

YEAR 9



HESSLE HIGH SCHOOL

CURRICULUM BOOKLET

2023-24

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How to use our Interactive Booklet

This booklet has been designed to be interactive, allowing you to directly open external pages and information.

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Introduction

The Key Stage 3 curriculum in Year 9 is designed to build on the learning experiences that children had in their primary schools and in Year 7 and 8, preparing them for the challenges of GCSE. In addition to learning the specialised subject knowledge required to progress through secondary education, students continue to develop learning, thinking skills and subject specific skills to ensure they are ready for the transition to Key Stage 4. We continue to ensure our curriculum allows time for creativity both in individual subjects and across the curriculum while providing a broad and balanced education.

The purpose of this guide is to promote discussion with your child about their learning.

After a recent review of our curriculum in Key Stage 3 which runs in Years 7 to 9, we aim to ensure that the students have every opportunity to build on progress made in previous years. This guide outlines the Big Questions and the content covered over the academic year. The Big Questions are questions which are enquiry led. They are referred to throughout the unit of work, where students gain the knowledge and skills through the topic to then provide their own answers to these questions.

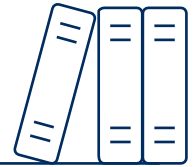
The guide also sets out the syllabus for each Year 9 subject area and it is intended to be a general guide, because the specific level of work and topics covered may vary between students and classes in order to ensure all the students can get the most from their lessons.

We hope this guide is a useful starting point in discussing your child's learning and aids conversations with them about the work they have covered during the term. It also provides more information on the content that is being assessed in the students reports.

If you have any questions about any element of this guide, or our assessment and reporting system, please visit our school website where you will find further information.

We wish all our Year 9 students a happy and successful time as they are guided and supported through their learning in Year 9 at Hessle High School and Sixth Form.

English



TERM 1

Students study Jane Eyre. Investigating all aspects of the novel including Bronte's life; setting; the Reed family; The Red Room; Lowood School; Helen; Mr Brocklehurst and Christianity. In their Mastery Writing lessons they will focus on elements such as subordinating clauses; countable/uncountable nouns; relative clauses and verb forms.

In their Reading for Pleasure lessons their group reads are Gothic Short Stories and A Writer's Cauldron

The Big Questions:

How were children treated in Victorian society? How were orphans treated in Victorian society?

TERM 2

Students will study Romeo and Juliet. The focus is on Shakespearian tragedy. During their studies they will investigate Tragedy; Verona; Prologue; Montagues and Capulets; Romeo; Verona; sonnet; soliloquy

In their Reading for Study lessons they will focus on purpose/audience/form; thesis; structure; letters; articles; speeches and essays.

In their Reading for Pleasure lessons students will continue with their group reads are Gothic Short Stories and A Writer's Cauldron

The Big Questions:

What is tragedy? Why are Romeo and Juliet tragic heroes?

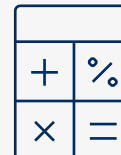
TERM 3

Students will study in this term Poetry Anthology. They will focus on journeys; imagery; dialect; metaphor; extended metaphor; comparison and the physical/emotional/spiritual journeys.

Reading for Pleasure lessons will focus on one of the following books: Nought and Crosses (ab), Sawbones (cd), Divergent (ef), The Hunger Games (gi)

The Big Questions:

Why are journeys important in poetry? How are journeys presented by poets?



TERM 1

Our students will focus on Number and Algebra at the beginning of this term, before moving onto the highest common factor and lowest common multiple, Ratio and Quadratics. Students will estimate answers, checking calculations using approximation and estimation. They will write and order numbers in standard form $A \times 10^n$, where $1 \leq A < 10$ and n is an integer. After understanding the different role of letter symbols in formulae and functions, they will factorise expressions into one bracket. Learners will use a ratio to find one quantity when the difference between them is known. They will also learn to factorise quadratic expressions of the form $x^2 + bx + c$

The Big Questions:

Where do we use Standard Form? What is the difference between expansion and factorisation? Why do we always make quadratics equal to zero?

TERM 2

Students will focus this term on probability, angles, interpreting data, averages and range, and Pythagoras and trigonometry. Students will learn how to estimate the number of times an event will occur, given the probability and the number of trials. They will draw a frequency tree based on given information and use this to find probability and expected outcome. They will understand and use angle properties of parallel lines and derive and use angle facts with irregular polygons. Students will then move onto design and use two-way tables for discrete data and calculate averages and range from a frequency table. Students will find angles of elevation and angles of depression. Finally, students will know and use Pythagoras' Theorem and be able to use trigonometry to find missing sides and angles in triangles.

The Big Questions:

Do the probabilities of events happening always sum to 1? How do we find the angle sum of any polygon? Why do different averages provide a different perspective on the same set of data? How can I tell when to use Pythagoras or trigonometry?

TERM 3

Term 3 focuses on Graphs, Percentages, Constructions and shape and a 'Young Money' module. Students will construct and use frequency polygons to compare sets of data and analyse and compare different representations of data. They will use percentages in real life situations. Your Money Matters covers topics including spending and saving, borrowing, debt, insurance, student finance, and future planning.

The Big Questions:

Can the same data be represented in different ways? Are there any situations where percentages can exceed 100%? What are the differences between constructions and loci? Will I be a saver or a spender? Algebraic fractions and formulae.

Science



BIOLOGY

TERM 1

Students spend the first term focused on cells. They will firstly look at the world under a microscope. They focus on animal and plant cells to begin with. Eukaryotic and prokaryotic cells, DNA and the Genome will also be investigated as well as the structure of DNA. After these first topics, students move into the chemistry of food, catalysts and enzymes and factors affecting enzyme action. This leads into a topic of tissues and organs, and the Human Digestive system. After focusing on how the digestive system works, students will establish what makes digestion efficient. The topic concludes with students looking at the blood, blood vessels, the heart, and breathing and gas exchange

The Big Questions:

What do cells look like under a microscope?, How does a burger get digested? How does exercise affect the body?

TERM 2

Following on from the work covered on the human body, students investigate aerobic respiration, response to exercise, anaerobic respiration, metabolism and the liver. Students will then return to plant cells and investigate specialisation in plant cells, photosynthesis and the rate of photosynthesis. This topic concludes with how plants use glucose and how they make the most of photosynthesis. The second topic of this term investigates the Impact of Change. To begin this topic, students need to understand the human population explosion. Once established, students then learn about land and water pollution, air pollution, deforestation and peat destruction and Global warming, the impact of change, the carbon cycle and rates of decomposition.

The Big Questions:

From seed to tree: How does a plant get bigger?, How are humans destroying the planet? Why are living things important to the environment,

TERM 3

The final term focusses on Communities. The topic begins with the importance of communities and organisms and their environment. After which, students learn of the distribution and abundance of communities and the competition in the animal kingdom before moving onto competition in plants. Adaption, survival and feeding relationships conclude this topic. The final topic is disease: Students study Non-communicable diseases, cancer, smoking and the risk of disease, diet, exercise, alcohol and other carcinogens.

The Big Questions:

Why are living things important to the environment, How can lifestyle choices cause disease?

Science



CHEMISTRY

TERM 1

The year 9 chemistry curriculum is designed to give students a grounding in core chemistry theory, which provides the foundations for the rest of the GCSE Chemistry course. The year starts with a focus on what makes up the world around us - atoms, elements and compounds, which develops the understanding of atoms from year 8. We then move on to practical work on separating mixtures, before delving into the history and structure of atoms and the periodic table.

The Big Questions:

We can change states of matter by heating and cooling, but can they be separated? Is the periodic table designed correctly?

TERM 2

During term 2, students build on their knowledge of atomic structure from term 1 by learning how different atoms combine to form new compounds. The key focus of this term is the structure and bonding of chemical compounds which is a fundamental topic underpinning the GCSE course. There is the opportunity for students to investigate the properties of different compounds through practical work.

The Big Questions:

Why can we ingest salt but not sodium? Diamond, pencil, medicines – same or different?

TERM 3

The final term gives students the chance to apply their knowledge to real world applications such as forensics. There is lots of opportunity for practical work, such as chromatography, which is the first Required Practical of the course and develops skills originally taught in year 7. Students will also expand their understanding of gas tests from year 7. By the end of year 9, students should have a good knowledge of key chemistry concepts, which they will continue to develop into year 10 and year 11.

The Big Questions:

How do skittles produce a rainbow? How clean is the Humber Estuary?

Science



PHYSICS

TERM 1

Year 9 start the big idea of energy and the world around us, considering the conservation and dissipation of energy. They then consider the idea of particles at work and in particular the particle model of matter, building on ideas developed in year 7 and 8, forming a deeper understanding of why substances change state and the physics behind the behaviour of particles.

The Big Questions:

What energy stores and transfers do you experience riding a roller coaster? How can you have both ice and water at the same temperature?

TERM 2

Students start the new year by returning to the idea of energy and the world around us and consider the significance of energy transfer by heating. This topic looks at the ideas behind insulation and will relate this to their own homes. They will then move on to their first topic considering the origins of the universe and study the atomic structure and radioactivity.

The Big Questions:

How can you keep a takeaway meal warm during delivery? Why can we not handle Marie Curies Notebook?

TERM 3

Once students have completed their radiation topic, they will move onto the idea of mechanics and begin to look at forces, in particular how forces allow us to move. Students will study motion, including speed and acceleration and begin to further develop their graph skills and gain confidence in solving more complex mathematic problems.

The Big Questions:

How can a graph tell a story?



TERM 1

In the first term, students will study Natural Forms. They will apply formal elements to drawings from primary and secondary sources. Students will also be introduced to artist research focusing on Andy Goldsworthy. Students will look at using natural materials before moving onto photography, basics of land art arrangements, and colour enhancement/contrast of colour edits.

The Big Questions:

How long should Art last?

TERM 2

In the second term, students develop their photography techniques. This includes using more advanced camera settings and macro lenses and viewfinders. Students will then investigate large scale, acrylic painting based on Georgia O'Keeffe. Students will also experiment with clay, using clay to create vessels.

The second topic in this term will focus on Art History and Art Movements. This topic links to historical events in society and art that changed the world. Students will discuss and analyse key artworks. These include: Historical (Michaelangelo's Last Judgment). Contemporary (Picasso's Guernica and Banksy's Girl with Balloon). A written analysis for each and a reproduction of each will take place.

The Big Questions:

Do you think Contemporary Art is less important than Historical Art?

TERM 3

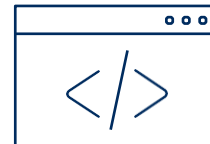
In this final term, Political Propaganda is the main topic. Students will investigate the Singh Twins, looking at fusion between their dual cultural identity British/Indian. They will create a picture that represents their cultural identity. Students will then move onto looking at positive political messages and create an A3 mixed media image inspired by Robert and Roberta Smith's work and their own positive political message.

To conclude the academic year, students will develop a final piece idea, planning and then experimenting with media and techniques. Students can reflect back on their research into the various artist from this project in order to support their final piece.

The Big Questions:

Is Art in a gallery more important than Art in the street?

Computing



TERM 1

Students spend their first term investigating Python programming with sequences of data. They will use an Integrated Development Environment to write and execute a Python program. They will use variables to keep track of information and describe what lists are. They will use iteration, access strings and combine features to develop solutions to meaningful problems. The second topic will focus on media animations. Students will add, delete and move objects, make basic animations and use loop out and face editing. They will add and edit sub lighting to create a 3 – 10 second animation.

The Big Questions:

How to make a picture move? How to get a computer to follow human instructions?

TERM 2

This second term sees students using data manipulation tools to manipulate data in a spreadsheet, to draw conclusions and make recommendations. They will define data structures, use software to visualise data sets and look for patterns or trends. They will take this new knowledge, along with the investigative cycle, to complete a series of tasks. Students will then describe how data cleansing is used and apply data cleansing to a given set of data. Students will then move onto describing how digital images are composed out of individual elements. They will also describe how images can be represented as a sequence of bits, calculate the representation size of a digital image and digital sound.

The Big Questions:

How are audio and image files stored digitally on a computer? How to spot and utilise patterns and trends in data?

TERM 3

The third term will focus on Cybersecurity and physical computing. Students will learn how to explain the difference between data and information. They will identify what happens to data when entered online and the need for the Data Protection Act. Students will recognise how human errors pose security risks to data, will define hacking and explain the need for the Computer Misuse act. They will then move on to identifying common malware threats and compare security threats and explain how networks can be protected. The final topic will allow students to use variables and data structures to keep track of information. Students will use selection and interaction to control program execution flow, locate and correct common syntax errors and describe a micro bit. They will finish by writing a program that use the micro bits, and test and review the program.

The Big Questions:

How to code a physical object? What are the threats to data and systems?

Drama



TERM 1

To begin this year, students will use a historical event to base their drama work on. They will use the events of the Hillsborough Disaster to form a narrative, create and develop characters and to apply a range of challenging drama conventions to their work. Students will explore the performance styles of reportage and will have opportunities to incorporate factual information, write their own material, direct and perform to support the final outcome.

The Big Questions:

How can theatre be used to educate an audience as instead of entertain them?

TERM 2

In this second term, students will focus on dance and physicality in storytelling. Here students will explore the professional work 'Swansong' by Christopher Bruce. This unit will allow students to explore their choreography skills and develop their understanding of physicality – using the body to communicate meaning. They will focus on interpretive and analytical skills and will explore their own interpretations of specific sections of the work, incorporating a chair and a range of choreographic devices.

The Big Questions:

How can we accurately portray historical events through dance?

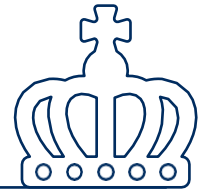
TERM 3

The final term takes in-depth exploration of John Godber's play 'Bouncers' with a focus on advanced vocal and physical skills in keeping with his directorial style. Students will apply their prior knowledge of Godber's style to a new play. They will perform scripted extracts with the option of wearing costumes and using props. Students will also have a range of workshops in the last few weeks of term in preparation for Key Stage 4.

The Big Questions:

Who are the characters that live amongst us and how are they physically and vocally different?

History



TERM 1

Students begin by investigating Russia in the Twentieth Century. They will answer questions such as 'What was life like in Tsarist Russia before 1905?' They will find out why there was an attempted revolution and why Russia went to war in 1914. This continues with the impact of war and why the Bolsheviks won the Civil War (1918-1921). Students will then investigate the power struggle after Lenin's death and propaganda and censorship in Stalin's era. The second topic of the term will look at the Great War. Taking students from the early years of the Nazis and how they rose to power, to the initial reaction to WW2 in Britain. Students will also look at the local perspective of the Hull Evacuees.

The Big Questions:

How was Russia turned upside down in the 20th century? Why was the Great War not actually the 'war to end all wars?'

TERM 2

Students continue to investigate World War II. They will focus on the impact of the war in Hull, opposition to war in Germany, Stalingrad, Dunkirk and Battle of Britain. This topic concludes with D-Day, Hiroshima and why did Germany lose World War II? The second topic of the term is on the Holocaust. Students will establish the medieval origins of Jewish persecution and find out what life was like for Jews before 1933. Students will find out about Nazi racial beliefs and the anti-Jewish laws, culminating in Kristallnacht and the final solution.

The Big Questions:

Which of the turning points of WWII was most significant? How and why could the Holocaust happen?

TERM 3

In the final term of Year 9, students in History will investigate migration in Britain since 1945. They will investigate the attitudes towards homosexuality in 1945 and why there was a Windrush generation? They will find out why was there a growth in immigration in the 1960s and 1970s. The final topic looks at the Cold war and how the Grand Alliance unravelled. Students will establish what the Berlin Crisis in 1948 was about and what happened to Hungary in 1956. This links to the Russia topic at the start of the year and looks at what changed after WWII politically.

The Big Questions:

How have minorities been treated in the UK since 1945? Why was there a Cold War?

Geography



TERM 1

Students in Year 9 begin with an investigation of the contrasting regions of the world, focusing on Russia and the Middle East. They will look at the Physical geography of Russia (landscape, climate, biomes) as well as the Human geography of Russia (population, urbanisation, economy). Students will then investigate Chernobyl and why Russia planted their flag on the seabed of the North Pole. Russia will then be contrasted to that of the Middle East, looking at similar themes.

The Big Questions:

Is the geography of Russia a curse or a benefit? Why is the Middle East an important world region?

TERM 2

Students turn their attention to South America in the second term. They will investigate the location of South America; the physical and human Geography of the region and what life is like in a South American City. Students will also investigate the opportunities and challenges of living on this continent. They will spend a proportion of their lessons looking at life in the Favelas before moving onto look at the rainforests of South America. They will investigate features, tribes, and the deforestation of the rainforest. They will focus on causes, impacts and solutions before embarking on a decision-making activity of whether a road should be built through the forest.

The Big Questions:

Why does the environment change so much?

TERM 3

The final term focuses on the two continents of Antarctica and Asia. Students will begin by looking at Antarctica. They will investigate animal survival in Antarctica, the climate and how tourism has evolved in Antarctica. Students will get the opportunity to investigate the pressing issue of climate change and the impact on this region of the world as well as its future. Students will conclude the term with an investigation of Asia. Here students will investigate the monsoon climate and the frequency of flooding. Finally, students will investigate the diverse population of Asia and how urbanisation is changing the lives of those living on the continent.

The Big Questions:

Is Antarctica the last known wilderness? How is Asia being transformed?

Modern Foreign Language (MFL) - French



TERM 1

Students will first study the topic of Holidays with Mauritius as the focal country. They will be able to say what holidays they go on and learn about Mauritius as a holiday destination. Students will then study the topic of Family and Friends, focusing on Haiti. Here they will learn to converse about the type of person they are and will be able to describe others and what are the traits of a good friend. Their grammar focus will be on time expressions, followed by variety of pronouns.

The Big Questions:

What is there to do on holiday in Mauritius? How would I describe a Haitian family?

TERM 2

In this second term, students continue briefly on the topic of family and friends and consider if they are a good friend. Students then move onto the topic of TV, Cinema and Music, using Canada as the country to develop their understanding further. This topic will focus on types of programmes and their opinions of them. This will include their favourite and their reasoning and opinions on others which they have recently watched, as well as music genres, with a grammar focus of connectives.

The Big Questions:

How would I describe a Haitian family? Is Canada known for its TV, cinema or music?

TERM 3

In term 3, students study technology and social media, focusing in on the customs of Canada even further. They will discuss daily technology with time frames and frequency. They will also discuss their activities on computers and what you did yesterday and their opinions on social media and they can justify it. This will be enhanced through learning about negatives and qualifiers.

The Big Questions:

Is technology used much in Canada?

Music

TERM 1

The students in term 1 will explore the origins and history of Britpop. Students will analyse pieces of Britpop music looking into and learning about the key stylistic techniques. They will research iconic artists and perform some of the stylistic techniques of Britpop, including; Song structure, chords, melody and lyrics.

For the second half of the term students move onto a unit of work called Synthpop. Here, learners explore the origins and history of 1980's synth music. They will learn about the development of the synthesizer as well as researching iconic artists and music of the time. To develop their performance skills students will perform a number of popular riffs which will then be followed by a short composition task where students will work to create their own.

The Big Questions:

Blur vs Oasis?

Is the synthesizer as real instrument?

TERM 2

In the second term students will go back in time to look at the different periods of classical music. They will be exploring Baroque, Classical, Romantic and 20th Century music, learning about famous composers and key stylistic features of each period. Students will also be developing their performance skills by learning a short piece of music written from each musical period.

The Big Questions:

Would music be different today if famous composers such as Mozart and Beethoven didn't exist?

TERM 3

In the last term students will be refining their performance skills. Firstly, they will be returning to complete one final unit on the Ukulele, where students will be combining all of the skills developed in year 7 and 8 to perform different songs by reading and using TAB and chord charts. Then in the final weeks of the year students will be exploring Songs and Arrangements. Students will investigate different types and styles of songs from different decades which will then lead onto performances on different instruments such as keyboard, ukulele, voice and guitar.

The Big Questions:

How can the Ukulele be used to create and perform music from different cultures and genres?

What makes a song popular across different generations and cultures?



Physical Education (PE)



TERM 1

Students will develop their skills and techniques in the following sports: Football, Netball, Basketball and Handball

Boys: Football x 5 weeks, basketball x 5 weeks, Handball x 3 weeks
Girls: Netball x 5 weeks, Handball x 5 weeks, basketball x 3 weeks

The Big Questions:

Are there any transferable tactics and strategies across the invasion games? Is it better to play to win a point or play to make your opponent make a mistake?

TERM 2

Students will develop their skills and techniques in the following sports: Basketball, Fitness, Badminton, Athletics, and Striking and Fielding.

Boys: Handball x 2, Fitness x 5 weeks, Badminton x 5 weeks, Athletics x 1 week
Girls: Basketball x 2 weeks, Badminton x 5 weeks, Fitness x 5 weeks, Striking and Fielding x 1 week

The Big Questions:

What are the fitness requirements to be a successful multi-disciplined athlete such as a heptathlete? Is it better to play to win a point or play to make your opponent make a mistake?

TERM 3

Students will develop their skills and techniques in the following sports: Athletics, Striking and Fielding.

Boys: Athletics x 5 weeks, Striking and Fielding x 6 weeks
Girls: Striking and Fielding x 5 weeks, Athletics x 6 weeks

The Big Questions:

Athletics: What are the fitness requirements to be a successful multi-disciplined athlete such as a heptathlete? What tactics would you use for different innings?

Personal, Social, Health and Economic Education (PSHE)



TERM 1

Pupils continue to develop the skills to equip them with the knowledge and skills to enable them to be responsible and healthy citizens. Their first topic in Year 9 is Money and Me. Students learn how to save, how to budget, and discuss what influences there are on their spending. They also have the opportunity to look into how enterprising they are with a group work activity. The second topic covered in the first term is Sex, sexuality and sexual health. Students learn of the choices around sex before investigating the issues of pornography and sexting and the laws which protect people. Students will also learn about conception, pregnancy and birth.

The Big Questions:

Does money matter? How can I protect myself and others?

TERM 2

In this second term, the students in Year 9 continue to focus on Sex, sexuality and sexual health, finding out about contraception and Sexually Transmitted Diseases. The third topic investigated this academic year is all about Communities. Here pupils learn about 'difference' and how they can value each other. Finally they explore what makes for a successful community.

The Big Questions:

How can I protect myself and others? What makes a successful community?

TERM 3

In the final term, students continue to study Communities. Here they find out what can cause problems in their community. They will also focus on hate crime and radicalisation, before assessing how they can contribute to communities. Students will also learn about the work of voluntary agencies. The final topic in the year is on Planning for the Future. Students assess their aspirations and look at how to plan for their future.

The Big Questions:

Why should I care about my community? How do I plan for my future?

Technology (Textiles)



TERM 1

The first topic students cover in Year 9 Textiles is an introduction to new and emerging technologies. Students will learn about energy generation and storage, developments in new materials and materials and their working properties. This will be linked to prior knowledge on fibres/fabrics. Students will then investigate the environmental impact of fibre processing and sourcing. Learners will investigate the sources and origins of materials and the environmental impact of the fabric and fashion industry, including that of designers.

The Big Questions:

How can we make a difference?

TERM 2

Students will continue to investigate material properties. Here students will continue to look at the industrial and commercial practices. They will look at technical drawings, anthropometrics and ergonomics in relation to the user. Here they will look at inclusive and adaptive design as well as design and making principles (specialist tools and equipment). Students will move onto exploring shaping and forming in the form of design development and sampling.

The Big Questions:

What are our biggest challenges?

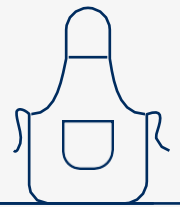
TERM 3

In the final term students will focus on the design and making principles. This will include quality control and assurance production methods, including sustainable methods, energy generation. Students will then learn of the core technical principles (Raw materials, processing of fibres, stock forms and manufacturing/production factors). Students will then realise their design, using a range of appropriate materials/components to produce a basic prototype, analysis, evaluation and testing.

The Big Questions:

What are our biggest challenges?

Technology (Food Preparation and Nutrition)



TERM 1

Students begin the academic year with further exploration of the importance of health and safety, and food hygiene. Next they will investigate microorganisms and the signs of food spoilage and bacterial contamination before then investigating enzymes and their role and function. Finally, they explore properties within food and the factors that influence food choice. Their practical cook will be Savoury Mince. Students will also investigate British and international cuisines and how food labelling and marketing influences, in addition to nutritional age and health - Food choices. Their second practical cook will be Mac'n Cheese.

The Big Questions:

Is functionality the only consideration?

TERM 2

Students will participate in two further practical cooks this term: carrot cake and shortcrust pastry. Students will learn about Micro and Macronutrients. They will learn of the functions of Minerals and fat, soluble and water-soluble vitamins. They will understand the relationship and health risks between diet, nutrition and age. Students will learn about low and high biological value proteins and protein alternatives. They will also investigate saturated and unsaturated fats, carbohydrates, starch and sugars (monosaccharides/disaccharides) and dietary fibre.

The Big Questions:

Is functionality the only consideration?

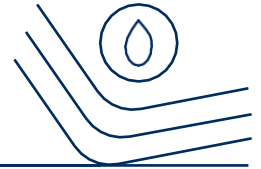
TERM 3

Students will participate in a further cooking practical of Filo Top chicken or ham pie and Jammy Biscuits - Development Trial. This final term, students focus on food provenance. This includes the environmental impact and sustainability of food. They will learn of where and how ingredients are grown, reared and caught. They will explore and investigate the different function and chemical properties of carbohydrates and fats (specifically in pastry). Primary and secondary stages of processing and production will conclude the year. Technological developments to support better health and food production, including the fortification and modification of foods will also be investigated.

The Big Questions:

Does cost reduce the quality?

Technology (Resistant Materials)



TERM 1

Students begin the year with a recap on the essential health and safety requirements. The project students will develop over the course of the year is to build/construct a Phone Holder prototype, working with polymers. Students will look at the design principles, selection of materials, tools and processes. Students further investigate and embed understanding of sources of origins, conversion of polymers, metals/alloys and timbers and materials from original source to stock forms, materials properties of natural, regenerated and synthetic materials. Students will study relevant structures, material suitability and history of construction.

The Big Questions:

Do properties dictate functionality?

TERM 2

Continuing with their phone holder, students will explore and demonstrate a wider range of plastic cutting, shaping, shearing and filing skills. They will also master polymer shaping skills and will explore and demonstrate these processes, techniques and skills. Students will realise their design ideas (prototype construction diary, final prototype fit for purpose). The second half of the term will focus on the second build of a Wooden Pull along mechanism prototype, working with Timbers/Metals and Alloys. Students explore and demonstrate a wide range of timber cutting, shaping, shearing and filing skills. They will also learn of timber shaping skills and will explore and demonstrate these processes, techniques and skills. They will also find out about energy production methods and their environmental impact, designing and its considerations.

The Big Questions:

"Which is the priority...function or aesthetics?"

TERM 3

Students will make their product, selecting from and using specialist tools, techniques, processes, equipment and machinery precisely. Students will explore techniques and skills and look at relative costing of engineering materials. They will investigate systems and approaches: mechanical devices, Cams and followers, pulleys, and rotary systems. Their project will conclude with the finished product being evaluated and a full analysis of the process considered.

The Big Questions:

Does material classification determine success?

Theology



TERM 1

Students begin the year investigating the ideas behind Issues of Relationships. They will begin looking at Love and Diversity. After investigating these important topics, students will then look at how relationships vary, looking at cohabitation, contraception and marriage. Students then investigate the issues of adultery, divorce and then focus their attention on the Christian views of divorce

The Big Questions:

Is there such a thing as a typical family? Should divorced individuals be allowed to remarry in places of worship? What do Christians believe about Issues of Belief?

TERM 2

Students will continue to investigate Issues of Relationships. Students will investigate Homosexuality in the context of religion and then will focus on Christian views of homosexuality. Students will also investigate gender in religion. The second main topic students will investigate is Issues of Life and Death. Here students learn of quality of life, sanctity of life and Christian views on abortion. Students will then investigate the views on animal rights too.

The Big Questions:

Should same sex marriage be allowed in a place of worship? Are men and women equal? Are there different ways of understanding religious scripture? Are the lives of people more valuable than those of animals? What do Christians believe about issues of life and death?

TERM 3

Students complete their year looking at Life and Death. They will focus on the case study of Chico Mendes. They will look at creation and if science and religion oppose each other. Students will then investigate the topic of euthanasia and compare this to the Christian views on this topic. The term concludes with the soul and life after death Judgement, Heaven and Hell, and the Humanist's attitudes to judgement, heaven and hell. This topic is returned to in year 10 as part of the GCSE component 2 on Christian beliefs and teachings.

The Big Questions:

Do humans have an immortal soul? What is Environmental Stewardship? Could life have developed by itself? Should we be able to ask someone to help us die? What do Christians believe about issues of life and death?



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