the words 'limiting' and 'excess' mean		
	<b>HIGHER ONLY:</b> Explain why one reactant is often used in excess		
	<b>HIGHER ONLY:</b> Explain the effect of a limiting reactant on the yield of a product		
	Describe what concentration is		

	Calculate using the concentration = mass / volume equation		
	<b>Chemical changes</b>		
21.11.22	Recall what happens when metals react with oxygen		
	Explain what happens in oxidation and reduction		
	Explain examples where mass changes in a reaction		
	Describe what reactivity is		
	Describe reactions of metals with water and acid and relate these reactivity to the tendency of the metal to form its positive ions		
	Deduce an order of reactivity using practical results		
	Describe how unreactive metals can be extracted		
	Describe how metals less reactive than carbon are extracted		
	Interpret information about metal extraction		
	Describe oxidation and reduction in terms of electrons		
28.11.22	Write ionic half equations for displacement reactions		
	Identify in a given reaction, symbol equation or half equation which species are oxidised and which are reduced		
	Recall the products of a reaction between acid and a metal		
	Deduce the name and formulae of salts formed in the reaction		
	<b>HIGHER ONLY</b> - Explain these as redox reactions		
	Describe what happens in neutralisation reactions between acid and alkalis, bases or carbonates		
	Predict products from these reactions depending on the acid used or the positive ions in the base, alkali or carbonate		
	Deduce formulae of salts formed in these reactions		
	Describe how to make a solid salt from an acid and metal oxide		
	Explain what happens in crystallisation		
Explain why excess solid is added in the reaction			
05.12.22	Recall the ions produced by acids and alkalis in solution		
	Describe the pH scale		
	Explain neutralisation using the ionic equation		
	Describe what a strong acid is		
	Describe what a weak acid is		
Describe the numerical link between pH and H concentration			
12.12.22	Describe what an electrolyte is		
	Explain what happens in electrolysis of molten ionic compounds		
	<b>HIGHER ONLY</b> - Represent reactions at the electrodes using half equations		
	Describe that the discharged ions when an aqueous solution is electrolysed depend on the relative reactivity of the elements involved		
	Deduce the product formed at the cathode depending on the reactivity of the metal and hydrogen		
	Deduce the product formed at the anode depending on the negative ions present		
	<b>HIGHER ONLY</b> - Represent reactions at the electrodes using half equations		
	Recall why some metals are extracted using electrolysis		
	Describe how aluminium is extracted using electrolysis		
	Explain why the electrolyte is a mixture and why the positive electrode must be continually replaced		
Recall products that can be made at the cathode			
Recall products that can be made at the anode			

	Predict and explain products at the cathode and anode		
<b>Energy changes</b>			
09.01.23	Recall what conservation of energy means		
	Describe what happens in an endothermic reaction in terms of energy		
	Describe what happens in an exothermic reaction in terms of energy		
	Recall examples of endothermic reactions		
	Recall examples of exothermic reactions		
	Discuss ways that we can use these reactions		
16.01.23	Describe how to measure temperature change in a reaction		
	Describe variables that can affect temperature change		
	Recall what activation energy is		
	Draw and label reaction profile for exothermic reaction		
	Draw and label reaction profile for endothermic reaction		
	<b>HIGHER ONLY</b> - Recall that bond breaking needs energy		
	<b>HIGHER ONLY</b> - Recall that bond making releases energy		
	<b>HIGHER ONLY</b> - Calculate the bond energies in a substance		
	<b>HIGHER ONLY</b> - Calculate the overall energy change in a reaction		
<b>HIGHER ONLY</b> - Explain the difference in energies in endothermic and exothermic reactions			
<b>The rate and extent of chemical change</b>			
23.01.23	Calculate the mean rate of a chemical reaction		
	Draw and interpret graphs showing rate of reaction		
	Draw tangents to curves to calculate rate of reaction		
	Describe factors that affect rates of reaction		
	Explain how temperature affects rates of reaction		
	Explain how surface area affects rates of reaction		
	Explain how pressure affects rates of reaction		
	Explain how a catalyst affects rates of reaction		
	Describe how to investigate rate of reaction involving a gas		
	Describe how to investigate rate of reaction involving turbidity		
30.01.23	Develop a hypothesis for an investigation		
	Describe what collision theory is		
	Describe what activation energy is		
	Use collision theory to predict how rates of reaction can change		
	Describe what a catalyst is		
	Explain how catalysts increase rates of reaction		
	Interpret reaction profiles showing catalysts		
	Describe what a reversible reaction is		
	Describe what happens at equilibrium		
06.02.23	Explain what Le Chatelier's Principle is		
	Use Le Chatelier's principle to predict the effect of changing concentration on equilibrium		
	Use Le Chatelier's principle to predict the effect of changing temperature on equilibrium		
	Use Le Chatelier's principle to predict the effect of changing pressure on equilibrium		
<b>Organic chemistry</b>			
	Describe what crude oil is		

20.02.23	Describe what a hydrocarbon is		
	Recall names and structures of the first four alkanes		
	Recall how we use the fractions of crude oil		
	Describe how the length of hydrocarbons links to boiling point		
	Explain how fractional distillation works		
	Recall how hydrocarbon properties change with molecule size		
	Describe what happens when hydrocarbons are combusted		
	Write balanced equations for the combustion of hydrocarbons		
	Describe what happens in cracking		
	Describe colour changes when alkenes react with Br water		
Explain why cracking is carried out			
<b>Chemical analysis</b>			
27.02.23	Describe what a pure substance is		
	Describe what a formulation is		
	Use MP and BP data to deduce if a substance is pure or impure		
	Describe what the stationary and mobile phases are		
06.03.23	Explain how paper chromatography separates mixtures		
	Interpret chromatograms		
	Calculate the R <sub>f</sub> of a substance		
	Describe how to use chromatography to investigate a mixture		
13.03.23	Describe the test for hydrogen		
	Describe the test for oxygen		
	Describe the test for carbon dioxide		
	Describe the test for chlorine		
<b>Chemistry of the atmosphere</b>			
20.03.23	Recall the percentages of gases in the atmosphere today		
	Describe how the early atmosphere may have formed		
	Explain the role of the oceans in the early atmosphere		
	Interpret evidence about the early atmosphere		
	Explain how oxygen levels increased		
	Explain how carbon dioxide levels decreased		
27.03.23	Explain how limestone, coal, crude oil and natural gas formed		
	Recall the greenhouse gases		
	Describe the greenhouse effect		
	Explain how human activities are affecting the atmosphere		
	Describe the potential effects of climate change		
	Interpret and evaluate evidence about global climate change		
	Write balanced equations for these precipitate reactions		
	Describe what carbon footprint is		
	Describe actions that can reduce emissions		
	Suggest why it is difficult to put in place actions to reduce them		
	Describe how pollutants are formed		
<b>Using resources</b>			
17.04.23	Recall ways that humans use resources		
	Describe examples of natural products that have been replaced		

	Distinguish between finite and renewable resources		
23.04.23	Describe what potable water is		
	Describe how potable water can be produced		
	Describe how desalination works		
	Give reasons for the steps used to produce potable water		
	Describe a technique for analysing and purifying water		
	State why water needs treating		
	Describe stages in sewage treatment		
	Suggest how easy it is to get potable water from different sources		
17.04.23	Recall other methods of extracting metals		
	Describe how phytomining and bioleaching work		
	Evaluate other methods of extracting metals		
23.04.23	Recall the stages of a life cycle assessment		
	Describe parts of a life cycle assessment for a given product		
	Evaluate a product based on an LCA		
	Recall that many materials are produced from limited resources		
	Describe materials that can be reused and recycled		
	Evaluate ways of reducing the use of limited resources		

## Physics 'I Can' Statements

Date	'I Can' statements	Yes	No
	<b>Forces</b>		
12.09.22	Describe what a scalar quantity is		
	Describe what a vector quantity is		
	Recall examples of contact forces		
	Recall examples of non-contact forces		
	Describe the forces involved in interactions between objects		
	Describe the force of weight		
	Calculate the weight of an object		
	Explain the concept of 'centre of mass'		
19.09.22	Calculate the resultant forces acting on an object		
	Use free body diagrams to describe forces acting on an object		
	Resolve a single force into its components		
	Use vector diagrams to determine a resultant force		
	Describe how a force does work		
	Calculate the work done by a force		
26.09.22	Explain how a force can cause a temperature rise		
	Describe forces involved in stretching, bending or compressing		
	Describe the difference between elastic and inelastic deformation		
	Explain how elastic potential energy becomes stored in a spring		
03.10.22	Describe how to investigate force and extension in a spring		
	Describe the difference between distance and displacement		
	Describe speed as a scalar quantity		
	Recall typical values of speed for a person walking, running and cycling as well as typical values of speed for different types of transportation systems		
	Make measurements of distance and time and calculate speeds of objects using equation		
	Calculate average speed for non-uniform motion		
	Describe velocity as a vector quantity		
10.10.22	Explain the vector-scalar distinction as it applies to displacement, distance, velocity and speed		
	<b>(Higher only)</b> Explain qualitatively, with examples, that motion in a circle involves constant speed but changing velocity		
	Describe the relationship between distance and time and draw distance-time graph		
	Calculate the speed of an object from the gradient of its distance-time graph		
	<b>(Higher only)</b> Draw a tangent and measure the gradient of the distance-time graph at a specific time to calculate speed of accelerating object		
	Calculate acceleration of an object		
	Draw and interpret velocity-time graphs		
	Calculate acceleration and distance travelled on a V-T graph		
Calculate using the uniform acceleration equation			
17.10.22	Explain what happens when an object reaches terminal velocity		
	Describe Newton's three laws		
	Interpret situations involving Newton's laws		
	Describe how to investigate acceleration using an air track		

17.10.22	Describe what makes up a car's stopping distance			
	Describe factors that can affect reaction time			
	Explain factors which can affect a car's stopping distance			
	<b>(Higher only)</b> Calculate momentum			
	<b>(Higher only)</b> Recall that momentum is conserved in a closed system			
	<b>(Higher only)</b> Explain safety features of using the idea of momentum (Physics only)			
<b>Electricity</b>				
31.10.22	Recall the symbols for circuit components			
	Describe what current is			
	Use the charge flow equation			
	Link resistance to current and potential difference			
	Use the $V=IR$ equation			
	Describe how to investigate the effect of length of wire on resistance			
	Describe how to investigate resistors in series and parallel			
	Describe the pattern of current and p.d. in an ohmic conductor			
	Describe the pattern of current and p.d. in a filament lamp			
	Describe the pattern of current and p.d. in a diode			
07.11.22	Describe effects on resistance in a thermistor and LDR			
	Describe how to set up a circuit to investigate I-V characteristics			
	Describe patterns of current, p.d. and resistance in series			
	Calculate total resistance in series			
	Explain what happens to resistance in series			
	Describe patterns of current, p.d. and resistance in parallel			
14.11.22	Calculate current, p.d. and resistance in circuits			
	Recall the frequency and p.d. of mains supply in the UK			
	Explain the difference between direct and alternating p.d.			
	Recall the colours of wires in a three-core cable			
	Describe the roles of wires in a three-core cable			
21.11.22	Explain why a live wire is dangerous			
	Explain how power transfer is related to p.d. and current			
	Calculate power in circuits			
	Describe transfers of energy in appliances			
	Calculate energy transferred in circuits			
	Explain the link between power ratings and energy transfers			
28.11.22	Describe the National Grid			
	Describe the role of transformers			
	Explain why it is an efficient way to transfer energy			
	<b>Particle model of matter</b>			
	05.12.22	Describe how mass is conserved when a substance changes state		
		Explain why changes of state are physical changes		
Describe what internal energy is				
Describe how heating changes internal energy				
Describe how temperature changes depend on specific heat capacity				
Calculate using the specific heat capacity equation				
05.12.22	Define latent heat			
	Calculate using the specific latent heat equation			
	Interpret heating and cooling graphs			

12.12.22	Calculate the density of a material		
	Explain the density of materials using the particle model		
	Describe techniques for determining the density of materials		
09.01.23	Describe the motion of particles in a gas		
	Explain how gas particle motion relates to temp and pressure		
	Explain the relation between gas temperature and pressure		
	Describe what gas pressure is		
	Calculate using the pressure equation		
	Explain how work on a gas increases its temperature		
<b>Atomic Structure</b>			
16.01.23	Label the basic structure of an atom		
	Describe the arrangement of electrons in an atom		
	Explain how electron arrangements may change		
	Recall that all atoms have the same number of protons		
	Describe what an isotope is		
	Calculate the RAM of an element using the masses of isotopes		
23.01.23	Describe models of the atom over time		
	Describe results from Rutherford's alpha particle experiment		
	Explain conclusions from Rutherford's experiment		
30.01.23	Describe the process of radioactive decay		
	Describe what activity is and its measurement		
	Describe the types of nuclear radiation		
	Evaluate the best sources of radiation to use in a situation		
	Interpret nuclear equations		
	Complete gaps in nuclear equations		
	Explain changes in atomic number and mass during decay		
06.02.23	Recall that radioactive decay is random		
	Describe what half-life is		
	Calculate half-life and net decline in activity		
	Describe what radioactive contamination is		
	Describe what irradiation is		
	Compare the hazards of contamination and irradiation		
<b>Energy</b>			
20.02.23	Describe all the changes involved in the way energy is stored when a system changes, for common situations		
	Calculate the changes in energy involved when a system is changed by: <ul style="list-style-type: none"> <li>• Heating</li> <li>• Work done by forces</li> <li>• Work done when current flows</li> </ul>		
	Use calculations to show on a common scale how the overall energy in a system is redistributed when the system is changed		
	Calculate the amount of energy associated with a moving object, a stretched spring and an object raised above ground level		
27.02.23	Calculate kinetic energy of a moving energy by recalling and applying the kinetic energy equation		
	Calculate the elastic potential energy stored in a stretched spring by applying equation given on the physics equation sheet		
	Calculate the gravitational potential energy gained by an object raised above ground level by recalling and applying GPE equation		

06.03.23	Calculate the amount of energy stored in or released from a system as its temperature changes		
	Apply heat capacity equation given on the physics equation sheet		
	Describe how temperature changes depend on specific heat capacity		
	Carry out SHC required practical		
13.03.23	Calculate temperature change and change in thermal energy using the specific heat capacity equation		
	State definition of power		
	Calculate power by recalling and applying both equations of power		
	Give examples that illustrate the definition of power		
	Describe with examples what happens when there is an energy transfer in a closed system		
	Describe with examples how in all system changes energy is dissipated		
	Explain ways of reducing unwanted energy transfers with examples		
20.03.23	State the relationship between thermal conductivity and energy transfer		
	Describe the relationship between the rate of cooling of a building and the thickness/thermal conductivity of its walls		
	Recall and apply the equation for efficiency		
	Calculate and use efficiency values as a decimal or as a percentage		
	State what the main energy resources available for use on Earth are		
	State what a renewable resource is and distinguish between renewable and non – renewable resources		
20.03.23	Compare ways that different energy resources are used and their environmental impact		
	Explain patterns and trends in the use of energy resources		
<b>Waves</b>			
27.03.23	Label a transverse wave		
	Label a longitudinal wave		
	Describe evidence that it is a wave that moves, not matter		
	Calculate using the period = 1 / frequency equation		
	Calculate using wave speed = frequency x wavelength		
	Describe a method to see waves in water and a solid		
	Recall the order of waves in the EM spectrum		
17.04.23	Describe transfers of energy by EM waves		
	Draw ray diagrams to show refraction		
	Explain refraction using a wave front diagram		
	Describe how to investigate the absorption of infrared radiation		
	Describe the hazards of high-energy EM radiation		
	Make conclusions about risks of exposure to radiation		
	Describe ways that we can use different EM waves		
Explain how each type of EM wave is suitable for its use			
<b>Magnetism and electromagnetism</b>			
23.04.23	Describe where magnetic force is strongest on a bar magnet		
	Describe how poles interact		
	Describe the difference between permanent and induced magnets		
	Describe what a magnetic field is		
	Describe the relationship between field strength and distance		
23.04.23	Describe how to plot magnetic field using a compass		

	Draw the magnetic field pattern of a bar magnet		
01.05.22	Describe the effect of current flowing through a wire		
	Describe what a solenoid is		
	Describe what an electromagnet is		
	Explain how solenoids increase the magnetic effect of current		
08.05.22	Describe what the motor effect is		
	Show what Fleming's left-hand rule represents		
	Calculate the force involved in the effect		
	Describe the basis of an electric motor		
	Explain how force causes rotation of a coil in a motor		

## Maths 'I Can' Statements

Date	'I Can' statements	Yes	No
	<b>Indices and Standard Form</b>		
12.09.22	Calculate indices involving multiplication and division		
	Calculate indices involving brackets		
	Calculate indices involving algebra		
	Understand how to simply negative indices		
	Convert numbers into standard form		
19.09.22	Convert numbers into ordinary numbers		
	Multiply numbers in standard form		
	Convert numbers into standard form with negative indices		
	<b>Expression and Formulae</b>		
26.09.22	Write expressions using algebraic notation		
	Simplify expressions		
	Collect like terms with index laws		
03.10.22	Substitute into simple expressions		
	Substitute into expressions involving indices		
	Rearrange formulae		
	Expand 2 separate single brackets and simplify expressions		
10.10.22	Expand double brackets and simplify		
	Factorise into single brackets		
	Factorise into double brackets		
17.10.22	Set up and solve simple equations		
	Solve one-sided equations (unknown on one side)		
	Solve two-sided equations (unknown on both sides)		
	<b>Data</b>		
31.10.22	Find the mean, median, mode and range of a list of data		
07.11.22	Find averages and range from a frequency table		
	Draw scatter diagrams, including drawing a line of best fit to make predictions		
	Recognise correlation of scatter diagrams and know that it does not indicate causation		
	Draw and interpret pie charts		
14.11.22	Draw and interpret stem and leaf diagrams to find averages/range		
	Design questionnaire, data collection sheet/two way table		
	Draw and interpret bar charts and pictograms		
21.11.22	Draw and interpret time series graphs		
28.11.22	Compare data from different representations		

## Maths 'I Can' Statements

Date	'I Can' statements	Yes	No
	<b>Multiplicative Reasoning</b>		
05.12.22	Draw and measure line segments and angles in geometric shapes		
	Construct congruent triangles		
	Construct similar shapes by enlargement		
	Enlarge a shape and describe enlargement including the centre of enlargement		
	Enlarge a shape with a negative scale factor		
12.12.22	Calculate a percentage of a quantity		
	Find the outcome of a given percentage increase or decrease		
09.01.23	Calculate reverse percentage and percentage change		
16.01.23	Solve worded real-life problems involving percentages		
	Calculate simple interest		
23.01.23	Calculate compound interest		
	Solve problems involving speed, distance and time		
	Solve problems involving unit pricing		
	<b>Constructions</b>		
30.01.23	Read and construct scale drawings		
	Measure and write bearings		
	Draw bearings accurately to solve real-life problems		
	Construct triangles using ruler and compasses or protractor		
06.02.23	Construct the perpendicular bisector of a line		
20.02.23	Construct the perpendicular from a point on a line		
27.02.23	Construct the bisector of an angle		
	Know that the perpendicular distance from a point to a line is the shortest distance to the line		
	Draw plans and elevations given 3-D shapes		
	Draw a sketch of the 3-D shape given plans and elevations		
	<b>Sequence, Inequalities, Equation &amp; Proportion</b>		
06.03.23	Understand what is meant by the term inequality and show them on a number line		
	Solve an inequality with terms on both sides		
	Generate and describe sequences using a term-to-term rule		
	Generate sequences using nth term formula by substitution		
	Find the nth term formula of a linear sequence		
13.03.23	Find the nth term formula of patterns		
	Recognise geometric sequences		
	Recognise quadratic sequences		
20.03.23	Identify direct and inverse proportional graphs		
	Form the direct proportion formulae		
	Form the inverse proportion formulae		
	Solve worded problems on direct and inverse proportion		
	<b>Circle, Pythagoras &amp; Prisms</b>		
17.04.23	Identify all the different parts of a circle		
	Calculate the circumference and area of a circle		
	Calculate the area of composite shapes		
	Apply angle facts, triangle congruence and similarity to find missing angles in shapes		
24.04.23	Use Pythagoras theorem to find missing sides in right angled triangles		
01.05.23	Use trigonometry to find missing sides and angles in right angled triangles		

## Maths 'I Can' Statements

Date	'I Can' statements	Yes	No
08.05.23	Use trigonometry to find missing sides and angles in right angled triangles		
15.05.23	Calculate the volume of 3D shapes		
22.05.23	Calculate the surface area of 3D shapes		

## Computer Science 'I Can Statements'

Date	'I Can' statements	Yes	No
<b>1.1 Systems Architecture</b>			
12.09.22	I can explain what actions occur at each stage of the fetch-decode-execute cycle.		
	I can state the role and purpose of each component (ALU, CU, Cache, Registers) and what it manages, stores or controls during the fetch-execute cycle.		
	I can explain the purpose of each register (MAR, MDR, PC, Accumulator) and what it stores (data or address)		
19.09.22	I can explain the difference between storing data and an address.		
	I can explain the effects of changing any of the common characteristics of CPUs (clock speed, cache, number of cores) on system performance.		
	I can explain what embedded systems are, including the typical characteristics and examples of them.		
<b>1.2 Memory and Storage</b>			
26.09.22	I can explain the key characteristics of RAM and ROM.		
	I can explain the need for virtual memory, including the transfer of data between RAM and hard drive.		
	I can explain why computers have secondary storage.		
03.10.22	I can compare advantages and disadvantages (capacity, speed, portability, durability, reliability, cost) of different storage mediums (optical, magnetic, solid state).		
	I can explain why data must be stored in binary format		
	I can convert between binary and denary.		
10.10.22	I can convert between binary and hexadecimal.		
	I can carry out binary shifts and explain the effect on a number.		
	I can explain how characters are stored in binary using ASCII or UNICODE.		
17.10.22	I can explain how the number of characters is limited by the bits available.		
	I can explain that each pixel in an image has a specific colour, represented by a specific code.		
	I can explain the effect on image size and quality when changing colour depth and resolution		
31.10.22	I can explain how metadata stores additional image information (height, width)		
	I can explain how analogue sounds must be stored in binary.		
	I can explain the impact of sample rate (Hz), Duration and Bit Depth on the quality and file size of a sound file.		
07.11.22	I can calculate the file size of sound, image and text files.		
	I can explain the need for and advantages of compression.		
	I can explain the difference between lossy and lossless compression.		
<b>1.3 Networks and Topologies</b>			
14.11.22	I can explain the characteristics of LAN and WAN networks.		
	I can explain the different factors that can affect the performance of a network (number of devices, bandwidth).		
	I can explain the tasks performed by each piece of hardware (WAP, Routers, Switches, NIC, Transmission Media).		
21.11.22	I can explain a DNS's role in the conversion of a URL to an IP address		
	I can explain advantages and disadvantages of the Star and Mesh topologies		
	I can explain advantages and disadvantages of the Cloud.		
28.11.22	I can compare benefits and drawbacks of wired versus wireless connection.		
	I can explain the principle of a (communication) protocol as a set of rules for transferring data		
	I can explain the basic principles of each protocol (TCP/IP, HTTP, HTTPS, FTP, POP, IMAP, SMTP) i.e. its purpose and key features		

## Computer Science 'I Can Statements'

Date	'I Can' statements	Yes	No
<b>1.4 Network Security</b>			
05.12.22	I can demonstrate knowledge of each form of attack (Malware, Social Engineering, Brute-Force attack, Denial of Service, Data interception and theft, SQL injection) including its purpose and how it is used.		
	I can demonstrate knowledge of each prevention method (penetration testing, anti-malware software, firewalls, user access levels, passwords, encryption, physical security) including how it limits the attack.		
<b>1.5 Operating Systems</b>			
12.12.22	I can explain what each function of the operating system does (user interface, memory management, multitasking, peripheral management and drivers, user management, file management.		
	I can explain that data is transferred between devices and the processor.		
09.01.23	I can explain how that computers often come with utility software, and how this performs housekeeping tasks		
	I can explain the purpose of the identified utility software (encryption, defragmentation, data compression) and why it is required		
<b>1.6 Ethical, legal, cultural and environmental impacts of digital technology.</b>			
16.01.23	I can explain the purpose of each piece of legislation (The Data Protection Act 2018, Computer Misuse Act 1990, Copyright Designs and Patents Act 1988) and the specific actions it allows or prohibits.		
	I can discuss the impact of technology on wider society, including ethical issues, cultural issues, environmental issues, privacy issues.		
	Features of open source (providing access to the source code and the ability to change the software) ✓ Features of proprietary (no access to the source code, purchased commonly as off-the-shelf)		

## Computer Science 'I Can Statements'

Date	'I Can' statements	Yes	No
<b>2.1 Algorithms</b>			
23.01.23	I can explain the principles of abstraction, decomposition and algorithmic thinking and how they are used to define and refine problems.		
	I can create algorithms using Pseudocode.		
	I can create algorithms using Flowcharts		
30.01.23	I can trace the values of variables using trace tables.		
	I can apply the linear search to a data set.		
	I can apply the binary search to a <b>sorted</b> data set		
06.02.23	I can apply the bubble sort to a data set.		
	I can apply the merge sort to a data set.		
	I can apply the insertion sort to a data set.		
20.02.23	I can use basic data handling operations (open, read, write, close).		
	I can use SQL to search for data.		
<b>2.2 Programming Fundamentals</b>			
27.02.23	I can explain the use of the three programming constructs (sequence, selection, iteration).		
	I can use variables, constants, operators, inputs, outputs and assignments.		
	I can use the common arithmetic operators (e.g. add, subtract, modulus quotient, exponentiation) and comparison operators (e.g. >)		
06.03.23	I can apply the Boolean operators AND, OR and NOT.		
	I can identify the data types integer, real, Boolean, character, string.		
	I can cast between data types.		
13.03.23	I can carry out basic string manipulation (concatenation, slicing).		
	I can use basic data handling operations (open, read, write, close).		
	I can use SQL to search for data.		
<b>2.3 Producing robust programs</b>			
20.03.23	I can explain the defensive design considerations (anticipating misuse, authentication).		
	I can explain the need for input validation.		
	I can explain the features of maintainable code (use of sub programs, naming conventions, indentation, commenting).		
27.03.23	I can explain the purpose of testing.		
	I can explain the differences between iterative and final/terminal testing.		
	I can explain the difference between syntax and logic errors.		
17.04.23	I can select and use suitable test data (normal, boundary, invalid, erroneous).		
<b>2.4 Boolean Logic</b>			
23.04.23	I can complete truth tables and draw the logic gate symbol for the AND Gate.		
	I can complete truth tables and draw the logic gate symbol for the OR Gate.		
	I can complete truth tables and draw the logic gate symbol for the NOT Gate.		
	I can work with more than one gate in a logic diagram and truth table.		
<b>2.5 Programming languages and Integrated Development Environments</b>			
01.05.22	I can explain the differences between high- and low-level programming languages		
	I can explain the purpose of and need for translators.		
08.05.22	I can explain the characteristics of a compiler and an interpreter.		
	How each of the tools and facilities of an IDE (editors, error diagnostics, run-time environment, translators) can be used to help a programmer develop a program		

## Geography 'I Can Statements'

Date	'I Can' Statements – Disciplinary Knowledge	Yes	No
12.09.22	I can recognise physical and human geography features on 1:25000 and 1:50000 OS maps.		
	I can use statistics (e.g. changing means) to recognise trends over time e.g. population data, development statistics, socio-economic changes		
19.09.22	I can use and interpret a variety of graphs, infographs and charts e.g. choropleth maps to recognise changes over time		
	I can use Geographical Information Systems to recognise changes in human features over time e.g. changing land use in urban areas		
26.09.22	I can understand the kinds of question capable of being investigated through fieldwork and an understanding of the geographical enquiry processes appropriate to investigate these		
	I can understand the range of techniques and methods used in fieldwork, including observation and different kinds of measurement.		
03.10.22	I can process and present fieldwork data in various ways including maps, GIS, graphs and diagrams (hand drawn and computer-generated).		
	I can analyse and explain the data collected in the field using knowledge of relevant geographical case studies and theories.		
10.10.23	I can reflect critically on fieldwork data, methods used, conclusions drawn and knowledge gained.		
Date	'I Can' Statements – Substantive Knowledge	Yes	No
31.10.22	I can recognise that urbanisation is a global process		
	I can recognise that degree of urbanisation varies across the UK		
05.12.22	I can understand why Birmingham (MEDC urban area case study) is influenced by its structure and function		
	I can explain why Birmingham is being changed by movements of people, employment and services		
12.12.22	I can explain why globalisation and economic change creates challenges for Birmingham		
	I can explain why Mexico City (Emerging Economy urban area case study) is influenced by its structure and function		
09.01.23	I can understand why the character of Mexico City is influenced by its fast rate of growth		
16.01.23	I can explain why rapid growth in Mexico City results in a number of challenges that need to be managed		
23.01.23	I can recognise that development measurements vary		
30.01.23	I can understand why the level of development varies globally		
06.02.23	I can understand why uneven global development has had a range of consequences		
20.02.23	I can explain why a range of strategies has been used to try to address uneven development		
27.02.23	I can explain why the level of development of India (Emerging Economy case study) is influenced by its location and context in the world		
06.03.23	I can understand why the interactions of economic, social and demographic processes influence the development of the chosen developing or emerging country		
13.03.23	I can recognise that changing geopolitics and technology impact on India		

## Geography 'I Can Statements'

<b>Date</b>	<b>'I Can' Statements – Disciplinary Knowledge</b>	<b>Yes</b>	<b>No</b>
20.03.23	I can understand why are positive and negative impacts of rapid development for the people and environment of India		
27.03.23	I can recognise that a natural resource is any feature or part of the environment that can be used to meet human needs		
17.04.23	I can understand why the distribution and consumption of natural resources varies on a global and a national scale		
24.04.23	I can recognise that the supply of fresh water supply varies globally		
01.05.23	I can explain why differences between the water consumption patterns of developing countries and developed countries		
08.05.23	I can explain why countries at different levels of development have water supply problems		
15.05.23	I can recognise that meeting the demands for water resources could involves technology and interventions by different interest groups		
22.05.23	I can explain why the management and sustainable use of water resources are required at a range of spatial scales from local to international		

## History 'I Can Statements'

Date	'I Can' Statements – Disciplinary Knowledge	Yes	No
12.09.22	Demonstrate knowledge and understanding of the key features and characteristics of the period studied.		
	Explain and analyse historical events and periods studied using second-order historical concepts.		
19.09.22	Analyse, evaluate and use sources (contemporary to the period) to make substantiated judgements, in the context of historical events studied.		
	Analyse, evaluate and make substantiated judgements about interpretations (including how and why interpretations may differ) in the context of historical events studied		
26.09.22	Analyse, evaluate and make substantiated judgements utilising evidence and weighing different factors against one another		

Date	'I Can' Statements – Substantive Knowledge	Yes	No
03.10.22	Explain the nature and aims of the Treaty of Versailles and determine how sensible it was		
	Explain the extent to which the peacemakers after WW1 achieved their aims		
10.10.22	Explain German objections to the ToV and nature of the Wall Street Crash and Great Depression on European politics		
	Explain the composition of the League of Nations and its purpose		
	Evaluate the successes and failures of the League of Nations		
17.10.22	Explain the Locarno treaties and the Kellogg-Briand Pact		
	Explain the Manchurian and Abyssinian crises and their consequences		
	Explain the failure of the League to avert war in 1939.		
31.10.22	Explain how important early moves were by Hitler in creating tension in the 1930s. Did he intend to cause the Second World War?		
	Explain how the remilitarisation of the Rhineland, Mussolini, the Anti-Comintern Pact escalated tensions in Europe prior to 1939		
07.11.22	Evaluate reasons for and against the policy of appeasement		
	Explain the significance of the Sudeten crisis and Munich and ending of appeasement		
14.11.22	Explain the collapse of the policy of appeasement and the relative importance of the different factors which contributed to the outbreak of war in 1939 – the occupation of Czechoslovakia, the USSR and Nazi-Soviet Pact		
	Explain how the invasion of Poland led to the outbreak of war		
21.11.22	Compare the levels of responsibility for the outbreak of war, including that of key individuals: Hitler, Stalin and Chamberlain.		
	Reach a judgement about whether Neville Chamberlain deserve to be blamed for his policy of Appeasement?		
28.11.22	Reach a clear overall conclusion assessing the importance of differing factors. Such as the Treaty of Versailles, the League of Nations, the Wall Street Crash ,Hitler, Stalin, appeasement and the attitudes of Britain, France and other powers such as the USA and Italy.		
05.12.22	Explain the growth of parliamentary government and the influence of Prussian militarism		
12.12.22	Explain the role of industrialisation and the growth of socialism in Germany		

## History 'I Can Statements'

Date	'I Can' Statements – Substantive Knowledge	Yes	No
09.01.23	Explain the impact the Navy Laws had on the Kaiser's relationship with the government.		
	Explain Germany war weariness in 1918 and its role in the end of monarchy		
16.01.23	Explain financial problems in Germany post-1918 - reparations		
	Explain the impact of the Great Depression in Germany and how this led to hyperinflation		
23.01.23	Explain the significance of the occupation of the Ruhr		
	Explain political unrest in Weimar Germany 1919-23 – the Spartacists, Kapp Putsch and the Munich Putsch		
30.01.23	Explain the extent of recovery during the Stresseman years – the Dawes Plan, Young Plan and role of international agreements of recovery		
	Compare different reasons why extremism emerged in Germany and how the role of the SA and Hitler's appeal became more prominent, 1928-32		
06.02.23	Evaluate how Hitler became Chancellor; a brief narrative of the plotting by key political figures including Hindenburg.		
	Explain how the Reichstag fire was used to promote Hitler's dictatorship		
20.02.23	Explain the significance of the Enabling Act and how this helped Hitler eliminate political opposition in Germany		
27.02.23	Explain how Hitler neutralised opposition in Germany – notably through the Night of the Long Knives		
06.03.23	Reach a judgement of how the the Nazis brought benefits to Germans and Germany, 1933-45.		
13.03.23	Evaluate Nazi policies towards women: the reasons for the policies; the methods used; their level of success and their impact on women.		
20.03.23	Explain Nazi policies towards young people: the reasons, the methods, their level of success and their impact on young people		
27.03.23	Explain Nazi policies towards churches and religion: the reasons, the methods, their level of success and their impact on churches and individuals		
17.04.23	Identify Nazi racial policy and their effects – why and how were minorities persecuted? How and why did this change over time including the Final Solution? How was it possible to carry out persecution out on a large scale?		
24.03.23	Explain the role of Josef Goebbels, the use of Nazi propoganda and their level of success on the German people		
01.05.23	Explain the extent of the police state, Himmler, the SS and Gestapo		
08.05.23	Explain who opposed the Nazis, why and how effectively they were deal with.		

## RS 'I Can Statements'

Date	'I Can' Statements	Yes	No
12.09.22	Understand the nature of God - God as omnipotent, loving and just, and the problem of evil and suffering		
19.09.22	Understand the oneness of God and the Trinity: Father, Son and Holy Spirit		
26.09.22	Explain different Christian beliefs about creation including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3).		
03.10.22	Understand different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell.		
10.10.22	Understand the incarnation and Jesus as the Son of God		
31.10.22	Understand what is meant by the crucifixion, resurrection and ascension of Jesus		
05.12.22	Understand what is meant by sin, including original sin		
12.12.22	Understand what Christians mean by the means of salvation, including law, grace and Spirit		
09.01.23	Understand the role of Christ in salvation including the idea of atonement for Christians		
16.01.23	Understand different forms of worship for Christians, including liturgical, non-liturgical and informal, and how the Bible is used		
23.01.23	Know about different types of private worship and how prayer is significant to Christians, including the Lord's Prayer, set prayers and informal prayer		
30.01.23	Understand the role and meaning of the sacraments, including the meaning of sacrament for Christians, the sacrament of baptism and its significance for Christians, infant and believers' baptism, and different beliefs about infant baptism		
06.02.23	Know about the sacrament of Holy Communion/Eucharist and its significance for Christians, including different ways in which it is celebrated and different interpretations of its meaning		
20.02.23	Understand the role and importance of pilgrimage and celebrations for Christians including: two contrasting examples of Christian pilgrimage: Lourdes and Iona, the celebrations of Christmas and Easter, including their importance for Christians in Great Britain today		
27.02.23	Know about the role of the church in the local and worldwide community; including the role of the Church in the local community, food banks and street pastors		
06.03.23	Understand the place of mission, evangelism and Church growth; including the importance of the worldwide Church, such as working for reconciliation, how Christian churches respond to persecution, the work of one of the following: Catholic Agency For Overseas Development (CAFOD), Christian Aid, Tearfund		
13.03.23	Understand the nature of God - God as omnipotent, loving and just, and the problem of evil and suffering		
20.03.23	Understand the oneness of God and the Trinity: Father, Son and Holy Spirit		
27.03.23	Explain different Christian beliefs about creation including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3).		
17.04.23	Understand different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell.		

## RS 'I Can Statements'

Date	'I Can' Statements	Yes	No
12.09.22	Understand key beliefs of Islam, including - The six articles of faith in Sunni Islam and five roots in Shi'a Islam, and the key similarities and differences		
19.09.22			
26.09.22	Know what Tawhid (the Oneness of God) is, and what it says in the Qur'an Surah 112 about it.		
03.10.22	Understand what Muslims believe about the nature of God: omnipotence, beneficence, mercy, fairness and justice/Adalat in Shi'a Islam, including different ideas about God's relationship with the world: immanence and transcendence		
10.10.22	Explain what Muslims believe about Angels, their nature and role, including Jibril and Mika'il		
31.10.22	Understand predestination and human freedom and its relationship to the Day of Judgement according to Muslims		
05.12.22	Understand Muslim thought about Akhirah (life after death), human responsibility and accountability, resurrection, heaven and hell		
12.12.22	Know about the Muslim attitudes to Risalah (Prophethood) including the role and importance of Adam, Ibrahim and Muhammad		
09.01.23	Understand the Muslim holy books: • Qur'an: revelation and authority • the Torah, the Psalms, the Gospel, the Scrolls of Abraham and their authority		
16.01.23	Know about the imamate in Shi'a Islam: its role and significance		
23.01.23	Understand Muslim attitudes to worship • Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam (students should study the Five Pillars and jihad in both Sunni and Shi'a Islam and the additional duties of Shi'a Islam).		
30.01.23	Understand Shahadah: declaration of faith and its place in Muslim practice.		
06.02.23	Understand Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer: Jummah; key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer		
20.02.23	Understand Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the exceptions and their reasons, and the Night of Power, Qur'an 96:1-5. 16		
27.02.23	Understand Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam		
06.03.23	Understand Hajj: the role and significance of the pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance		
13.03.23	Understand Jihad: different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad		
20.03.23	Explain the main Muslim festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura		
27.03.23	Understand key beliefs of Islam, including - The six articles of faith in Sunni Islam and five roots in Shi'a Islam, and the key similarities and differences		

## Business 'I Can' Statements

Date	'I Can' statements	Yes	No
12.09.22	I can explain why new business ideas come about I can explain how new business ideas come about		
19.09.22	I can explain the impact of risk and reward on a business I can explain the role of business enterprise and the purpose of business		
26.09.22	I can explain the role of an entrepreneur I can identify and understand customer needs		
03.10.22	I can explain the purpose of market research I can explain the methods of market research		
10.10.22	I can use different types of market research I can explain how segmentation is used to target different customers		
17.10.22	I can assess how the competitive environment will impact on a business I can explain how aims and objectives differ		
31.10.22	I can calculate revenue, costs and profit I can calculate interest		
07.11.22	I can draw and interpret break even graphs I can assess the importance of cash to a business		
14.11.22	I can calculate cash-flow I can explain and assess the different methods of finance for a business		
21.11.22	I can describe the different types of ownership I can assess the most appropriate type of ownership		
28.11.22	I can explain and assess the different factors that influence a location decision I can assess the different elements of the marketing mix		
05.12.22	I can assess the impact of technology onto business I can assess the role and importance of a business plan		
12.12.22	I can explain what a stakeholder is and how it has influence I can explain the different types of technology in business		
09.01.23	I can explain and assess the ways in which technology influence business I can explain and assess the ways in which the economy influence business – Unemployment, income and inflation		
16.01.03	I can explain and assess the ways in which the economy influence business – interest rates, taxation and exchange rates		
23.01.23	I can explain and assess the ways in which external influences impact on a business I can assess the different methods of growth and their impact I can assess the different sources of finance		
30.01.23	I can explain the different types of business aims and objectives I can assess the impact of globalisation onto a business		
06.02.23	I can assess how ethical considerations impact on a business I can explain the sections of the design mix		
20.02.23	I can explain and assess the different pricing strategies I can explain how promotion is used as assess when it is appropriate to use different types		
27.02.23	I can explain the different methods of distribution		
06.03.23	I can assess how each element of the marketing mix can influence the other elements I can explain the different production processes and assess the impact of technology on production		
13.03.23	I can interpret bar gate stock graphs and the role of suppliers and how they impact on a business I can explain and assess the importance of quality		
20.03.23	I can explain the sales process		
27.03.23	I can calculate and interpret gross and net profit, gross and net profit margin and ARR		

## Business 'I Can' Statements

Date	'I Can' statements	Yes	No
17.04.23	I can use quantitative data to support, inform and justify business decisions.		
24.04.23	I can explain the different types of organisation structure		
01.05.23	I can explain and assess the different types of working		
08.05.23	I can explain and assess the different types of job roles and responsibilities		
15.05.23	I can explain ad assess the different types of training		
22.05.23	I can explain and assess the different methods of motivation		

## Psychology 'I Can' Statements

Date	'I Can' statements	Yes	No
12.09.22	I can give a definition of independent and dependent variable and know how they can be manipulated.		
19.09.22	I can explain co-variables and how they can be measured.		
26.09.22	I can explain extraneous variables and how they can be controlled, including the use of standardisation		
03.10.22	I can identify different types of interviews and explain their strength and weaknesses.		
10.10.22	I can identify what is a "Case Study"		
17.10.22	I can explain the strength and weakness of the case studies		
31.10.22	I can explain what Descriptive Statistics is I can explain the Measures of Central Tendency		
07.11.22	I can explain how criminality can be explained by operate conditioning		
14.11.22	Understand criminality through social learning		
21.11.22	Explain how criminality can be explained by biological explanations		
28.11.22	Describe personality types		
05.12.22	Evaluate strengths and weaknesses of personality theory as an explanation of criminality		
12.12.22	Explain types of punishments for offenders		
09.01.23	Explain two treatments used to rehabilitate and reduce criminal and antisocial behaviour and increase prosocial behaviour		
16.01.03	Evaluate treatments relating to offences and criminality		
23.01.23	Describe and evaluate Psychological studies including Bandura, Ross and Ross (1961)		
30.01.23	Describe and evaluate Psychological studies including Bandura, Ross and Ross (1961)		
06.02.23	Explain the features, functions and benefits of sleep		
20.02.23	Describe the four stages of sleep		
27.02.23	Explain the sleep cycle		
06.03.23	Give strengths and weaknesses of the sleep cycle explanations		
13.03.23	Explain bodily rhythms of sleep including circadian and ultradian		
20.03.23	Describe hormone function including pineal gland, and melatonin, Understand Zeitgebers, including light in relation to the sleep-wake cycle		
27.03.23	Explain sleep disorders including insomnia		
17.04.23	Describe and evaluate Freud's theory of how dreams access the unconscious		
24.04.23	Explain the manifest and latent content of dreams and dream work		
01.05.23	Describe activation synthesis theory and evaluate		
08.05.23	Describe and evaluate the study 'Little Hans'		
15.05.23	Describe and evaluate the study Siffre – Six months alone in a cave		
22.05.23	Relate my learning to exam knowledge and content		

## Art and Design 'I Can Statements'

Date	'I Can' statements	Yes	No
<b>AO1 - Develop</b>			
12.09.22 19.09.22	Demonstrate independent critical investigation and in-depth understanding of our sources to develop ideas convincingly.		
26.09.22 03.10.22 10.10.22 17.10.22	Demonstrate competent critical investigation and understanding of sources to develop ideas coherently.		
31.10.22 07.11.22 14.11.22 21.11.22	Demonstrate limited critical investigation and understanding of sources to develop ideas simply.		
<b>AO2 - Refine</b>			
28.11.22 05.12.22 12.12.22 09.01.23	Effectively apply a wide range of creative and technical skills, experimentation and innovation to develop and refine work.		
16.01.23 23.01.23 30.01.23 06.03.23	Apply a range of creative and technical skills and some experimentation and innovation to develop and refine work.		
20.02.23 27.02.23 06.03.23 13.03.23	Apply basic creative and technical skills to limited experimentation and innovation.		
<b>AO3 - Record</b>			
20.03.23 27.03.23 17.04.23 24.04.23	Record and use perceptive insights and observations with well-considered influences on ideas.		
01.05.23 08.05.23 15.05.23 22.05.23	Record and use clear observations to influence ideas.		

## Sport Btec 'I Can' Statements

Date	'I Can' statements	Yes	No
12.09.22	Identify a number of sports and physical activity.		
19.09.22	Understand the difference between physical fitness and skill related fitness.		
26.09.22	Identify appropriate training methods to develop both physical and skill related fitness.		
03.10.22	Apply appropriate training techniques to develop specific needs.		
10.10.22	Analysis of data to inform training programmes to help improve specific components of fitness.		
17.10.22	Select appropriate concepts and make recommendations to improve a person's physical and skill related fitness.		
31.10.22	Make judgements about the consequences of effective and ineffective application of techniques, providing solutions, plans and training programmes to improve.		
07.11.22	Compare training methods and approaches. Such as principles of training.		
14.11.22	Use appropriate key words when writing in depth about principles of training and other training		
21.11.22	Explain the components of fitness and how they can be improved.		
28.11.22	Describe the importance of components of fitness when identifying areas for improvement.		
05.12.22	Understand exercise intensity.		
12.12.22	Measure exercise intensity.		
09.01.23	Identify the basics principles of training (FITT).		
16.01.03	Understand the way principles of training (FITT) can impact training programmes.		
23.01.23	Identify and explain additional principles of training, including, progressive overload, adaptation etc.		
30.01.23	Use and set up equipment safely.		
06.02.23	Identify and use the correct training techniques required to improve.		
20.02.23	Explain the requirements for undertaking the fitness training method selected, including warm up and cool down.		
27.02.23	Link each fitness training method to the associated health-related/skill-related component of fitness.		
06.03.23	Highlight advantages and disadvantages for each fitness training method.		
13.03.23	Apply the correct exercise intensity to training methods.		
20.03.23	Change fitness training methods for given situations. Such as client goals/needs		
27.03.23	Identify the appropriate training methods for the following needs; flexibility, strength, muscular endurance and training power, aerobic endurance and speed training,		
17.04.23	Take part in fitness testing to identify areas for improvement.		
24.04.23	Apply the correct training method to improve both health-related and skill-related fitness.		
01.05.23	Be able to safely perform elements from each training method, including the safe use of weights, and circuit training.		
08.05.23	List and explain aerobic endurance training methods.		
15.05.23	Identify speed training techniques and how to complete them.		
22.05.23	Understand the importance of recovering within a training programme.		

## PE 'I Can Statements'

Date	'I Can' statements	Yes	No
12.09.22 19.09.22	Talk about differences between my own and others performance and suggest improvements		
26.09.22	Apply suitable actions, which are appropriate to the task set.		
03.10.22	See how my work is similar to and different to others.		
10.10.22	Use this understanding to improve my performance		
17.10.22	Compare and comment on skills and techniques.		
31.10.22 07.11.22	Analyse ideas used in my own and others work and use this understanding to improve performance		
14.11.22 21.11.22	Analyse and comment on skills and techniques and how they are applied in my own and others work.		
28.11.22	Analyse compositional aspects of performance and suggest ways to improve		
05.12.22 12.05.22	Analyse and comment on how skills, techniques and ideas can be used in my own and others work.		
09.01.23	Analyse a performance and suggest ways to improve it.		
16.01.23	Organise and officiate small sided games in different sports		
23.01.23	Officiate small sided games in at least 3 sports		
30.01.23 06.02.23	Organise, coach and/or choreograph confidently using a good level of communication.		
20.02.23 27.02.23	Analyse and comment on my own and others' work either as an individual or as part of a team		
06.03.23	Plan ways to improve my own and others performance		
13.03.23	Evaluate my own and others' work using ICT as a tool.		
20.03.23 27.03.23	Show that I understand the impact of skills, strategy, tactics and fitness on the quality of performance.		

## Food 'I Can Statements'

Date	'I Can' statements	Yes	No
12.09.22	Understand the importance of health & safety in the food room		
19.09.22	Give some basic rules about hygiene when handling food		
26.09.22	Demonstrate hygiene and safety whilst working in the food room		
03.10.22	Read and interpret a recipe		
10.10.22	Know the principle method of cooking		
17.10.22	Use different methods of cooking		
31.10.22	Know the main food commodities		
07.11.22	Understand different categories of foods		
14.11.22	Understand nutrients in different food types		
21.11.22	know about the different types of kitchen equipment		
28.11.22	Identify different types of kitchen equipment (hand held & other)		
05.12.22	Understand and demonstrate how to safely use different types of kitchen equipment.		
12.12.22	Be able to prepare, cook and present simple dishes.		
09.01.23	How to store different foods		
16.01.03	Understand which storage methods can be used for which food types.		
23.01.23	Explore other methods of food storage e.g. tin foil		
30.01.23	Know where the main commodities can be obtained		
06.02.23	Identify different types of food suppliers		
20.02.23	Analyse the benefits of different suppliers		
27.02.23	Be able to use cooking skills to make home-cooked food that does not use pre-prepared, ready-cooked food		
06.03.23	Select and prepare ingredients for a recipe		
13.03.23	Use cooking skills when following a recipe		
20.03.23	Demonstrate food safety and hygiene throughout the preparation and cooking process		
27.03.23	Understand the value of passing on information about home cooking		
17.04.23	Reflect on own learning about the value of gaining cooking skills		
24.04.23	Identify ways to pass on information about home cooking		
01.05.23	Demonstrate an understanding of the hospitality industry		
08.05.23	Prepare, cook and present a 3 course meal		
15.05.23	Prepare nutritional drinks and smoothies		
22.05.23	Prepare, cook and present soup.		

## DT 'I Can Statements'

Date	'I Can' statements	Yes	No
12.09.22	Carry out a risk assessment		
19.09.22	Explain the function of PPE		
26.09.22	Use tools and machinery safely		
03.10.22	Identify specialised tools and explain their uses		
10.10.22	Identify potential hazards in a workshop		
17.10.22	Explain the importance of working safely in the D & T workshop		
31.10.22	Give reasons for making a prototype		
07.11.22	Identify positive impacts of emerging technologies		
14.11.22	Identify negative impacts of emerging technology		
21.11.22	Describe the term market pull		
28.11.22	Describe the term technology push		
05.12.22	Explain automated manufacture		
12.12.22	Understand the impact of consumer choice on product design		
09.01.23	Explain the concept of product life cycle		
16.01.03	Explain what mass production means		
23.01.23	Explain what automated production is		
30.01.23	Analyse the impact of new technology within production impact industries and enterprise		
06.02.23	Analyse the impact new technology and products have on the environment.		
20.02.23	Discuss how products can be produced in a sustainable manor		
27.02.23	Explain what is meant by sustainability		
06.03.23	Explain how technological developments can help our understanding of different cultures and societies		
13.03.23	Explain why It is important that companies think morally and ethically about the production of goods.		
20.03.23	Highlight the positives and negatives of some of the ways companies provide energy for their factories and products		
27.03.23	Describe energy sources available to us and classify these into non-renewable and renewable sources		
17.04.23	Give examples of fossil fuels and their uses		
24.04.23	Give examples of environmental impacts from using fossil fuels		
01.05.23	Describe the impact of greenhouse gasses on the environment		
08.05.23	Analyse the use of CAD and CAM in design & technology highlighting its importance, and discuss projects that use CAM and CAD confidently.		
15.05.23	Describe the advantages of CAD and CAM		
22.05.23	Describe the disadvantages of CAD and CAM		