

Gosfield School

Curriculum Outline

Subject: COMPUTING

Year: 9

Computers are integral to the life of students here at Gosfield. The course is designed to give all the confidence and understanding that they need to use them efficiently and effectively whilst appreciating and understanding how they work and how they are programmed. The course includes ICT components and COMPUTER SCIENCE components with clear progression and challenge in every area.

First Half Term

- E-Safety
- Word Processing skills for GCSE
- File management skills for GCSE
- Organising skills for GCSE
- Managing resources for GCSE
- VLE skills for GCSE

Second Half Term

- Algorithms
- Linear Search
- Bubble Sort

Third Half Term

- Image editing
- PiXLR
- Audio editing
- Audacity

Fourth Half Term

- Spreadsheets
- Databases

Fifth Half Term

- Python
- While loops
- Reading from and exporting to external files.

Sixth Half Term

- Animation:
- Scratch #3
- The Wick Editor
- Three + objects

Gosfield School

Curriculum Outline

Subject: Physical Education

Year: 9

General Information: Year 9 Physical Education focuses on development of advanced skills needed in games
Handball

Skills: passing, dribbling, tackling, shooting

Tactics: basic principles of attack/defence

Game play, rules & scoring

Hockey

Skills: passing, dribbling, tackling, shooting

Tactics: positions & responsibilities, attack & defence strategies

Game play, match analysis, rules, scoring, coaching & refereeing and athletics. Students also apply strategies and tactics to competitive situations. Students are given the opportunity to apply these skills and strategies in competitive games against external opposition.

Autumn Term 1	Autumn Term 2	Spring Term 1
<p><u>Health-Related Fitness</u></p> <ul style="list-style-type: none">• Warm-ups/Cool downs• Fartlek/Interval training• Circuit training <p><u>Athletics</u></p> <ul style="list-style-type: none">• Sprinting technique• Middle-distance technique• Long Jump techniques• Triple Jump techniques	<p><u>Badminton</u></p> <ul style="list-style-type: none">• Skills: different types of shot both forehand and backhand, rallies• Introduce serves• Tactics• Game play (singles and doubles), rules and scoring <p><u>Handball</u></p> <ul style="list-style-type: none">• Skills: passing, dribbling, tackling, shooting• Tactics: basic principles of attack/defence• Game play, rules & scoring	<p><u>Trampolining</u></p> <ul style="list-style-type: none">• Skills: shapes, landings, combinations, twists, turns• Routines• Health & safety issues• Putting out & away trampolines <p><u>Volleyball</u></p> <ul style="list-style-type: none">• Skills: Serve, set shot, volley, smash• Tactics: basic principles of attack/defence• Game play, rules & scoring

<p>Spring Term 2</p> <p><u>Basketball</u></p> <ul style="list-style-type: none"> • Skills: passing, dribbling, shooting, heading, creating space, movement on and off ball • Tactics: principles of attack/defence; set plays • Game play, rules and scoring <p><u>Alternative Sports</u> (Hockey, Dodgeball, Gaelic Football etc)</p> <ul style="list-style-type: none"> • Skills: passing, dribbling, shooting, heading, creating space, movement on and off ball • Tactics: principles of attack/defence; set plays • Game play, rules and scoring 	<p>Summer Term 1</p> <p><u>Athletics</u></p> <ul style="list-style-type: none"> • Skills; intro & develop running throwing & jumping skills • Measurement: times & distances • Tactics • Competitions 	<p>Summer Term 2</p> <p><u>Tennis</u></p> <ul style="list-style-type: none"> • Skills: Forehand and back hand ground strokes volleys, serving, court movement • Rallying • Game play, rules & scoring <p><u>Cricket/Rounders</u></p> <ul style="list-style-type: none"> • Skills: throwing, catching, batting, bowling, and fielding • Tactics • Game play, rules and scoring
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Gosfield School
Curriculum Outline

Subject: Design & Technology

Year: 9

General Information: Design and Technology at Gosfield School is taught to all students from Years 3 - 9. This scheme of work has been developed to enable students to learn how to work safely and to apply their knowledge of CAD/CAM, Research techniques, communication skills and User centred design. In addition, they will consider the factors that affect design decisions such as the environment and modern materials.

Design technology, or DT, is the study, design, development, application, implementation, support and management of computer and non-computer-based technologies for the express purpose of communicating product design intent and constructability.

The core themes taught under the Design and Technology umbrella are:

1. Problem Solving
2. Communication
3. Evaluation Skills

The aims of Design and Technology

- * Students will deepen their knowledge and understanding of the design process
- * Students will further develop research techniques;
- * Students will develop the creative, technical and practical expertise needed to perform tasks confidently
- * Students will build and apply a repertoire of knowledge, understanding and skills in order to design and make high quality products for a wide range of users;
- * Students will evaluate and test their ideas and products and the work of others.

Lessons will be weekly with practical tasks supporting theory work covered in each session.

<p>Autumn Term 1</p> <p>Health and Safety</p> <ul style="list-style-type: none"> • Safe working practices • Desk tidy/Mobile phone stand. • Specifications and evaluations 	<p>Autumn Term 2</p> <p>Systems and Controls</p> <ul style="list-style-type: none"> • Arduino programming • User centered design 	<p>Spring Term 1</p> <p>Graphics</p> <ul style="list-style-type: none"> • Steady Hand Game • Design techniques • CAM Manufacturing processes
<p>Spring Term 2</p> <p>Textiles</p> <ul style="list-style-type: none"> • Messenger Bag • Design choices • Safe machine operation 	<p>Summer Term 1</p> <p>Speakers</p> <ul style="list-style-type: none"> • Brief • Research • Specification • Design 	<p>Summer Term 2</p> <p>Speakers</p> <ul style="list-style-type: none"> • Planning • Manufacture • Evaluation

Gosfield School
Curriculum Outline

Subject: English

Year: 9

General Information:

Throughout Year 9, students will build progress through integrating the central skills of reading, writing and speaking/listening. Some units place more of an emphasis on a particular skill, but balance is achieved through the combination of units across the year. The combination of these skills in Year 9 provides a seamless transition to GCSE, with a focus on being able to:

- Demonstrate sustained, critical analysis of how writers use language to achieve effects, shape meaning and influence the reader
- Make comparisons between how and why writers' ideas and perspectives are conveyed
- Use a range of devices in their imaginative writing
- Refine their spelling, punctuation and grammar skills
- Present their ideas to a class and participate in class discussion.

All Year 9 students study English for 9 lessons per fortnight.

<p>Autumn Term 1</p> <p>Prose: Students will be taught to:</p> <ul style="list-style-type: none"> • Know the purpose, audience for and context of the writing and to draw on this knowledge to support comprehension • Analyse the language, form and structure used by a writer to create meanings and effects <p>Assessment Reading - essay analysing a key theme from the novel Writing - creative writing from the point of view of a character</p> <p>Covid Catch Up: Topic brought forward to monitor skills taught during lockdown. Frequent opportunities for analytical writing. Targeted group interventions in class.</p>	<p>Autumn Term 2</p> <p>Non-Fiction and Transactional Writing Students will be taught to:</p> <ul style="list-style-type: none"> • Evaluate texts critically and support this with appropriate textual references • Organise information and ideas, using structural and grammatical features to support coherence and cohesion of texts • Write for a range of purposes <p>Assessment Reading - analysis of a non-fiction extract focusing on language and structural techniques Writing - create a piece for a specific audience and purpose</p> <p>Covid Catch Up: To be planned in response to needs identified in Autumn 1. Continue to develop writing skills with differentiated tasks. Targeted interventions in class.</p>	<p>Spring Term 1</p> <p>Shakespeare: <i>Romeo and Juliet</i> Students will be taught to:</p> <ul style="list-style-type: none"> • Identify and interpret explicit and implicit information and ideas • Know the purpose, audience for and context of the writing and to draw on this knowledge to support comprehension <p>Assessment Reading - analysis of a key scene or theme from the play, focusing on how Shakespeare presents ideas Writing - writing for purpose using the events of the play as inspiration</p> <p>Covid Catch Up: Targeted group interventions in class. Frequent opportunities to discuss and write analytically.</p>
<p>Spring Term 2</p> <p>Fiction and Imaginative Writing Students will be taught to:</p>	<p>Summer Term 1</p> <p>Unseen Poetry GCSE Transition Students will be taught to:</p>	<p>Summer Term 2</p> <p>GCSE Transition Introduction to Language Paper 1 Section A: Reading</p>

<ul style="list-style-type: none"> • Explain, comment on and analyse how writers use language and structure to achieve effects and influence readers • Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences <p>Assessment Reading - analysis of an extract of literary fiction focusing on language and structural techniques Writing - create a descriptive piece using vocabulary and language for effect</p> <p>Covid Catch Up: Frequent opportunities for short and extended writing to monitor skills. Targeted group interventions in class focusing on written communication.</p>	<ul style="list-style-type: none"> • Select and synthesise evidence from different texts • Maintain a critical style and develop an informed personal response • Use textual references, including quotations, to support and illustrate interpretations <p>Assessment Reading - essay analysing ideas in an unseen poem, focusing on language and structure used for effect</p> <p>Covid Catch Up: As an introduction to GCSE, this topic will be new to all students. Use of targeted individual/group intervention in class based on needs identified through previous topics as new material is introduced.</p>	<p>ction B: Writing</p> <p>Assessment Reading - series of four short and long answer questions in style of GCSE Language Paper 1 Writing - descriptive or narrative writing task in style of GCSE Language Paper 1</p> <p>Covid Catch Up: As an introduction to GCSE, this topic will be new to all students. Use of targeted individual/group intervention in class based on needs identified through previous topics as new material is introduced.</p>
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Gosfield School
Curriculum Outline 2020-21

Subject: Food Technology

Year: 9

General Information:

This scheme of work has been developed to enable students to learn how to cook a range of dishes safely and hygienically and to apply their knowledge of nutrition. In addition, they will consider the factors that affect food choice, food provenance and food science.

Aims

- Students will deepen their knowledge and understanding of food and nutrition;
- Students will further develop food preparation and cooking techniques;
- Students will be able to apply their knowledge to make informed choices;
- Students will investigate where food comes from and the processes involved in food production;
- Students will begin to understand the scientific principles involved in food;
- Students will develop the creative, technical and practical expertise needed to perform everyday tasks confidently;
- Students will build and apply a repertoire of knowledge, understanding and skills in order to design and make high quality products for a wide range of users;
- Students will evaluate and test their ideas and products and the work of others.

Lessons will be fortnightly with practical tasks supporting theory work covered in each session. An ingredients booklet will show the range of activities that will be taking place throughout the term. COVID – initially we will not be undertaking practical sessions but hopefully we will be able to try practical tasks in the Spring term, if not before. Some practical tasks may need to be simplified but theory content will remain the same with greater depth being covered when no practical being performed.

Autumn Term 1	Autumn Term 2	Spring Term 1
<ul style="list-style-type: none"> • Preparing for practical work – recap • Food safety - Where do bacteria come from? • Food safety - Using the temperature prob • Food nutrition - Micro nutrients – nutrients in food, their sources & functions 	<ul style="list-style-type: none"> • Food provenance - How flour is made • Shortcrust pastry • Food Nutrition - Nutritional needs of different groups of people • Bread for target group • Food Choice - Sensory evaluation & star profiles 	<ul style="list-style-type: none"> • Food choice - Carry out taste testing • Food choice - Creating star profiles • Food science - Fermentation & caramelisation • Food Nutrition - How to carry out nutritional analysis = using software & books

Spring Term 2	Summer Term 1	Summer Term 2
<ul style="list-style-type: none"> • Food nutrition - Energy Balance • Food nutrition - Milk, yoghurt & cheese • Food science - Heat treatment of milk 	<ul style="list-style-type: none"> • Food commodities – Cereals; turning flour into pasta • Equipment = pasta machine • Making pasta & tomato sauce • Skill focus – Food science; Gelatinisation • Skill focus – Food science; choux pastry 	<ul style="list-style-type: none"> • Skill focus – Food science; setting mixture, Gelation • Food choice - Factors that influence food choice • Practical assessment; Bake off 1 Bake off 2

Gosfield School
Curriculum Outline

Subject: French

Year: 9

General Information: Students follow the course book, *Allez*. Throughout the year, topic areas are visited and revisited to deal with new material. Grammar points are also introduced progressively and reinforced during the course. Students are assessed at the end of each half term in the four areas of language learning: Reading, Writing, Listening and Speaking.

As part of our Covid Catch Up strategies, we will use each half term to focus on specific skills; checking for understanding and providing platforms for extension. Interventions will usually be carried out within the class setting with differentiated work and targeted support, monitored by the teacher.

<p>Autumn Term 1</p> <ul style="list-style-type: none"> • Talking about yourself and family • Talking about mealtimes • Ordering food in a café • Saying what you are going to eat <p>Grammar</p> <ul style="list-style-type: none"> • Giving opinions • The present tense • The near future tense • Time phrases • Intensifiers • Negatives <p>Covid Catch Up: Frequent opportunities to revise Grammar, Listening and Speaking skills in response to remote learning.</p>	<p>Autumn Term 2</p> <ul style="list-style-type: none"> • Talking about the weather • Talking about what you wear • Giving opinions about clothes <p>Grammar</p> <ul style="list-style-type: none"> • Adjectival agreements • Giving opinions • Using connectives • The verb “Faire” <p>Covid Catch Up: Frequent opportunities to check all 4 skills. Targeted group interventions within class if necessary. Unit test this half term to assess all skills.</p>	<p>Spring Term 1</p> <ul style="list-style-type: none"> • Talking about daily routine • Talking about hobbies and sports • Talking about music • Talking about last weekend <p>Grammar</p> <ul style="list-style-type: none"> • Reflexive verbs • The present tense • The perfect tense (avoir) • Negatives in the present and perfect tense <p>Covid Catch Up: To be planned in response to the needs identified from the Autumn Term.</p>
<p>Spring Term 2</p> <ul style="list-style-type: none"> • Talking about last weekend • Talking about where you go on holiday 	<p>Summer Term 1</p> <ul style="list-style-type: none"> • Talking about different countries 	<p>Summer Term 2</p> <ul style="list-style-type: none"> • Cultural study of France • Film study “Les Choristes”

<ul style="list-style-type: none"> • Talking about the type of holiday you prefer • Grammar • The perfect tense (avoir and etre) • The near future tense • Comparatives and superlatives <p>Covid CatchUp: Unit test to take place this half term to check progress. Specific skills tbc.</p>	<ul style="list-style-type: none"> • Talking about what you take on holiday • Talking about a past holiday • Revision for school exams <p>Grammar</p> <ul style="list-style-type: none"> • The present tense • The perfect tense • Near future tense <p>Covid Catch Up: To be planned in response to the needs identified from the Spring Term.</p>	<p>Grammar</p> <ul style="list-style-type: none"> • Comparisons • Giving opinions <p>Covid Catch Up: Revision for End of Year exam to be planned in response to identified needs.</p>
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Gosfield School
Curriculum Outline

Subject: Geography

Year: 9

General Information: Year 9 students start to learn about the GCSE course. Assessment is continual in lessons by oral and peer assessments. In addition, end of term tests and an end of year exam will be used to help track progress. The end of year exam is based on GCSE work to help give an indication of grades at GCSE.

<p>Autumn Term 1</p> <p><u>Hazards</u></p> <ul style="list-style-type: none"> ● Types of Hazards ● Plate Tectonics ● Tropical storms ● Seismic hazards <ul style="list-style-type: none"> ● Continue to work on Geograghy skills. 	<p>Autumn Term 2</p> <p><u>Climate Change</u></p> <ul style="list-style-type: none"> ● What is climate change ● What causes climate change ● How can climate change be managed ● Implications for the future <p>Continue to work on Geograghy skills.</p>	<p>Spring Term 1</p> <p><u>Ecosystems</u></p> <ul style="list-style-type: none"> ● What are ecosystems ● Types of ecosystem ● Food chains and Webs ● Nutrient cycling <p>Continue to work on Geograghy skills.</p>
<p>Spring Term 2</p> <p><u>Coasts</u></p> <ul style="list-style-type: none"> ● Processes ● Landforms ● Case studies ● Management and at risk areas <p>Continue to work on Geograghy skills.</p>	<p>Summer Term 1</p> <p><u>Geographical skills</u></p> <ul style="list-style-type: none"> ● Interpreting maps ● Graphs ● Diagrams ● Photos <p>Continue to work on Geograghy skills.</p>	<p>Summer Term 2</p> <ul style="list-style-type: none"> ● Field work skills and write up. <p>Continue to work on Geograghy skills.</p>

Gosfield School

Curriculum Outline

Subject: History

Year: 9

General Information: In History, students develop the skills to understand past events, analyse cause and effect, recognise patterns and evaluate sources with increasing confidence and sophistication. In Year 9 the course is based on the book: *Technology, War and Identities*. There are termly attainment tests (sometimes more regularly) and an end of year internal exam.

Autumn Term 1

Black Americans/ Slavery to Modern Times.

- Slave Triangle
- Middle Passage
- Slave Auction
- Life as a Slave
- US Civil War
- Jim Crow Laws
- Civil Rights Movement.

To recap and improve on source skills. Look at interpretation.

Autumn Term 2

Britain and World War One

- How did war start?
- Short-term reasons
- Long-term reasons
- Joining up
- Trench warfare
- Weapons
- Shell shock
- Poppy Day
- How did countries avoid more war?

To recap and improve on source skills- Look at the skill of interpretation.

Spring Term 1

Holocaust

- What was the Holocaust?
- Rise of Hitler
- Forms of Persecution
- Children.
- Olympic Games 1936
- Ghettos
- Final solution
- Resistance and Resilience.
- Liberation
- Why should the Holocaust be remembered?

Focus on the Historical skill of importance/prioritisation.

Spring Term 2

Britain and WWII

- Causes of WWII
- Early German Successes
- Dunkirk
- Battle of Britain
- Barbarossa
- D Day
- Dropping the bomb

Historical skill of causation.

Summer Term 1

Home Front.

- Appeasement
- Britain prepares for war.
- Blitz
- Evacuation
- Rationing
- Role of Women.
- What is 'terrorism'?

Summer Term 2

Modern

- Popular Culture
- Civil Rights
- Vietnam
- Assassination of JFK
- Man on the Moon
- Cold War.

Gosfield School
Curriculum Outline

Subject: Mathematics

Year: 9 Foundation

General Information

Students in years 9-11 follow a 3-year GCSE course. The current resource used is the Collins GCSE Maths textbook. At the end of the course, there are 3 x 1.5 hour examinations.

Students will complete various assessments on key topics throughout the year to check and consolidate their learning. Formal assessments will be sat at the end of each topic, when appropriate in the Scheme of Work, and students will always be given advanced notice of any assessment with dates and information set on Show My Homework. In addition, students sit an End of Year exam that is graded and compared to their targets to check progress made.

COVID CATCH UP: Class teachers will frequently assess prior knowledge prior to a new topic. This may be in various forms including, but not limited to, in class strategies, the use of online programmes and homework. This knowledge will form part of our internal review of all learning opportunities. Consequently, each class may work faster or slower than the outline below.

<p>Autumn Term 1</p> <ul style="list-style-type: none"> • Basic number • BIDMAS • Negative numbers • 4 operations • Measures • Scale drawing 	<p>Autumn Term 2</p> <ul style="list-style-type: none"> • Frequency tables • Statistical diagrams • Averages • Angle facts • Triangles • Angles in a polygon • Regular polygons • Parallel lines • Quadrilaterals • Bearings 	<p>Spring Term 1</p> <ul style="list-style-type: none"> • Multiples • Factors • Primes • LCM/HCF • Square numbers and roots • Rounding • Approximations
<p>Spring Term 2</p> <ul style="list-style-type: none"> • Decimals • Reciprocals • Arithmetic with fractions • Graphs and equations • Gradient of a line • $y = mx + c$ • Equation of a line • Real life graphs • Simultaneous equations 	<p>Summer Term 1</p> <ul style="list-style-type: none"> • Basic algebra • Substitution • Expanding brackets • Factorisation • Quadratics • Changing the subject of a formula • Ratio • Speed, distance, time • Direct proportion • Best buys 	<p>Summer Term 2</p> <ul style="list-style-type: none"> • Consolidation/Revision • End of Year exams

Gosfield School
Curriculum Outline

Subject: Mathematics

Year: 9 Higher

General Information

Students in years 9-11 follow a 3-year GCSE course. The current resource used is the Collins GCSE Maths textbook. At the end of the course, there are 3 x 1.5 hour examinations.

Students will complete various assessments on key topics throughout the year to check and consolidate their learning. Formal assessments will be sat at the end of each topic, when appropriate in the Scheme of Work, and students will always be given advanced notice of any assessment with dates and information set on Show My Homework. In addition, students sit an End of Year exam that is graded and compared to their targets to check progress made.

COVID CATCH UP: Class teachers will frequently assess prior knowledge prior to a new topic. This may be in various forms including, but not limited to, in class strategies, the use of online programmes and homework. This knowledge will form part of our internal review of all learning opportunities. Consequently, each class may work faster or slower than the outline below.

<p>Autumn Term 1</p> <ul style="list-style-type: none"> • Factors, multiples, primes, powers, roots • Arithmetic with decimals • Approximations • Negatives • Arithmetic with fractions • Percentage increase/decrease 	<p>Autumn Term 2</p> <ul style="list-style-type: none"> • Statistical representations, measures • Scatter diagrams • Number patterns • Number sequences • nth term • Quadratic sequences 	<p>Spring Term 1</p> <ul style="list-style-type: none"> • Ratio • Direct proportion • Compound measures • Compound interest • Reverse percentages • Angles facts • Triangles • Polygons • Parallel lines • Scales drawings and bearings
<p>Spring Term 2</p> <ul style="list-style-type: none"> • Transformations • Constructions • Loci • Basic algebra • Factorisation • Quadratic expansion • Quadratic factorisation • Changing the subject of a formula 	<p>Summer Term 1</p> <ul style="list-style-type: none"> • Circles • Parallelograms • Trapeziums • Sectors, cylinders, cones, spheres, pyramids • Linear graphs • Equation of a line • Simultaneous equations from graphs • Parallel and perpendicular lines 	<p>Summer Term 2</p> <ul style="list-style-type: none"> • Consolidation/Revision • End of Year exams

Gosfield School

Curriculum Outline

Subject: MUSIC

Year: 9

General Information:

Three main areas - **Listening, performing** and **composition**. All of these are supported by theory and historical context with a view to enabling all pupils to access a variety of musical styles through practical engagement.

First Half Term

12 Bar Blues. Understanding the 12BB pattern and its significance.

Listening: Blues artists such as Muddy Waters.

Elements: Form/Structure - 12BB.

Performing 12 Bar Blues.

Composing: using 12 BB and the Blues scale to create an effective melody

Second Half Term

Four Chord Songs I-vi-IV-V. Song structure.

Listening: Axis of Awesome etc.

Elements: Harmony/Structure

Performing: Four chord pattern.

Composing: Christmas song using four chord pattern.

Third Half Term

Film Music - the use of Motifs

Listening: John Williams/James Horner/Wagner/Strauss/Berlioz

Elements: All

Performing: Leitmotifs and themes.

Composing: Writing an effective Leitmotif to represent person, place, thing or time.

Fourth Half Term

Songs from Musicals/Opera

Listening: Sondheim/Lloyd Weber/Mozart.

Elements: All with focus on word-painting.

Performing: Songs from musicals

Fifth Half Term

Fusions of styles and cultures. What is music going to sound like in the future?

Listening: John Williams/James Horner/Wagner/Strauss/Berlioz

Elements: All

Sixth Half Term

Putting on a show. What is involved in the Music industry? What options are available to people within the industry?

Understanding the importance of music within society.

Composing & Performing: Working as a group to write and perform a song which

<p>Composing: Setting a given text to music using word-painting.</p>	<p>Performing: Pieces from a variety of styles in order to experience key features of the genre.</p> <p>Composing: Writing a piece fusing at least two well-known genres E.g. Reggae and a Waltz.</p>	<p>could be part of a brand new school musical. Bringing it all together to end KS3 Music study.</p> <p>Also: preparation/introduction for those wishing to take GCSE Music in Y10.</p>
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Gosfield School
Curriculum Outline

Subject: Politics

Year: 9

General Information:

Politics is a subject that teaches children about the country and the world we live in. It teaches them about how the country is run and decisions made. It allows them time to study current affairs and to debate the issues that surround the world today. We will follow a prescribed outline, but, also focus on events as they happen around the world.

Autumn Term 1

- Community Cohesion
- Is Britain a melting pot?
- Changing patterns and local patterns of population.

Continue to focus on debate and formulating an argument.
Understanding of the world around us.

Autumn Term 2

- Migration in the UK
- Identity in the UK
- Respect – Human Rights.
- How do we develop community cohesion?

Understanding the world with a critical eye. How to interpret information.

Spring Term 1

- History of Human Rights.
- Human Rights conflict.
- Legal and Moral Rights.

Spring Term 2

- Political Rights
- Should we scrap Human Rights?
- Rights in the workplace. (Trade Unions).

Summer Term 1

- Who represents us?
- How does the council work?
- What do the council do?

Summer Term 2

- Work of the local councilor.
- Problems and Solutions to local issues.

Gosfield School

Curriculum Outline

Subject: PSHEE

Year: 9

General Information: PSHEE at Gosfield School is taught to all students from Years 7 – 11. The core themes taught under the PSHEE umbrella are:

- 1) Health and Wellbeing
- 2) Relationships
- 3) Living in the Wider World

The aims of PSHEE are to:

- Improve students’ knowledge of local and global issues and issues that have an effect over their lives
- Help students to gain skills and personal qualities that will help them in life after Gosfield School
- Help build students’ understanding of a wide range of issues
- Help students build confidence and self-esteem
- Help students become more effective learners
- Help students develop an awareness of risk, and making appropriate choices based on this awareness
- To help raise the students’ awareness and appreciation of British Values in today’s society.

<p>Autumn Term 1</p> <p>Decisions and Transitions</p> <ul style="list-style-type: none"> • Decisions and choices • Options and transition to GCSE years • Skills and diversity • Smart decisions <p><u>Assessment:</u> A written piece on careers and smart decisions</p>	<p>Autumn Term 2</p> <p>Careers, Enterprise and Money</p> <ul style="list-style-type: none"> • Careers • Enterprise project • Money management and to assess and manage risk in relation to financial decisions that young people might make <p><u>Assessment:</u> Enterprise project assessment</p>	<p>Spring Term 1</p> <p>Health, Addiction and Mental Health</p> <ul style="list-style-type: none"> • County Lines • Dangers of smoking/vaping • Alcohol • Drugs <p><u>Assessment:</u> Written piece on the dangers of alcohol abuse</p>
<p>Spring Term 2</p> <p>Relationships and body Image</p> <ul style="list-style-type: none"> • Emotions • Relationships and Sex Education including STIS and contraception • Body image 	<p>Summer Term 1</p> <p>Living in the Wider World The law and the Environment</p> <ul style="list-style-type: none"> • The law • Environmental issues 	<p>Summer Term 2</p> <p>Living in the Wider World</p> <ul style="list-style-type: none"> • Celebrities • Parenting <p>The dangers of viewing harmful content online</p>

<u>Assessment:</u> A poster on the link between media and body image	<u>Assessment:</u> Campaign for the environment	<u>Assessment:</u> To make an information leaflet on parenting
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Gosfield School

Curriculum Outline

Subject: Religion, Ethics and Philosophy

Year: 9

General Information: In years 7-9 students have one lesson every two weeks and engage with abstract aspects of faith including beliefs, concepts, truth claims, ethical stances and philosophical ideas.

Throughout Years 7-9, students extend their understanding of Christianity and other principal religions in a local, national and global context. They deepen their understanding of important beliefs, concepts and issues of truth and authority in religion. They apply their understanding of religious and philosophical beliefs, teachings and practices to a range of ultimate questions and ethical issues, with a focus on self-awareness, relationships, rights and responsibilities. Students will enquire into and explain some personal, philosophical, theological and cultural reasons for similarities and differences in religious beliefs and values, both within and between religions. They interpret religious texts and other sources, recognising both the power and limitations of language and other forms of communication in expressing ideas and beliefs.

Students reflect on the impact of religion and belief in the world, considering both the importance of interfaith dialogue and the tensions that exist within and between religions and beliefs. They develop their evaluative skills, showing reasoned and balanced viewpoints when considering their own and others' responses to religious, philosophical and spiritual issues.

Students spend time studying each of the principal religions represented in Great Britain (Christianity, Buddhism, Hinduism, Islam, Judaism and Sikhism) and secular world views, such as Humanism.

<p>Autumn Term 1</p> <p>Birth</p> <ul style="list-style-type: none"> • Baptism • Jewish Circumcision • Hindhu Birth Ceremony • Sikh Naming Ceremony <p>Conceptual areas- Identity, diversity and belonging</p>	<p>Autumn Term 2</p> <p>Growing Up</p> <ul style="list-style-type: none"> • Adulthood • Bar and Bat Mitzvah • Confirmation • Sacred Thread ceremony <p>Conceptual areas- Identity, diversity and belonging</p>	<p>Spring Term 1</p> <p>Marriage</p> <ul style="list-style-type: none"> • Christian Marriage • Hindu Marriage • Jewish Marriage <p>Conceptual areas- Values and commitments</p>
<p>Spring Term 2</p> <p>End of Life</p> <ul style="list-style-type: none"> • Life after Death • Christian View of Afterlife • Islamic Afterlife • Reincarnation <p>Conceptual areas- Values and commitments</p>	<p>Summer Term 1</p> <p>Suffering</p> <ul style="list-style-type: none"> • Animal Welfare • Human Rights • Happiness <p>Conceptual areas- Questions of meanings, purpose and truth</p>	<p>Summer Term 2</p> <p>Religion vs Science</p> <ul style="list-style-type: none"> • Does science allow people to play God? • Philosophy <p>Conceptual areas- Questions of meaning, purpose and truth</p>

Gosfield School

Curriculum Outline

Subject: AQA GCSE Science

Year: 9 Trilogy (Double Combined Science)

General Information: Year 9 will start the AQA GCSE Trilogy (Double Science) GCSE with a view to increasing and consolidating the practical skills and key concepts that form the basis for each subject (Biology, Chemistry and Physics).

Internally set and marked topic tests will take place throughout the year, but the summative examinations for the course will not take place until the end of Year 11.

Autumn Term

Biology: Cell Biology

- Know that eukaryotic cells have a cell membrane, cytoplasm, and genetic material enclosed in a nucleus
- Know that prokaryotic cells are much smaller by comparison and have cytoplasm and a cell membrane surrounded by a cell wall. The genetic material is not enclosed in a nucleus. It is a single DNA loop and there may be one or more small rings of DNA called plasmids.
- Be able to calculate the size of cells and make order of magnitude calculations, including the use of standard form.
- Explain how the main sub-cellular structures are related to their functions (nucleus, cell membrane, mitochondria, chloroplasts, plasmids).
- Describe the similarities and differences between animal and plant cells.
- Know that plant and algal cells have a cellulose cell wall, which strengthens the cell.

Spring Term

Biology: Organisation

- Recall that cells are the basic building blocks of all living organisms, a tissue is a group of cells with a similar structure and function, organs are aggregations of tissues performing specific functions and organs are organised into organ systems, which work together to form organisms.
- Recall that the digestive system is an example of an organ system in which several organs work together to digest and absorb food.
- Describe the nature of enzyme molecules and relate their activity to temperature and pH changes.
- Carry out rate calculations for chemical reactions.
- Recall that enzymes catalyse specific reactions in living organisms due to the shape of their active site.
- Use the 'lock and key theory' as a simplified model to explain enzyme action. Recall the sites of production and the action of amylase, proteases and lipases.
- Use simple word equations for enzyme reactions.
- Recall that digestive enzymes

Summer Term

Biology: Infection & Response

- Explain how diseases caused by viruses, bacteria, protists and fungi are spread in animals and plants.
- Explain how the spread of diseases can be reduced or prevented.
- Recall that pathogens are microorganisms that cause infectious disease. Pathogens may be viruses, bacteria, protists or fungi. They may infect plants or animals and can be spread by direct contact, by water or by air.
- Recall that bacteria and viruses may reproduce rapidly inside the body. Recall that bacteria may produce poisons (toxins) that damage tissues and make us feel ill.
- Recall that viruses live and reproduce inside cells, causing cell damage.
- Recall the symptoms, spread and treatment of the viral diseases, measles, HIV/AIDS and tobacco mosaic virus.
- Recall the symptoms, spread and treatment of the bacterial diseases, salmonella food poisoning

<ul style="list-style-type: none"> ● Use estimations to judge the relative size or area of sub-cellular structures. ● Use a light microscope to observe, draw labelled scientific drawings of a selection of cells, with a magnification scale. ● Explain how the structure of different types of cell relate to their function in tissues, organs, organ systems or whole organisms, including sperm cells, nerve cells, muscle cells, root hair cells, xylem and phloem cells. ● Explain the importance of cell differentiation. ● Describe the differences between differentiation in plan and animal cells. ● Describe how microscopy techniques have developed over time and how electron microscopy has increased understanding of sub-cellular structures. ● Know the difference between magnification and resolution. ● Carry out calculations using the formula $\text{magnification} = \frac{\text{size of image}}{\text{size of real object}}$. ● Use prefixes and powers of ten for orders of magnitude (eg tera, giga, mega, kilo, centi, milli, micro and nano) ● Recognise and use expressions in standard form ● Use an appropriate number of significant figures ● Make order of magnitude calculations ● Recognise, draw and interpret images of cells. ● Make estimates of the results of simple calculations. ● Use appropriate apparatus 	<p>convert food into small soluble molecules that can be absorbed into the bloodstream. Carbohydrates break down carbohydrates to simple sugars. Amylase is a carbohydrase, which breaks down starch. Proteases break down proteins to amino acids. Lipases break down lipids (fats) to glycerol and fatty acids.</p> <ul style="list-style-type: none"> ● Recall that the products of digestion are used to build new carbohydrates, lipids and proteins. Some glucose is used in respiration. ● Recall that bile is made in the liver and stored in the gall bladder. It is alkaline to neutralise hydrochloric acid from the stomach. It also emulsifies fat to form small droplets, which increases the surface area. The alkaline conditions and large surface area increase the rate of fat breakdown by lipase. ● Recall the qualitative reagents to test for a range of carbohydrates, lipids and proteins. ● Describe the method and results for Benedict's test for sugars; iodine test for starch; and Biuret reagent for protein. ● Be able to use a continuous sampling technique to determine the time taken to completely digest a starch solution at a range of pH values. ● Describe the structure and functioning of the human heart and lungs, including how lungs are adapted for gaseous exchange. ● Recall that the heart is an organ that pumps blood around the body in a double 	<p>and gonorrhoea.</p> <ul style="list-style-type: none"> ● Recall the symptoms, spread and treatment of the fungal disease rose black spot. ● Recall the symptoms, spread and treatment of malaria. ● Describe the non-specific defence systems of the human body against pathogens, including the skin, nose, trachea and bronchi and stomach. Explain the role of the immune system in the defence against disease. ● Recall that white blood cells help to defend against pathogens by: <ul style="list-style-type: none"> ● phagocytosis ● antibody production ● antitoxin production. ● Explain how vaccination will prevent illness in an individual, and how the spread of pathogens can be reduced by immunising a large proportion of the population. ● Recall that vaccination involves introducing small quantities of dead or inactive forms of a pathogen into the body to stimulate the white blood cells to produce antibodies. If the same pathogen re-enters the body the white blood cells respond quickly to produce the correct antibodies, preventing infection. ● Explain the use of antibiotics and other medicines in treating disease. Recall that antibiotics, such as penicillin, are medicines that help to cure bacterial disease by killing infective bacteria inside the body. ● Recall that it is important that specific bacteria should be treated by specific
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to record length and area.

Chemistry: Atomic Structure & Periodic Table

- Know that all substances are made of atoms. An atom is the smallest part of an element that can exist.
- Know that atoms of each element are represented by a chemical symbol.
- Know that there are about 100 different elements shown in the periodic table.
- Describe how compounds are formed from elements by chemical reactions that involve an energy change.
- Be able to represent compound as formulae, which show fixed proportions.
- Use the names and symbols of the first 20 elements in the periodic table and those in Groups 1 and 7.
- Be able to name compounds of these elements from given formulae or from symbol equations.
- Write word equations for simple reactions.
- Write balanced symbol equations for simple reactions.
- *Write balanced half equations and ionic equations where appropriate.*
- Know that a mixture consists of two or more elements or compounds not chemically combined together. The chemical properties of each substance in the mixture are unchanged.
- Describe, explain and give examples of filtration, crystallisation, simple distillation, fractional

circulatory system. The right ventricle pumps blood to the lungs where gas exchange takes place. The left ventricle pumps blood around the rest of the body.

- Recall the positions of the aorta, vena cava, pulmonary artery, pulmonary vein and coronary arteries.
- Recall the positions of the trachea, bronchi, alveoli and the capillary network surrounding the alveoli.
- Recall that the natural resting heart rate is controlled by a group of cells located in the right atrium that act as a pacemaker.
- Recall that artificial pacemakers are electrical devices used to correct irregularities in the heart rate.
- Recall that the body contains three different types of blood vessel – arteries, veins and capillaries.
- Explain how the structure of these vessels relates to their functions.
- Use simple compound measures such as rate and carry out rate calculations for blood flow.
- Recall that blood is a tissue consisting of plasma, in which the red blood cells, white blood cells and platelets are suspended.
- Recall the functions of each of these blood components.
- Evaluate risks related to use of blood products.
- Recognise different types of blood cells in a photograph or diagram, and explain how they are adapted to their functions.
- Develop an understanding of size and scale in relation to

antibiotics.

- Recall that the use of antibiotics has greatly reduced deaths from infectious bacterial diseases. However, the emergence of strains resistant to antibiotics is of great concern.
- Recall that antibiotics cannot kill viral pathogens.
- Recall that painkillers and other medicines are used to treat the symptoms of disease but do not kill pathogens.
- Recall that it is difficult to develop drugs that kill viruses without also damaging the body's tissues.
- Evaluate the global use of vaccination in the prevention of disease.
- Understand that the results of testing and trials are published only after scrutiny by peer review.

Chemistry: Chemical Changes

- determine empirical formulae from the ratio of atoms of different kinds
- balance chemical equations, ionic equations and state symbols
- identify common gases
- understand the chemistry of acids; reactions with some metals and carbonates
- understand pH as a measure of hydrogen ion concentration and its numerical scale
- understand electrolysis of molten ionic liquids and aqueous ionic solutions
- understand reduction and oxidation in terms of loss or gain of oxygen.

<p>distillation and chromatography.</p> <ul style="list-style-type: none"> ● Suggest suitable separation and purification techniques for mixtures when given appropriate information. ● Recall the relative masses and electrical charges of the particles in atoms and that atoms have no overall charge. ● Use the nuclear model to describe atoms. ● Recall that atoms are very small, having a radius of about 0.1 nm (1×10^{-10} m). The radius of a nucleus is less than 1/10 000 of that of the atom (about 1×10^{-14} m). ● Recall that the sum of the protons and neutrons in an atom is its mass number. ● Know that atoms of the same element can have different numbers of neutrons; these atoms are called isotopes of that element. ● Calculate the numbers of protons, neutrons and electrons in an atom or ion, given its atomic number and mass number. ● Know that the relative atomic mass of an element is an average value that takes account of the abundance of the isotopes of the element. ● Calculate the relative atomic mass of an element given the percentage abundance of its isotopes. ● Recall that the electrons in an atom occupy the lowest available energy levels (innermost available shells). ● Represent the electronic structure of an atom by numbers or by a diagram. 	<p>cells, tissues, organs and systems.</p> <ul style="list-style-type: none"> ● Recognise and use expressions in decimal form ● Use ratios, fractions and percentages ● Use other models to explain enzyme action. ● Evaluate methods of treatment bearing in mind the benefits and risks associated with the treatment. ● Construct and interpret frequency tables and diagrams, bar charts and histograms. ● Use a scatter diagram to identify a correlation between two variables. ● Translate information between graphical and numeric form. ● Use appropriate apparatus to make and record a range of measurements accurately, including mass, time, temperature, volume and pH. ● Safely use appropriate heating devices and techniques including use of a Bunsen burner and a water bath or electric heater. ● Measure rate of reaction by colour change of indicator. <p>Chemistry: Bonding, Structure & Properties</p> <ul style="list-style-type: none"> ● Recall that there are three types of strong chemical bonds: ionic, covalent and metallic. For ionic bonding the particles are oppositely charged ions. For covalent bonding the particles are atoms, which share pairs of electrons. For metallic bonding the particles are atoms, which share delocalised electrons. Recall that ionic bonding occurs in 	<p>Physics: Atomic Structure</p> <ul style="list-style-type: none"> ● Recall that atoms are very small, having a radius of about 1×10^{-10} metres. Recall that the basic structure of an atom is a positively charged nucleus composed of both protons and neutrons surrounded by negatively charged electrons. ● Recall that the radius of a nucleus is less than 1/10 000 of the radius of an atom. ● Recall that most of the mass of an atom is concentrated in the nucleus. The electrons are arranged at different distances from the nucleus (different energy levels). ● Recall that the electron arrangements may change with the absorption of electromagnetic or by the emission of electromagnetic radiation. ● Recall that in an atom the number of electrons is equal to the number of protons in the nucleus. Atoms have no overall electrical charge. ● Recall that all atoms of a particular element have the same number of protons. The number of protons in an atom of an element is called its atomic number. The total number of protons and neutrons in an atom is called its mass number. ● Recall that atoms of the same element can have different numbers of neutrons; these atoms are called isotopes of that element. ● Describe how atoms turn into positive ions if they lose one or more outer electron(s). ● Relate differences between
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<ul style="list-style-type: none"> ● Explain how the position of an element in the periodic table is related to the arrangement of electrons in its atoms and hence to its atomic number. ● Predict possible reactions and probable reactivity of elements from their positions in the periodic table. ● Describe the steps in the development of the periodic table. ● Explain the differences between metals and non-metals on the basis of their characteristic physical and chemical properties. ● Explain how the atomic structure of metals and non-metals relates to their position in the periodic table. ● Explain how the reactions of elements are related to the arrangement of electrons in their atoms and hence to their atomic number. ● Explain how properties of the elements in Group 0, 1 and 7 depend on the outer shell of electrons of the atoms. ● Predict properties from given trends down Group 0, 1 and 7. ● Safely use of a range of equipment to separate chemical mixtures. ● Apply understanding of apparatus and techniques to suggest a procedure for a specified purpose. ● Describe a practical procedure for a specified purpose. ● Explain why a given practical procedure is well designed for its specified purpose. 	<p>compounds formed from metals combined with non-metals. Covalent bonding occurs in most non-metallic elements and in compounds of non-metals. Metallic bonding occurs in metallic elements and alloys.</p> <ul style="list-style-type: none"> ● Explain chemical bonding in terms of electrostatic forces and the transfer or sharing of electrons. ● Be able to draw dot and cross diagrams for ionic compounds formed by metals in Groups 1 and 2 with non-metals in Groups 6 and 7. ● Recall that the charge on the ions produced by metals in Groups 1 and 2 and by non-metals in Groups 6 and 7 relates to the group number of the element in the periodic table. ● Calculate the charge on the ions of metals and non-metals from the group number of the element, limited to the metals in Groups 1 and 2, and non-metals in Groups 6 and 7. ● Deduce that a compound is ionic from a diagram of its structure in one of the specified forms. ● Describe the limitations of using dot and cross, ball and stick, two and three-dimensional diagrams to represent a giant ionic structure. ● Calculate the empirical formula of an ionic compound from a given model or diagram that shows the ions in the structure. ● Recall the structure of sodium chloride. ● Be able to draw dot and cross diagrams for the molecules of hydrogen, chlorine, oxygen, 	<p>isotopes to differences in conventional representations of their identities, charges and masses.</p> <ul style="list-style-type: none"> ● Explain how new experimental evidence may led to the model of the atom being changed or replaced, including the discovery of the electron, the plum pudding model, the nuclear model, the discovery of the neutron ● Describe the difference between the plum pudding model of the atom and the nuclear model of the atom. ● Recall that some atomic nuclei are unstable. The nucleus gives out radiation as it changes to become more stable. This is a random process called radioactive decay. ● Describe activity as the rate at which a source of unstable nuclei decays. Activity is measured in becquerel (Bq) Count-rate is the number of decays recorded each second by a detector (eg Geiger-Muller tube). ● Recall that the nuclear radiation emitted may be: <ul style="list-style-type: none"> ● an alpha particle (α) – this consists of two neutrons and two protons, it is the same as a helium nucleus ● a beta particle (β) – a high speed electron ejected from the nucleus as a neutron turns into a proton ● a gamma ray (γ) – electromagnetic radiation from the nucleus ● a neutron (n). ● Recall the properties of alpha particles, beta particles and gamma rays, limited to their penetration through materials, their range in air
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<ul style="list-style-type: none"> ● Describe/suggest/select the technique, instrument, apparatus or material that should be used for a particular purpose, and explain why. ● Use SI units and the prefix nano. ● Recognise expressions in standard form. ● Students should be able to represent the electronic structures of the first twenty elements of the periodic table in both forms. ● Visualise and represent 2D and 3D forms including two dimensional representations of 3D objects ● Explain how testing a prediction can support or refute a new scientific idea. <p>Physics: Energy</p> <ul style="list-style-type: none"> ● 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. ● 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. ● Calculate the kinetic energy of a moving object using the equation: <ul style="list-style-type: none"> ○ kinetic energy = $0.5 \times \text{mass} \times \text{speed}^2$ ● Calculate the amount of elastic potential energy 	<p>nitrogen, hydrogen chloride, water, ammonia and methane.</p> <ul style="list-style-type: none"> ● Be able to represent the covalent bonds in small molecules, in the repeating units of polymers and in part of giant covalent structures, using a line to represent a single bond. ● Describe the limitations of using dot and cross, ball and stick, two and three-dimensional diagrams to represent molecules or giant structures. ● Calculate the molecular formula of a substance from a given model or diagram in these forms showing the atoms and bonds in the molecule. ● Predict the states of substances at different temperatures given appropriate data. ● Explain the different temperatures at which changes of state occur in terms of energy transfers and types of bonding. ● Recall that atoms themselves do not have the bulk properties of materials ● Recall the properties of ionic compounds, small molecules and polymers and relate these to their structures. ● Visualise and represent 2D and 3D forms including two dimensional representations of 3D objects. <p>Physics: Particle Model</p> <ul style="list-style-type: none"> ● Recall that the density of a material is defined by the equation: ● density = mass / volume and the units for each of these quantities. 	<p>and ionising power.</p> <ul style="list-style-type: none"> ● Evaluate the best sources of radiation to use in a given situation. ● Represent radioactive decay as nuclear equations. ● Recall that the emission of the different types of nuclear radiation may cause a change in the mass and /or the charge of the nucleus. ● Use the names and symbols of common nuclei and particles to write balanced equations that show single alpha(α) and beta (β) decay. This is limited to balancing the atomic numbers and mass numbers. ● Recall that the emission of a gamma ray does not cause the mass or the charge of the nucleus to change. ● Recall that radioactive decay is random. ● Recall that the half-life of a radioactive isotope is the time it takes for the number of nuclei of the isotope in a sample to halve, or the time it takes for the count rate (or activity) from a sample containing the isotope to fall to half its initial level. ● Explain the concept of half-life and how it is related to the random nature of radioactive decay. ● Determine the half-life of a radioactive isotope from given information. ● Recall that radioactive contamination is the unwanted presence of materials containing radioactive atoms on other materials. The hazard from contamination is due to the decay of the contaminating atoms. The type of radiation
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<p>stored in a stretched spring using the equation:</p> <ul style="list-style-type: none"> ○ elastic potential energy = $0.5 \times \text{spring constant} \times \text{extension}^2$ <ul style="list-style-type: none"> ● Calculate the amount of gravitational potential energy gained by an object raised above ground level using the equation: <ul style="list-style-type: none"> ○ g. p. e. = mass \times gravitational field strength \times height ● Calculate the amount of energy stored in or released from a system as its temperature changes using the equation: <ul style="list-style-type: none"> ○ change in thermal energy = mass \times SHC \times temperature change ● Recall that the specific heat capacity of a substance is the amount of energy required to raise the temperature of one kilogram of the substance by one degree Celsius. ● Describe an investigation to determine the specific heat capacity of one or more materials. ● Recall that power is defined as the rate at which energy is transferred or the rate at which work is done. ● Calculate power using both equations. ● Know that energy can be transferred usefully, stored or dissipated, but cannot be created or destroyed. ● Describe with examples where there are energy transfers in a closed system, that there is no net change to the total energy. ● Describe, with examples, 	<ul style="list-style-type: none"> ● Use the density equation and apply it to changes where mass is conserved. ● Use the particle model to explain <ul style="list-style-type: none"> ● • the different states of matter; ● • differences in density. ● Recognise and be able to draw simple diagrams to model the difference between solids, liquids and gases. ● Explain the differences in density between the different states of matter in terms of the arrangement of atoms or molecules. ● Use appropriate apparatus to make and record the measurements ● needed to determine the densities of regular and irregular solid objects and liquids. Volume should be determined from the dimensions of regularly shaped objects, and by a displacement technique for irregularly shaped objects. Dimensions to be measured using appropriate apparatus such as a ruler, micrometer or Vernier callipers. ● Describe how, when substances change state (melt, freeze, boil, evaporate, condense or sublimate), mass is conserved. ● Recall that changes of state are physical changes which differ from chemical changes because the material recovers its original properties if the change is reversed. ● Recall that energy is stored inside a system by the particles (atoms and molecules) that make up the system. This is called internal energy. 	<p>emitted affects the level of hazard.</p> <ul style="list-style-type: none"> ● Recall that irradiation is the process of exposing an object to nuclear radiation. The irradiated object does not become radioactive. ● Compare the hazards associated with contamination and irradiation. ● Describe suitable precautions to be taken to protect against any hazard that the radioactive source used in the process of irradiation may present. ● Explain why it is important for the findings of studies into the effects of radiation on humans to be published and shared with other scientists so that the findings can be checked by peer review.
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how in all system changes energy is dissipated, so that it is stored in less useful ways. This energy is often described as being 'wasted'.

- Recognise and use expressions in decimal form
- Use ratios, fractions and percentages
- Change the subject of an equation
- Use appropriate apparatus to make and record a range of measurements accurately, including mass, volume and temperature.

- Recall that internal energy is the total kinetic energy and potential energy of all the particles (atoms and molecules) that make up a system.
- Recall that heating changes the energy stored within the system by increasing the energy of the particles that make up the system. This either raises the temperature of the system or produces a change of state.
- Recall that if the temperature of the system increases, the increase in temperature depends on the mass of the substance heated, the type of material and the energy input to the system.
- Use the equation: change in thermal energy = mass \times specific heat capacity \times temperature change ($\Delta E = m c \Delta \theta$ change in thermal energy, ΔE) and the units for this equation.
- Recall that the specific heat capacity of a substance is the amount of energy required to raise the temperature of one kilogram of the substance by one degree Celsius.
- Recall that if a change of state happens:
 - the energy needed for a substance to change state is called latent heat. When a change of state occurs, the energy supplied changes the energy stored (internal energy) but not the temperature.
 - the specific latent heat of a substance is the amount of energy required to change the state of one

	<p style="text-align: center;">kilogram of the substance with no change in temperature.</p> <ul style="list-style-type: none"> ● Apply the equation : energy for a change of state = mass × specific latent heat ($E = mL$) and recall the units for quantities in this equation. ● Recall that the specific latent heat of fusion is calculated from the change of state from solid to liquid ● Recall that the specific latent heat of vaporisation is calculated from the change of state from liquid to vapour ● Perform an experiment to measure the latent heat of fusion of water. ● Interpret heating and cooling graphs that include changes of state. ● Distinguish between specific heat capacity and specific latent heat. ● Recall that the molecules of a gas are in constant random motion and the temperature of the gas is related to the average kinetic energy of the molecules. ● Recall that changing the temperature of a gas, held at constant volume, changes the pressure exerted by the gas. ● Explain how the motion of the molecules in a gas is related to both its temperature and its pressure ● Explain qualitatively the relation between the temperature of a gas and its pressure at constant volume. 	
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Gosfield School

Curriculum Outline

Subject: Spanish

Year: 9

General Information: Throughout Years 7 - 9 topic areas are visited and revisited to consolidate the learning and to develop knowledge and skills. Grammar points are introduced progressively and reinforced during the course. The textbook used is *Mira 3*. There are four components involved in language learning: Listening, Speaking, Reading and Writing skills. These four skills are tested in the End of Unit Tests.

Students require a Spanish/English dictionary for use at home.

As part of our Covid Catch Up strategies, we will use each half term to focus on specific skills; checking for understanding and providing platforms for extension. Interventions will usually be carried out within the class setting with differentiated work and targeted support, monitored by the teacher.

Autumn Term 1

- Talking about yourself and your family
- Saying what you do on the computer
- Talking about films and television programmes
- Talking about music
- Saying what you did last weekend

Grammar

- Present tense (regular and irregular verbs)
- Adjective agreements
- Opinion phrases
- Verb – soler
- Near future tense
- Preterite tense

Covid Catch up: Frequent opportunities to revise Grammar, Listening and Speaking skills in response to remote learning. Targeted group interventions within class if necessary.

Autumn Term 2

- Saying what you did last weekend
- Describing your school
- Discussing school subjects
- Opinions on teachers
- Christmas in Spain

Grammar

- Preterite tense
- Time phrases
- Prepositional pronouns
- Comparisons and superlatives

Covid Catch up: Frequent opportunities to check all 4 skills. Targeted group interventions within class if necessary. Unit test this half term to assess all skills.

Spring Term 1

- Discussing school rules
- Future plans
- The parts of the body
- Saying what hurts
- Buying medical supplies

Grammar

- Verbs followed by infinitives
- Se puede / se debe
- Future tense
- Desde hace
- Verb – doler

Covid Catch Up: To be planned in response to the needs identified from the Autumn Term.

<p>Spring Term 2</p> <ul style="list-style-type: none"> • Saying which food you like and dislike • Discussing what you eat • Healthy and unhealthy lifestyles • Revision for exam <p>Grammar</p> <ul style="list-style-type: none"> • Using past, present and future tenses together • Para and infinitive <p>Covid Catch Up: Unit test to take place this half term to check progress. Specific skills tbc.</p>	<p>Summer Term 1</p> <ul style="list-style-type: none"> • Revision for exam • Discussing what jobs you do at home • Discussing pocket money • Discussing jobs <p>Grammar</p> <ul style="list-style-type: none"> • Present tense revision • Adjectival endings • Conditional tense <p>Covid Catch Up: To be planned in response to the needs identified from the Spring Term.</p>	<p>Summer Term 2</p> <ul style="list-style-type: none"> • Discussing languages in the world of work • Discussing if you win the lottery • Travel by train • Tourist information <p>Grammar</p> <ul style="list-style-type: none"> • Future tense • Using 3 tenses together <p>Covid Catch Up: Revision for End of Year exam to be planned in response to identified needs.</p>
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