Dartford Grammar School for Girls

Year 9
Curriculum Overview Booklet
2026-27

A guide for Parents/Carers

Working together to achieve academic excellence and personal potential

DGGS Curriculum Intent:

Our Academic Curriculum is designed to give our students access to the best that has been thought and said, helping to engender an appreciation of human creativity and achievement. Our Key Stage 4 curriculum, followed by Year 9, 10 and 11 students, consists of *core*, *extended core* and a very wide range of *optional* subjects leading to GCSE qualifications in the four entitlement areas (the Arts, Design and Technology, the Humanities and Modern Foreign Languages). This three year curriculum allows students to gain depth of knowledge and further challenge with content that goes beyond GCSE. It is an ambitious curriculum which gives students the opportunity to access knowledge which goes beyond the GCSE specifications at Key Stage 4.

Our Academic Curriculum at Dartford Grammar School for Girls aims to ensure that all students:

- Flourish academically and develop their skills and talents as individuals.
- Develop a strong sense of community and responsibility to both ourselves and others.
- Experience challenge and stimulation of their minds through excellent teaching, diverse learning opportunities, and a rich, balanced curriculum.
- Explore and develop their personal interests though extra-curricular opportunities.
- Reach their potential through personalised and specialist support and guidance.
- Are encouraged to develop as global citizens and to make a significant contribution to the wider world.

End of Key Stage Expectations:

By the end of Key Stage 4 our students gain excellent GCSE results, have access to our high achieving Sixth Form, and will have further developed their independent study skills to ensure they are well prepared for A Levels.

Subject Areas

Art

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Art GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **ART** at DGGS aims to:

- To develop increasingly sophisticated observational drawing, painting and sculptural skills through sustained practical investigation.
- To develop procedural knowledge through experimentation and refinement across drawing, painting, mixed media and ceramics.
- To encourage students to investigate how artists communicate ideas, identity, culture and personal meaning through visual language.
- ● To develop understanding of composition, colour, tone, texture, pattern, form and surface qualities through practical exploration.
- To enable students to research, analyse and respond to the work of historical and contemporary artists, craftspeople and designers.
- To develop confidence in selecting and refining materials, techniques and processes in order to create increasingly personal outcomes.
- To encourage critical reflection and evaluation throughout the creative process.
- To enable students to use subject-specific vocabulary confidently when discussing, analysing and evaluating artwork.
- To foster curiosity, resilience and independent thinking through ambitious creative challenges.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Introduction to Still Life: ● Exploring the still life tradition and understanding how artists use everyday objects to communicate ideas and meaning. ● Understanding proportion, scale and perspective within still life drawing. **Drawing Sweet Treats:** ● Exploring cupcakes, sweets and confectionery as observational drawing subjects. ● Understanding line of symmetry and ellipses when constructing cylindrical and circular forms. **Light, Tone and Form:** ● Understanding tonal values and how artists create the illusion of three-dimensional form. ● Identifying highlights, reflected light, shadow and cast shadow. **Surface Qualities:**	● Construct accurate still life drawings using line of symmetry and ellipses. ● Apply a full tonal range to create convincing three-dimensional form. ● Draw transparent, metallic and opaque surfaces with increasing accuracy. ● Create observational studies using a range of monochromatic media. ● Experiment with charcoal, pen and ink, willow charcoal and watercolour. ● Analyse and evaluate the work of Giorgio Morandi and Wayne Thiebaud. ● Produce artist copies inspired by Morandi and Thiebaud. ● Develop mixed media sketchbook pages combining observation, experimentation and annotation. ● Refine work through evaluation and teacher feedback.

● Investigating transparent, opaque and metallic surfaces. ● Understanding how artists adapt tone and mark-making to represent different materials. **Material Experimentation:** ● Exploring charcoal, willow charcoal, pen and ink and watercolour. ● Understanding how media choices affect texture, atmosphere and visual impact. **Introduction to Giorgio Morandi:** ● Exploring Morandi's use of subtle tone, muted colour and carefully arranged still life compositions. ● Understanding how composition and observation can communicate mood. **Introduction to Wayne Thiebaud:** ● Exploring Thiebaud's use of colour, scale and painterly brushwork. ● Investigating his representations of cakes, sweets and food within contemporary still life painting.	
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Colour Theory and Acrylic Painting:** • Understanding primary, secondary and tertiary colours. • Exploring complementary colours, tints, shades and tonal variation. • Understanding how artists use colour to communicate mood and atmosphere. **Painterly Technique:** • Exploring underpainting, layering, blending and brushwork. • Understanding how paint can be applied to create texture and form. **Composition and Visual Organisation:** • Understanding focal point, balance, negative space and overlap. • Exploring the Rule of Thirds within still life composition. **Introduction to Sarah Graham:** • Exploring photorealism and close-up composition. • Understanding how colour, scale and nostalgia contribute to meaning within artwork. **Artist Research and Gallery Studies:** • Exploring the work of David Schab, Gabriele Münter, Paul Cézanne and David Hockney. • Understanding different painterly approaches to still life and composition. **Photography and Personal Response:**	**In addition to the points above:** • Apply colour theory confidently using acrylic paint. • Create painted still life studies showing form, texture and surface qualities. • Experiment with a range of painterly techniques. • Develop compositions using focal point, balance, overlap and negative space. • Produce artist research pages and analytical studies. • Create photography inspired by Sarah Graham. • Refine and develop personal still life compositions. • Produce a sustained final sweet treats outcome informed by artist research and experimentation.

• Exploring still life photography inspired by Sarah Graham. • Understanding composition, lighting, saturation and viewpoint. **Final Sweet Treats Outcome:** • Understanding how artists develop personal responses from research, experimentation and observation. • Exploring how composition, media and artist influence contribute to final outcomes.	
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Natural Forms and Ceramics:** • Exploring natural forms as a source of artistic inspiration. • Understanding how artists investigate shape, structure, pattern and texture within the natural world. **Contemporary Ceramic Practice:** • Exploring the work of ceramic artists and sculptors who draw inspiration from natural forms. • Understanding how artists transform observational studies into sculptural outcomes. **Design Development:** • Understanding how artists generate, refine and develop ideas for three-dimensional work. • Exploring pattern, texture, relief and surface decoration. **Introduction to Clay Processes:** • Understanding the properties of clay as a sculptural material. • Exploring slab construction, joining techniques and relief work. **Surface Decoration:** • Understanding carving, impressing and modelling techniques. • Exploring how texture and pattern can enhance sculptural outcomes. **Glazing and Finishing:** • Understanding colour, surface finish and presentation within ceramic practice.	**In addition to the points above:** ● Produce observational studies of natural forms. ● Develop design ideas inspired by natural structures and textures. ● Create ceramic outcomes using slab construction methods. ● Apply score and slip techniques successfully. ● Build relief and sculptural surface details. ● Use carving, modelling and texturing techniques confidently. ● Apply colour and surface decoration appropriately. ● Evaluate and refine ceramic outcomes throughout the making process. ● Present a finished ceramic outcome demonstrating technical skill, creativity and personal response.

Art Textiles

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Art Textiles GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **ART TEXTILES** at DGGS aims to:

- To encourage in-depth student-led independent research.
- Use prior knowledge to choose suitable artists to study.
- Resource project independently with advice from teachers where necessary.
- Select exhibitions, museums or visit places of interest to resource and source images to inform areas of study, and engage with live art whenever possible
- Understand assessment objectives and be able to identify areas of weakness in work
- Experiment with materials, document processes.
- To use meaningful and insightful annotations to reflect upon aims and outcomes using appropriate academic language and subject-specific terms.
- Design effective final exam outcome & plan and resource a thoughtful, personal response to their chosen title inspired the work of relevant artists.
- Demonstrate refinement of ideas and processes.
- Demonstrate skill-base, resourcefulness and creative rigour in preparatory work and final outcome.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Students will be introduced to a range of new skills including how to use the sewing machine and a number of fabric manipulation techniques. ● Research the work of Ruth Singer and her methods of fabric manipulation. ● Research the work of Kit Vincent and her application of fabric. ● Analyse and form opinions about the work of the textile artists. ● Learn to develop ideas from original artworks. ● Learn how to use annotation meaningfully and insightfully to describe processes and outcomes. ● How to set up and use a sewing machine. ● Develop hand sewing skills. ● Develop smocking, slashing and crashing techniques. ● Develop measuring and accuracy skills.	● Presentation of a visually exciting working sketchbook. ● Creating mood boards. ● Presenting 2D drawings. ● Presenting research of Textile artist. ● How to develop ideas from artists work to learn new techniques. ● Documenting experimentations and annotating processes. ● How to annotate insightfully & link to artists work ● Analysing artists work ● Develop skills in using the sewing machine. ● Develop skills in making fabric more three dimensional
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

In addition to the points above: Students will develop simple printing, sublimation printing and hand dyeing techniques and research the work of artist Ann Roth. ● Develop an understanding of turning a single motif into a repeat pattern. ● Be inspired by the work of Ann Roth and carry out a critical understanding of her work. ● Source relevant imagery. ● Create a final outcome using the acquired knowledge of pattern and sublimation printing.	**In addition to the points above:** Students will be experimenting and refining skills in drawing, printing and the use of fabric dyes. ● Continue to document their process and record ideas in their sketchbooks. ● Use artists work to improve their understanding of visual language. ● Design original prints. ● Refine their work and problem-solve. ● Learn placement of transfer inks and colouring prints to use under the heat press. ● Review and reflect upon work when complete. ● Use subject specific terminology correctly to annotate and describe their investigations and processes.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: Students will take an existing jumper and re fashion it using their knowledge of knitting and crochet. The project aims to get students thinking about taking something old and creating a new exciting product from it. ● Research, analyse and investigate the work of Hope Macaulay. ● Complete a copy of the artist's work. ● Develop skills in knitting. ● Develop skills in crochet. ● Gather relevant imagery. ● Experiment with textures and 3D shapes. ● Design a final response influenced by their chosen artist and research into their theme.	**In addition to the points above:** ● Presentation of a visually exciting working sketchbook documenting their ideas, technique development and research. ● Creating mood boards. ● Presenting 2D drawings. ● Presenting research knit and crochet techniques. ● Know how to complete the following knitting techniques- casting on, rib stitch, garter stitch, increasing and decreasing and casting off. ● Know how to complete crochet techniques- creating a chain and developing skills from here. Some students will go on to do quite complex patterns. ● Develop a Tunisian crochet sample. ● Documenting experimentations and annotating processes. ● How to annotate insightfully & link to artists work ● Analysing artists' work. ● Design and create a final response realising intentions and linking to chosen artists. ● Reflect thoughtful on final outcomes. ● Use subject specific terminology correctly to annotate and describe their investigations and processes.

Biology

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Biology GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **BIOLOGY** at DGGS aims to:

- Develop the ability to make synoptic links between key concepts in Biology.
- Develop practical skills necessary to carry out investigations accurately and safely.
- Become critical thinkers and analyse data from novel contexts to apply knowledge.
- Become independent learners who have the ability to reflect on their work to make progress.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Cell biology ● Cells as the basic structural unit of all organisms; adaptations of cells related to their functions; the main subcellular structures of eukaryotic and prokaryotic cells. ● Stem cells in animals and meristems in plants.	● The fundamental units of living organisms are cells, which may be part of highly adapted structures including tissues, organs and organ systems, enabling living processes to be performed effectively. ● Compare the differences between eukaryotic and prokaryotic cells. ● Use a light microscope to observe, draw and label a selection of plant and animal cells. A magnification scale must be included. ● Recognise, draw and interpret images of cells. ● Calculate the number of bacteria in a population after a certain time if given the mean division time. ● Calculate cross-sectional areas of colonies or clear areas around colonies using πr^2. ● Investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition. ● Use models and analogies to develop explanations of how cells divide. ● Evaluate the practical risks and benefits, as well as social and ethical issues, of the use of stem cells in medical research and treatments.

Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Transport systems** ● The need for transport systems in multicellular organisms, including plants. ● The relationship between the structure and functions of the human circulatory system. ● Enzymes. ● Factors affecting the rate of enzymatic reactions. ● Carbohydrates, proteins, nucleic acids and lipids as key biological molecules.	● Understand the importance of and be able to distinguish between diffusion, osmosis and active transport and understand applications such as why isotonic drinks and high energy drinks are used in sport. ● Recognise, draw and interpret diagrams that model osmosis. ● investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue ● Students should be able to develop an understanding of size and scale in relation to cells, tissues, organs and systems. ● life processes depend on molecules whose structure is related to their function such as enzymes. ● Students should be able to use other models to explain enzyme action. ● Observing and drawing blood cells seen under a microscope. ● Evaluate risks related to use of blood products. ● Evaluate methods of treatment for coronary heart disease bearing in mind the benefits and risks associated with the treatment. ● Interpret data about risk factors for specified 'lifestyle' diseases.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Health and disease** ● The relationship between health and disease. ● Non-communicable diseases in plants and animals. ● communicable diseases including sexually transmitted infections in humans (including HIV/AIDs). ● Bacteria, viruses and fungi as pathogens in animals and plants. ● Body defences against pathogens and the role of the immune system against disease. ● Reducing and preventing the spread of infectious diseases in animals and plants. ● The process of discovery and development of new medicines. ● The impact of lifestyle factors on the incidence of non-communicable diseases.	**In addition to the points above:** ● Describe how different types of pathogens cause disease and be able to analyse and draw conclusions from epidemiological data. ● Evaluate the global use of vaccination in the prevention of disease ● The everyday application of scientific knowledge to detect and identify named diseases in plants and animals. ● The understanding of ion deficiencies allows horticulturists to provide optimum conditions for plants. ● The discovery of penicillin and the emergence of antibiotic resistance ● Understand the purpose of blind, double-blind trials and the use of placebos ● Understand that the results of testing and trials are published only after scrutiny by peer review ● Appreciate the power of monoclonal antibodies and consider any ethical issues. ● Evaluate the advantages and disadvantages of monoclonal antibodies. ● Observation and drawing of a transverse section of leaf.

Business

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Business GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **BUSINESS** at DGGS aims to develop a broad understanding of the range of activities businesses undertake to compete and be successful in the global economy. Key to the course is understanding and developing the skills that managers and leaders need to be successful in business with activities being undertaken to improve students' teamwork, leadership, communication, presentation, thinking and risk-taking skills.

Additionally, the curriculum emphasises critical thinking and problem-solving, encouraging students to evaluate real-world business scenarios and propose viable solutions. Soft skills are cultivated through collaborative projects, presentations, and case studies, enhancing communication, teamwork, and leadership abilities. This holistic approach ensures students are not only well-versed in business concepts but also equipped with essential skills for future academic and career success.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Business in the real world ● The purpose and nature of businesses. ● The different types of Business ownership. ● How businesses set their aims and objectives. ● The impact of stakeholders on a business and vice-versa.	● Evaluate the reasons for starting a business. ● Explain the role of the entrepreneur. ● Understand the different industrial sectors. ● Understand the differences between the different types of Legal ownership. ● Evaluate the advantages and disadvantages of the different types of legal structure. ● Understand the difference between aims and objectives. ● Explain why objectives differ between businesses. ● Understand that businesses use objectives to measure their success (or not). ● Evaluate the impact that stakeholders have on a business. ● Explain how businesses can influence stakeholders.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: ● How businesses choose their location. ● The importance of planning to a business. ● The ways in which businesses grow.	**In addition to the points above:** ● Understand the factors that businesses take into account when choosing their location. ● Explain the purpose of business planning. ● Examine the different sections of a business start-up plan.

	● Evaluate the different ways in which businesses grow (internal vs. external). ● Evaluate the costs and benefits of business growth. ● Understand the importance of economies and diseconomies of scale. ● Understand what is meant by information and communications technology. ● Explain the ways in which businesses use e-commerce. ● Show how businesses use digital technology to communicate with their stakeholders. ● Examine the trade-off between ethics and profit. ● Evaluate the impact of the environment on a business's behaviour.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Business operations** ● The different types of production processes employed by businesses. ● The role played by procurement. ● The importance of quality to a business. ● The importance of good customer service to a business's success.	**In addition to the points above:** ● Evaluate the advantages and disadvantages of job and flow production techniques. ● Explain how production can be made more efficient. ● Explain the concept of lean production and its impact on business efficiency. ● Explain the difference between just-in-time and just-in-case stock control techniques. ● Explain the factors that might determine a business's choice of supplier. ● Examine the effect that procurement and logistics has on a business. ● Understand the importance of having effective supply-chain management. ● Explain the different ways in which businesses measure quality. ● Evaluate the different methods of achieving quality. ● Evaluate the costs and benefits of maintaining quality. ● Understand what is meant by good customer service. ● Evaluate the benefits to a business of good customer service against the costs of bad customer service. ● Show how technology can help to improve customer service.

Chemistry

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Chemistry GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **CHEMISTRY** at DGGS aims to:

- Develop the ability to make synoptic links between key concepts in Chemistry.
- Develop practical skills necessary to carry out investigations accurately and safely.
- Become critical thinkers and analyse data from novel contexts to apply knowledge.
- Become independent learners who have the ability to reflect on their work to make progress.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Atomic Structure and the Periodic Table: ● The development of the model atom. ● The relative electric charges of subatomic particles. ● The size and mass of atoms. ● Electronic structure of atoms and ions. ● How to separate mixtures. ● The development of the Periodic Table. ● Properties of metals versus non-metals. ● Properties of elements in groups 1, 7, 0 and the transition metals. **States of Matter:** ● The three states of matter. ● State symbols. **Nanoscience:** ● Size of particles and their properties. ● Uses of nanoparticles.	● Describe the structure of an atom in terms of subatomic particles. ● Represent elements in equations using symbols. ● Creating balanced chemical equations, including state symbols. ● Calculate the number of protons, neutrons and electrons in an atom or ion. ● Suggest suitable separation and purification techniques for mixtures when given appropriate information. ● Compare the properties of group 1 metals with transition metals. ● Predict properties of elements when given trends down a group. ● Predict the state of a substance at different temperatures. ● Compare 'nano' dimensions to typical dimensions of atoms and molecules. ● Given appropriate information, evaluate the use of nanoparticles for a specified purpose. ● Explain that there are possible risks associated with the use of nanoparticles.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **The Chemistry of the Atmosphere:** ● Composition and evolution of the Earth's atmosphere. ● Greenhouse gases and their effects. ● How human activities contribute to an increase in greenhouse gases in the atmosphere. ● The effects of climate change.	**In addition to the points above:** ● Interpret evidence and evaluate different theories about the Earth's early atmosphere. ● Describe the main changes in the atmosphere over time and some of the likely causes of these changes. ● Describe the greenhouse effect in terms of the interaction of short and long wavelength radiation with matter.

● What is a carbon footprint and how can it be reduced? ● Atmospheric pollutants from fuels. **Structure and Bonding:** ● How do different elements combine together to make molecules and compounds? ● What combination of elements leads to (i) ionic bonding, (ii) covalent bonding and (iii) metallic bonding? ● The properties of ionic compounds, small molecules, giant covalent structures, metals and alloys. ● The bonding of carbon. ● The formation of addition polymers.	● Evaluate the quality of evidence in a report about global climate change given appropriate information. ● Explain the scale, risk and environmental implications of global climate change. ● Describe actions to reduce emissions of carbon dioxide and methane. ● Describe how carbon monoxide, soot (carbon particles), sulphur dioxide and oxides of nitrogen are produced by burning fuels. ● Describe and explain the problems caused by increased amounts of these pollutants in the air. ● Explain chemical bonding in terms of electrostatic forces and the transfer or sharing of electrons. ● Draw dot and cross diagrams to show the bonding in ionic compounds and simple molecules. ● Calculate the charge on the ions of metals and non-metals from the group number of the element. ● Explain the limitations of different models used to represent bonding and structure. ● Explain why alloys are stronger than pure metals. ● Explain how the different ways carbon can bond give different structures and properties.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Using Resources:** ● How we use the Earth's resources. ● Finite versus renewable resources. ● Reducing the use of resources. ● How to obtain potable water. ● Waste water treatment. ● Life cycle assessments. ● Methods of extracting metals. ● Corrosion and prevention. ● Alloys and useful materials. **Chemical Analysis:** ● Purity and analysis. ● Identification of common gases. ● Identification of ions by chemical and spectroscopic means.	**In addition to the points above:** ● Describe the Earth's resources as finite, renewable and non-renewable and explain why. ● Describe how we can use alternatives to reduce our reliance on the Earth's finite resources. ● Describe how water is treated to become potable. ● Describe how waste water is treated before returning to the water supply. ● Evaluate life cycle assessments including any limitations. ● Describe how metals can be extracted from low quality ores. ● Describe the properties and structure of useful materials such as alloys, polymers, ceramics and composites. ● Use melting and boiling point data to distinguish pure and impure substances. ● explain how paper chromatography separates mixtures. ● interpret chromatograms and determine Rf values from chromatograms. ● Describe the tests for hydrogen, oxygen, carbon dioxide and chlorine gas. ● Describe how positive metal ions can be identified using flame tests or the addition of a metal hydroxide. ● Describe the tests to identify the negative ions: carbonates, halides and sulphates. ● State advantages of instrumental methods compared with chemical tests.

Computer Science

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Computer Science GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **COMPUTER SCIENCE** at DGGS aims to develop:

- **Critical Role Awareness**: Ensure students appreciate their critical role in shaping the future of technology
- **Skill Development**: Promote teamwork, debate and discussion, problem-solving, and decision-making
- **Independent Study**: Encourage independent study and research skills outside the classroom
- **Hands-On Experience**: Offer hands-on lab sessions for both hardware and software exploration
- **Competitions and Challenges**: Facilitate participation in coding challenges and competitions
- **Industry Engagement**: Bring in guest speakers from the tech industry
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Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

Programming fundamentals
● Use of variables
● Constant
● Operators
  ● Arithmetic operators
  ● Boolean operators
● Inputs and Outputs
● Assignments
	● Logging on and starting with python.
	● Python basics.
	● Variables and assignment statements.
	● Intro to data types, casting data types.
	● Arithmetic operators, order of operation, boolean /comparison/relational operators.
	● Inputs and Outputs in Python.

Structured programming
● Sequence.
● Selection.
● Iteration.
  ● FOR - Count controlled loop
  ● While, do while, Repeat until - Condition controlled loop
● String Manipulation
● Arrays and Lists
  ● 1D arrays
● Functions and procedures.
● Importing Modules.
● Random number generation.
	● Sequencing in Programming.
	● IF statements and nested if statements.
	● While loops.
	● FOR loops and range.
	● String concatenation, String Slicing.
	● Built in functions on Strings.
	● Use of for loops to handle strings.
	● Formatting strings.
	● Static structure - fixed length arrays.
	● Dynamic structure - Variable length lists.
	● date and time, math, sys, random modules.
	● Create and use random numbers.
	● Use of For loops in dealing with Arrays and Lists.
	● Use of 2D arrays to emulate database tables of a collection of fields and records.
	● Introduce functions and procedures.
	● Use of def to create a function.

	● Docstrings and comments - labelling up a function. ● Extending functions, using parameters and arguments. ● Using functions that return a value. ● Returning multiple values. ● Re-using functions. ● Procedures do not return a value. ● Passing and returning arrays. ● Global variables/constants. ● Local variables/constants.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Arrays and Lists: • 2D arrays • Functions and procedures • Importing Modules • Random number generation **File Handling operations:** • Open • Read • Write • Close • **Practising exam style questions on all the skills learnt:** • Records • SQL • SELECT • FROM • WHERE	● Use of 2D arrays to emulate database tables of a collection of fields and records ● Introduce functions and procedures ● Use of def to create a function ● Extending functions, using parameters and arguments ● Using functions that return a value ● Returning multiple values ● Re-using functions ● Procedures do not return a value ● Passing and returning arrays ● Global variables/constants ● Opening files in Python ● Reading and writing of file ● Closing files in Python ● Practising coding every now and then throughout the year ● Use of records to store data ● Use of SQL commands to search for date

Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

Boolean logic ● Simple logic diagrams using the operators AND, OR and NOT ● Truth tables ● Combining Boolean operators using AND, OR and NOT ● Applying logical operators in truth tables to solve problems	● Knowledge of the truth tables for each logic gate ● Recognition of each gate symbol ● Understanding of how to create, complete or edit logic diagrams and truth tables for given scenarios ● Ability to work with more than one gate in a logic diagram
Algorithms ● Computational Thinking ● Abstraction ● Decomposition ● Algorithmic Thinking ● Designing, creating and refining algorithms ● Identify Inputs, Process and Outputs for a problem ● Structure diagrams ● Pseudocode/high level language ● Flowchart ● Identify common errors ● Trace table ● Searching algorithm ● Binary search ● Linear search ● Sorting algorithm ● Bubble sort ● Merge sort ● Insertion sort	● Principles used to define and refine problems ● Produce simple diagrams to show: ● The structure of a problem ● Subsections and their links to other subsections ● Complete, write or refine algorithms ● Identify logic errors ● Identify syntax errors ● Suggest fixes ● Create and use trace tables to follow an algorithm ● Understand the steps of algorithm ● Apply the algorithm to a data set ● Identify an algorithm

Dance

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Dance GCSE specification. Through the study of GCSE dance students learn to choreograph, perform and appreciate dance as an art form. This holistic engagement with dance informs their development as creative and artistic individuals, and broadens their aesthetic, social and cultural experience.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **DANCE** at DGGS aims to:

- Learn to choreograph, perform and appreciate dance as an art form.
- Develop as creative and artistic individuals and broaden their aesthetic, social and cultural experience through a holistic engagement with dance.
- Create imaginative responses to a range of stimuli.
- Use imagination, problem solving, creativity and the synthesis of ideas.
- Apply knowledge, skills and understanding of choreographic forms and devices.
- Communicate ideas, feelings, emotions, meanings and moods.
- Apply knowledge, skills and understanding of performing.
- Develop physical, technical, mental and expressive skills.
- Communicate choreographic intention and artistry.
- Articulate knowledge and critical reflection to inform artistic practice.
- Critically appreciate dance in its physical, artistic, aesthetic and cultural contexts.
- Critically analyse, interpret, evaluate and appreciate professional dance works.
- Participate in and appreciate dance from more than one style.
- Critically appreciate at least two professional works by at least two choreographers
- Work collaboratively with others.
- Develop knowledge, skills and understanding of health, well-being and safe and professional practice relevant to dance.
- Improve own work through analysis, critical self-reflection and evaluation.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Term One **Contemporary Techniques** ● Key characteristics of Release, Limon and Ballet Technique. ● Key characteristics of an 'excellent' performer. ● How the body can work effectively to move fluently by understanding technical and physical skills. ● How contraction and release in the torso are important for successful performance of Contemporary Dance. ● How to apply skills to their own performance. **Healthy Dancer**	● Demonstrate and understanding of Release, Limon and Ballet technique by successfully participating in and performing these different techniques alone and with others. ● Be able to discuss the characteristics of each style alongside practical performance. ● Learn and perform in a piece of complex Contemporary Dance with confidence. ● Discuss why elements of safe practice are important and the consequences of these areas been

● What constitutes 'safe practice' for a dancer. ● Knowledge of performance skills and how they can be improved. ● How to treat minor injuries and the impact of core skills on reducing the risk. ● Why effective 'warm up' and 'cool down' are important and how to plan effectively. ● Other safe practice considerations: Hydration, Safe Lifting, Health and Nutrition. ● How to plan effective rehearsal strategies.	overlooked. Demonstrate positive safe practice in practical lessons. ● Categorise and define expressive, physical, technical and mental skills alongside suggesting why each is important. ● Suggest rehearsal strategies that could be used to improve performance skills. ● Discuss correct treatment of minor injuries and explain the impact of each stage on the body. ● Discuss the importance of effective 'warm up' and 'cool down', be able to plan them effectively and discuss the changes in the body that occur. ● Explain the importance of hydration on the body. ● Suggest how dancers should lift safely and land appropriately from jumps alongside how the key food groups are important for an athlete.
Creating a Duet ● The order of the Choreographic Process and the importance of each of the stages. ● How to extract and use information from a stimulus as a starting point. ● How to create interesting work to represent a stimulus/theme/intention. ● How to select appropriate Action, Space, Dynamics and Relationships for a purpose and work with complexity when creating them. ● How to make links between a stimulus and practical movement. ● How to use Motif and Motif Development with complex choreographic and structural devices in a duet. ● How to perform with expression to show a stimulus. ● Using contact work safely and with a purpose. ● How to structure choreography effectively with highlights and climax.	● Use Action, Space, Dynamics and Relationships to create a duet appropriate for a stimulus. ● Demonstrate knowledge of choreographic and structural devices in a duet. ● Use Motif and Motif Development effectively to enhance the audience's understanding of choreography. ● Perform with expressive skills to successfully communicate a stimulus.
Choreography ● How to follow the choreographic process when tackling a choreography Section, A question. ● How to use practical knowledge to inform writing about choreography. ● Knowledge of all aspects of choreography; Action, Space, Dynamics and Relationships; choreographic devices; structural devices; motif and motif development included. ● The different types of Performance Environment. ● The different types of Aural Setting and why they may be used. ● How costume, lighting, and setting can support a piece of choreography.	● Demonstrate understanding of choreography in written form in order to answer a Section A question. ● Extract information from a stimulus, suggest ways of demonstrating the idea and explain choice in writing. ● Create choreography with confidence with a partner. ● Create a lengthy piece of Dance that continues to engage the audience's attention through interest and intricacy. ● Explain choices of aural setting with reason and intent. ● Demonstrate knowledge of performance environments and discuss advantages and disadvantages of each. ● Explain why choreographic choices are important and how they can support an idea. ● Suggest appropriate production features to support choreography.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

In addition to the above: **Style and Genre** ● Characteristics of different Dance styles. ● Why a range of Dance Styles exist and where they fit in a timeline of history. ● Events in history that inspired different styles of Dance. ● The meaning of 'style.' ● The difference between Technical, Expressive, Mental and Physical skills. ● Why different skills and more prominent for certain styles of Dance. ● How to perform in different Dance styles. ● How to choreograph in different Dance styles. **Emancipation of Expressionism** ● How to analyse a piece of professional Dance. ● Reasons for choices in choreography. ● The themes/starting points/intentions of a professional work. ● Key motifs and choreographic choices alongside the reasons for these. ● How to approach different types of examination questions. ● How to unpick command words in examination questions.	**In addition to the above:** ● Demonstrate key performance characteristics of different styles. ● Choreograph in different Dance styles with confidence. ● Identify characteristics of Dance styles. ● Suggest key performance skills needed to different Dance styles; verbally and in written form. ● Suggest why key performance skills are important for different Dance styles. ● Categorise key performance skills correctly into four categories, define them and discuss how they could be improved. ● Explore theme and intentions of Emancipation of Expressionism in practical and create/develop pieces of choreography. ● Demonstrate understanding of features of Hip-Hop Dance through performance. ● Be able to respond to exam questions demanding a high level of description, analysis and evaluation.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the above: **Style and Genre** ● Characteristics of different Dance styles. ● Why a range of Dance Styles exist and where they fit in a timeline of history. ● Events in history that inspired different styles of Dance. ● The meaning of 'style.' ● The difference between Technical, Expressive, Mental and Physical skills. ● Why different skills and more prominent for certain styles of Dance. ● How to perform in different Dance styles. ● How to choreograph in different Dance styles. **Emancipation of Expressionism** ● How to analyse a piece of professional Dance. ● Reasons for choices in choreography. ● The themes/starting points/intentions of a professional work. ● Key motifs and choreographic choices alongside the reasons for these. ● How to approach different types of examination questions. ● How to unpick command words in examination questions.	**In addition to the above:** ● Demonstrate key performance characteristics of different styles. ● Choreograph in different Dance styles with confidence. ● Identify characteristics of Dance styles. ● Suggest key performance skills needed to different Dance styles; verbally and in written form. ● Suggest why key performance skills are important for different Dance styles. ● Categorise key performance skills correctly into four categories, define them and discuss how they could be improved. ● Explore theme and intentions of Emancipation of Expressionism in practical and create/develop pieces of choreography. ● Demonstrate understanding of features of Hip-Hop Dance through performance. ● Be able to respond to exam questions demanding a high level of description, analysis and evaluation.

Design and Technology

GCSE Specification

The exam board that the students' study is Edexcel. Please click here for the Design Technology GCSE specification. The study of design and technology seeks to prepare students to participate confidently and successfully in an increasingly technological world; and be aware of, and learn from, wider influences on design and technology, including historical, social/cultural, environmental and economic factors. GCSE Students to work creatively when designing and making and apply technical and practical expertise.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **DESIGN and TECHNOLOGY** at DGGS aims that students will:

- Demonstrate the necessary knowledge, understanding and skills required to undertake iterative design processes of exploring, creating and evaluating.
- Demonstrate mathematical and scientific knowledge
- Produce at least one final made prototype based on a design brief they develop in response to a contextual challenge
- Demonstrate a breadth of technical knowledge and understanding

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
• Use of different design strategies, including: • collaboration, user-centred design and systems • thinking. • Develop and use a range of communication techniques and media to present the design ideas including: freehand sketching (2D and/or 3D), annotated sketches, cut and paste techniques, digital, photography/media, 3D models, isometric and oblique projection, perspective drawing, orthographic and exploded views, assembly drawings, system and schematic diagrams, computer-aided design (CAD) and other specialist computer drawing programs. • The work of past and present designers and companies • Categories of Materials	• Experiment with different design strategies and be able to recognise what types of products they relate to. • Evidence of all the communication techniques in the format of a sketchbook as well as practising exam style questioning in the form of summative and topic tests. • Work through a series of headings including investigate, design, make and evaluate tasks to cover specification criteria. Students will submit completed booklets and a product for assessment as well as conducting summative and topic tests based on the theory content. • Students will work safely in the workshop observing all Health and Safety rules. • Design and make a branding, paper based project

Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: ● Mechanical and Physical Properties of Paper and ● Board, properties include: flexibility, printability and biodegradability. ● Mechanical and Physical Properties of Natural textiles, synthetic textiles. woven textiles, non-woven textiles, knitted textiles, Properties of textiles include: elasticity, resilience and durability. ● Mechanical and Physical Properties of Natural timbers, Manufactured timbers, These properties include: hardness, toughness, durability. ● Mechanical and Physical properties of thermoforming polymers, thermosetting polymers, ● Properties, including: insulator of heat, insulator of electricity, toughness. Use of adhesives	**In addition to the points above:** ● Students will be covering a range of theory-based tasks to cover the content identified using Thinking ● Hard techniques to develop deep knowledge and understanding of these core materials. Students should be able to identify physical and mechanical properties, uses as well as life cycle assessments for each material. ● Work safely with respect for others in the workshop. ● Design and make a clock exploring polymers, life cycle analysis and the work of designers in order to inform their decisions.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: ● Mechanical and Physical Properties of Ferrous metals and Non-Ferrous Metals. Metal properties including: ductility, malleability and hardness. ● Electronics including: Sensors, Control devices and components, and Outputs. ● The performance and functionality of using programmable components. ● How to make use of flowcharts ● How to switch outputs on/off in relation to inputs and decisions ● How to process and respond to analogue inputs ● How to use simple routines to control outputs with delays, loops and counts.	**In addition to the points above:** ● Students design and make an electronic product, creating a working circuit with an input. ● Students will learn soldering and successfully create solder joints between the PCB and the components. ● Students will work safely in the workshop, adding additional machines, materials and processes.

Drama

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Drama GCSE specification. The GCSE AQA specification aims to engage and encourage students to become confident performers. All students devise a piece of theatre, perform extracts from and script and all students study a set text (thinking about the text from a director/ actor and designers' point of view). The written paper aims to further develop their written evaluative and analytical skills of live theatre. Students learn to collaborate with others, think analytically and evaluate effectively. They gain the confidence to pursue their own ideas, reflect and refine their efforts. Whatever the future holds, students of GCSE Drama emerge with a toolkit of transferable skills, applicable both in further studies and in the workplace.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **DRAMA** at DGGS aims to:

- To encourage creative, confident and knowledgeable drama practitioners.
- To encourage in-depth student-led independent research
- Use prior knowledge of drama techniques and performance skills to develop and apply these to their own work.
- For students to understand the discipline of drama and theatre.
- For students to understand a range of theatre styles and practitioners and apply these to their own work.
- Understand how to evaluate and analyse live theatre including the acting, directing and design elements.
- Understand how to analyse and interpret a script; saying how they will direct, stage and perform an extract.
- Understand how to analyse, evaluate and improve their own work and the work of others both verbally and in writing.
- Understand how to work constructively and diplomatically with others in order to achieve successful outcomes.
- Understand how to communicate a specific message or idea effectively through the medium of theatre.
- Understand the theatre roles and staging configurations.
- Understand how the design elements contribute to the whole production.
- Understand the social, cultural, political and historical contexts of all set texts.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Term 1: Notable Theatre Practitioners • Introduction to notable Theatre Practitioners and Companies, Artaud, Brecht and Frantic Assembly Students will undertake group and pair work to explore the styles and techniques and then create a short piece of theatre inspired by practitioners. **Term 1 Theory: The Role of a Lighting Designer**	• Understand how the use of the drama skills (voice, body) helps to communicate character and meaning. • Work in different groups applying skills they have learnt at KS3. • Develop their use of skills and techniques through scripted work. • Understand the various roles within the theatre and when these roles are involved in a production.

• Introduction to the different lanterns, there use, effects and how to design lighting - In preparation for their Component 3 written exam. **Term 2 Practical: Devising** • Students will be introduced to the requirements of component 1; devising • Students will work in groups creating a piece of theatre from scratch. **Term 2 Theory: The Role of a Set Designer** • Introduction to different Stage Configurations, the advantages and disadvantages of using them and how to create and develop a set concept in preparation for their Component 3 written exam.	• Understand the different stage configurations and begin to experiment with these practically. • Use drama vocabulary when evaluating both verbally and in writing.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Term 3: Theory: The role of a Costume Designer • Students will develop their understanding of the process of creating a costume, exploring how texture, cut, shape and material can be used to communicate meaning in preparation for their Component 3 written exam. **Term 3 & 4: The Crucible (Practical and Theory)** • Students will be introduced to their set text for component 3 • Students will explore the characters, themes and style of the play both practically and through written work. • Students will explore Acts 1 and 2 • Students will learn, understand and implement the exam response structure for Questions 1, 2, 3 and 5. • Students will undertake a walk and talk mock so that they gain an understanding of the requirements and timings for the written paper they will undertake in Year 11.	• Gain an understanding of what a practitioner is • Gain influence from others work and pick up new techniques and ways of communicating meaning to an audience • Developing team work skills and working as an ensemble • Understand how to evaluate and analyse live theatre both verbally and in writing • Understand the plotline and characters. • Understand how to analyse and interpret a script; saying how they will direct, stage and perform an extract. • Understand how to analyse, evaluate and improve their own work and the work of others both verbally and in writing. • Understand the requirements and timings for Section A of the written paper
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Term 5 & 6 Practical: Scripted ● Students will work as a whole class to rehearse and perform a script. The teacher will direct and facilitate. This aims to support and prepare students for Comp 2. It also encourages the class to work as an ensemble. This piece will be performed at the Arts & Technology Faculty evening. **Term 5 and 6 Theory: Live Theatre** ● Students will be introduced to Section B of their written paper. They will watch a live or streamed production and will be introduced and begin to develop their written analytical and evaluative skills.	• Work constructively and diplomatically with others in order to achieve successful outcomes • Communicate a specific message or idea effectively through the medium of theatre • Create and communicate effective characters and pieces of theatre • Understand a range of theatre styles and practitioners and apply these to their own work. Understand and apply the techniques and skills needed to develop effective, original and creative pieces of theatre. • Develop their evaluating and analytical skills when reviewing live theatre

English

GCSE Specification

The exam board that the students' study is AQA. Please click here for the English Language GCSE specification and click here for the English Literature GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for ENGLISH at DGGS aims to:

- Have a detailed knowledge and understanding of a wide range of challenging texts including two Shakespeare plays and other Drama, Poetry and Prose texts taken from the English Literary Cannon, World Literature and the Media.
- Be able to independently identify and evaluate complex ideas in written texts and perceptively analyse the effects of a range of methods used by writers to convey these ideas.
- Have a detailed and insightful understanding of how texts relate to the contexts in which they are produced, read and performed.
- Be able to write engaging and sophisticated narratives, descriptions, speeches, articles and letters.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Conflict Unit ● 'Mr Pip' – Lloyd Jones ● 'Out of the Blue' – Simon Armitage ● 'Flag' – John Agard ● Writing: Descriptive ● Speaking and Listening: role play; discussion ● 'Clap When You Land' – Wider Reading text	● Use textual references, including quotations, to support and illustrate interpretations of texts ● Analyse the language, form and structure used by a writer to create meanings and effects ● Show understanding of the relationships between texts and their contexts ● Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences. ● Organise information and ideas, using structural and grammatical features ● Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation. ● Demonstrate presentation skills in a formal setting ● Use spoken Standard English effectively in speeches and presentations.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Drama Unit ● 'The Tempest' or 'Much Ado About Nothing' by William Shakespeare. ● 'Educating Rita' by Willy Russell ● Writing: Narrative Writing/ Writing to Express A Viewpoint	● Use textual references, including quotations, to support and illustrate interpretations of texts. ● Analyse the language, form and structure used by a writer to create meanings and effects. ● Show understanding of the relationships between texts and their contexts

● Reading Sections: English Language Papers 1 and 2. ● Speaking and Listening: discussion	● Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences. ● Organise information and ideas, using structural and grammatical features. ● Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation. ● Demonstrate presentation skills in a formal setting ● Use spoken Standard English effectively in discussions.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Women Through Time Unit ● 'The Unexpected' – Kate Chopin ● 'The Yellow Wallpaper' – Charlotte Perkins Gilman ● 'The Speckled Band' – Arthur Conan Doyle ● 'Porphyria's Lover' – Robert Browning ● 'The Farmer's Bride' – Charlotte Mew ● Non-fiction texts/speeches ● Speaking and Listening: individual presentations	● Use textual references, including quotations, to support and illustrate interpretations of texts. ● Analyse the language, form and structure used by a writer to create meanings and effects ● Show understanding of the relationships between texts and their contexts ● Identify and interpret explicit and implicit information and ideas ● Select and synthesise evidence from different texts ● Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences. ● Organise information and ideas, using structural and grammatical features ● Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation. ● Listen and respond appropriately to spoken language, including to questions and feedback on presentations. ● Use spoken Standard English effectively in speeches and presentations

Ethics (Core)

GCSE Specification

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **Ethics** at DGGS aims to:

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Ethical Theories ● What is meant by "ethics" ● A variety of approaches to deciding what is "right" and "wrong" including: ● Teleological - Utilitarianism - non-religious approach ● Deontological - Natural Law - religious approach ● Virtue Ethics - non-religious approach ● Strengths and weaknesses of these approaches **Medical Ethics** Applying the ethical theories above and their own views to the field of medical ethics, including the topics of: ● Designer babies - definition and advantages and disadvantages for societies and individuals ● Saviour siblings - definition and advantages and disadvantages for societies and individuals ● Drug testing with animals - applying ideas and debate around the quality and sanctity of life ● Medical trials - advantages and disadvantages for societies and individuals	● Use key vocabulary fluidly. ● Identify different approaches to making ethical decisions ● Analyse and evaluate the strengths and weaknesses of each of the approaches through comparison ● Explain detailed knowledge and understanding of religion and non-religious worldviews. ● Systematic enquiry in to significant questions in medical ethics which are addressed by ethical approaches, religions and worldviews ● Evaluate how much control humans should have medically, and whether there is such a thing as "playing God" ● Apply ideas about the value of human life in different medical contexts ● Evaluate the medical responsibilities and duties of parents ● Analyse the risks and benefits of of cutting-edge medical advances ● Applying knowledge to analyse differences and similarities within religious and non-religious beliefs. ● Evaluate the strengths and weaknesses of arguments. ● Construct well informed and balanced arguments about religious and ethical concepts. ● Develop their ability to hear and consider views different to their own and to discuss in a way that promotes tolerance ● Analyse diversity within religious and non-religious responses to ethical issues. ● Consideration of current local, national and global issues

Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Happiness** • Definitions of happiness • Religious perspectives - Christianity and Buddhism • Secular views - humanism • Views on having choice and purpose contributing to happiness, considering the philosophical approaches to therapy of Edith Eger and Viktor Frankl • Altruism - what it is and how it links to religious teachings • Themes in pursuing happiness • Different ways of promoting happiness in the community	**In addition to the points above:** • Ensures all students in KS3 have considered and applied Buddhism to key questions of life (not just GCSE students) • Using sources of wisdom and authority (including scripture) to support understanding of religious and non-religious beliefs. • Evaluating the significance and impact of religious and non-religious beliefs on individuals and communities • Evaluating the impact of religion and worldviews on finding meaning, purpose and happiness.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Media** • How much influence it has • Ethical questions raised by issues regarding the media • What makes comedy offensive • What does it mean to have freedom of speech? • What is censorship and what limits should there be to censorship	**In addition to the points above:** • Identifying human rights • Evaluating the importance of different human rights where they appear to be in conflict, as well as considering solutions to those conflicts • Analysing the strengths and weaknesses of using comedy to comment on religion and worldviews • Analysing the role of sources of authority in managing society

Food Preparation and Nutrition

GCSE Specification

The exam board that the students' study is AQA. Please click here for the GCSE Food Preparation and Nutrition specification. The study of Food Preparation and Nutrition aims to equip students with the knowledge, understanding and skills required to cook and apply the principles of food science, nutrition and healthy eating. They should be encouraged to cook and explore dietary, social and environmental issues that will enable them to make informed decisions about a wide range of further learning opportunities and career pathways as well as develop vital life skills that enable them to feed themselves and others affordably, sustainably and nutritiously, now and later in life.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **FOOD PREPARATION and NUTRITION** at DGGS aims to:

- To equip students with the knowledge, understanding and skills to be able to feed themselves and others better. Students will develop high level practical cookery skills and techniques as they explore the underlying principles of food science, nutrition and health, food traditions, food processing, food choices and food safety. Students will become inquisitive, creative and confident cooks.

In addition, students will be able to;

- Demonstrate effective and safe cooking skills by planning, preparing and cooking using a variety of food commodities, cooking techniques and equipment.
- Develop knowledge and understanding of the functional properties and chemical processes as well as the nutritional content of ingredients, food and drinks.
- Understand the relationship between diet, nutrition, lifestyle and health, including the physiological and psychological effects of poor diet and health.
- Understand the economic, environmental, ethical and socio-cultural influences on food availability, production processes and diet and health choices.
- Demonstrate knowledge and understanding of functional and nutritional properties, sensory qualities and microbiological food safety considerations when preparing, processing, storing, cooking and serving food.
- Know specific skills relating to the preparation and cooking of food including: knife skills, Preparation and techniques, cooking methods, sauces, how to set a mixture, raising agents, dough, how to judge and manipulate sensory properties.
- Understand and explore a range of ingredients and processes from different culinary traditions (traditional British and international), to inspire new ideas or modify existing recipes.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Term 1 and 2- Cake Unit ● Cake making methods and how the ingredients interact to create sensory aesthetics depending on ratios and techniques (creamed, all-in-one, whisked, rubbed in, melted, bread based)	● Demonstrate accurate weighing and measurement of liquids and solids. ● Prepare ingredients and equipment. ● Grease/oil, line, flour cake tins evenly. ● Use the oven for baking.

● How to decorate cakes and fill cakes to improve sensory aspects ● Raising agents; the working characteristics and the functional and chemical properties (Air, steam, CO_2- chemical, biological and mechanical) ● How to research a food design brief and the aspects of lifestyle, diet, nutrition and cuisine and how they inform design of food. ● Eatwell Guide and other health guidelines that inform food and ingredient choices ● Understand religious or cultural factors affecting the cuisine. ● Recognise how the traditional recipes have been adapted to suit today's society.	● Select and adjust the cooking process and length of time to suit the ingredient. ● Test for readiness ● Prepare fruits & vegetables; knife skills ● Sensory analysis and evaluation ● How to present food appealingly ● How to use quality control and health checks to plan practical activities to ensure stringent hygiene and safety applications are met and food is consistent and successful. ● Nutritional analysis of a food product and evaluate to suggest improvements.
Term 3	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Health, Hygiene and Safety** ● Food poisoning bacteria, their symptoms, sources and how to prevent illness. ● Hygiene and safety practices to avoid the cross contamination of bacteria that causes food poisoning. ● How to prepare, cook, serve and store food safely. ● Growth conditions for microorganisms: role of temperature, moisture, food and time ● Control of microorganism growth: temperature control, ph, water availability ● High risk foods: ready to eat moist foods, usually high in protein that easily support the growth of pathogenic bacteria and do not require any further heat treatment or cooking ● Control of enzymic action: blanching of vegetables before freezing, use of acids to prevent enzymic browning ● High risk foods: ready to eat moist foods, usually high in protein that easily support the growth of pathogenic bacteria and do not require any further heat treatment or cooking ● Control of enzymic action: blanching of vegetables before freezing, use of acids to prevent enzymic browning ● Temperatures that impact food safety, cooking and storage and how to check them.	**In addition to the points above:** ● Identify and put into practice safe and hygienic food practices ● To prepare, cook, serve and store food hygienically and safely. ● How to debone a chicken and make meals from all parts, preparing, combining ingredients whilst demonstrating technical skills of preventing cross contamination and handling high risk foods ● To use knives correctly and safely in a range of applications. ● To cook food safely and to check that food meets food hygiene temperature regulations. ● How to work safely in the food room and apply personal, kitchen and food hygiene practices in all parts of a practical lesson. ● Conduct a food science investigation that explores the chemical and physical properties of ingredients and apply the findings to further food preparation and cooking. ● Make soft cheese
Term 4 and 5	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Food, Nutrition and Health** ● Macronutrients, the main sources and impact of excesses and deficiencies. ● Micronutrients (vitamins and minerals) the main sources and impact of excesses and deficiencies. ● High and low biological value protein, and how to use protein complementation. ● A balanced diet and how to use the major commodity groups to make balanced choices.	**In addition to the points above:** ● Identify rich sources of all nutrients as well as the impacts of deficiencies and excesses. ● Adapt recipes to meet the nutritional needs of different life stages. ● Adapt recipes to meet the needs of different cultures, moral choices, medical and religious groups.

● The Eatwell Guide and Healthy Eating guidelines and how to plan meals to meet them. ● The relationship between food intake and physical activity and how to maintain a healthy body weight throughout life. ● Basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements. ● How to calculate energy values and the main sources of energy in the diet. ● Recommended percentage of daily energy intake. ● Sources of energy: protein, fat, carbohydrate and alcohol. ● The relationship between diet and health. ● Diet related health risks and medical issues and how they can be avoided through diet and lifestyle. ● Factors affecting energy requirements, deficiency and excess, including lifestyle, life stage and medical issues. ● Nutrition of starchy carbohydrate foods; source & function. ● Dietary requirements (medical, cultural, moral, religious) ● How to adapt a recipe to meet dietary requirements	● To adapt a recipe or meal plan to meet the government healthy eating guidelines. ● To apply knowledge of nutritional guidelines to answer exam style questions that analyse diet suitability. ● To conduct a detailed nutritional analysis and modelling to create suitably nutritious alternative product ● To use practical skills to make samosas, ensuring high level presentation skills.
Term 6	
Why we cook food, how heat is transferred and how methods of cooking change the food physically and nutritionally. ● The reasons why food is cooked. ● Heat transfer through cooking methods. ● Cooking methods; water-based methods. ● Cooking methods; dry heat and fat-based methods. ● Effect of cooking methods on nutritional value and sensory properties. ● NEA1 practice – research, writing a hypothesis, planning and carrying out a science investigation.	**In addition to the points above**: ● Use a range of cooking methods to experiment on how they change the sensory properties of vegetables. ● Select appropriate cooking methods to ensure nutrition is suitable for different nutritional needs.

French

GCSE Specification

The exam board that the students' study is AQA. Please click here for the French GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **FRENCH** at DGGS aims to:

- To foster pupils' curiosity and deepen their understanding of France and the French-speaking world.
- To broaden students' horizons and encourage them to step beyond familiar cultural boundaries and develop new ways of seeing the world.
- To enable students of all abilities to develop their French language skills to their full potential, equipping them with the knowledge to communicate in a variety of contexts with confidence.
- To fully equip students with knowledge and skills required to embark further study of French.
- To work towards becoming a fluent and spontaneous speaker of French.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
• Language connected to festivals and celebrations, technology, sport, tv and free time. • Using aimer + noun and infinitive • The present tense • Forming and answering questions • The near future tense • The perfect tense • Asking questions in the perfect tense	• To be aware of some events in the Francophone world and to give opinions on these • Talking about your online life and discussing the pros and cons of this • Saying what you do to stay active • Talking about tv viewing habits • Make plans to go out • Respond to invitations • Saying what you did last weekend • Use two tenses together (present and perfect)
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
• Language connected to identity, daily routine, friendship, celebrities, family and festivals and celebrations. • Use emphatic pronouns • Reflexive verbs in the present tense • Sequencers and connectives • Adjectival agreement • Adjectival position • Directo object pronouns • Using the present, perfect and near future tenses together.	**In addition to the points above:** • Talk about your identity • Describe your weekend routine • Be able to extend your sentences • Discuss friends and friendship • Describe your favourite celebrity • Talk about positive role models • Talk about celebrations and traditions
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

In addition to the points above: ● Language connected to school life and languages in the future. ● Comparative adjectives ● Impersonal verb structures followed by the infinitive. ● Irregular verbs in the perfect tense ● The imperfect tense ● Using the imperfect, present and near future tenses together ● Recognising a range of negatives. ● In addition to the above: Exam technique and study skills.	**In addition to the points above:** ● Learn about school life in Francophone countries ● Give opinions on school subjects ● Describe my life at school ● Talk about school rules ● Express opinions and agree and disagree ● Talk about making progress at school ● Talking about what school used to be like when you were younger. ● Talk about learning languages. ● In addition to the above: Know how to revise for the different elements of the GCSE exam and feel well prepared to do these; Be able to make use of a range of IT and other additional resources to support with the above.

Geography

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Geography GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **GEOGRAPHY** at DGGS aims to:

- To give students the opportunity to explore and understand space and place - recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them.
- To encourage students to reflect on how our world is changing and challenge them to consider how their lives have local and global impacts.
- To deepen their understanding of the world's current issues, so that they may play their part in finding future solutions.
- To support students to develop critical thinking, problem-solving and creativity, in the context of real-world problems and challenges.
- To provide students with opportunities to visit and experience the environments that they are learning about in the classroom.
- To develop transferrable skills such as teamwork, problem solving, IT skills, communication skills (presentation, writing, debating) and personal attributes, such as time-management, development of responsibility, coping with uncertainty, self-reflection, motivation, flexibility and creativity.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The Challenge of Natural Hazards – Weather Hazards **Climate change**	• Students will study how global atmospheric circulation helps to determine patterns of weather and climate. They will consider the general atmospheric circulation model: pressure belts and surface winds. Students will learn about how tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions. • Students will learn about how tropical storms have significant effects on people and the environment. • Students will explore how the UK is affected by a number of weather hazards by gaining an overview of types of weather hazards experienced in the UK. • Students will learn the evidence for climate change from the beginning or the Quaternary period to present day. • Students will learn about the possible natural factors and human factors that have caused the climate to

	change and the effects of a changing climate on people and the environment.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Urban Issues and Challenges – Global Populations. **Urban Issues and Challenges – Rio de Janeiro.** **The Living World – Ecosystems.** **The Living World – Tropical rainforests**	● Students will learn how a growing percentage of the world's population lives in urban areas. ● Students will learn how urban growth creates challenges and opportunities for cities in both LIC's and NEE's. They will do this through the study of Rio De Janeiro and learn about how urban planning is improving the quality of life for the urban poor. ● Students will learn about how ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components. ● Students will explore how the tropical rainforest ecosystems have a range of distinctive characteristics. ● They will learn about how deforestation has economic and environmental impacts. Students will focus on how tropical rainforests need to be managed to be sustainable.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The Changing Economic World – Measuring Development. **The Changing Economic World – Development Gap.** **Exploring Nigeria: A Newly Emerging Economy**	● There are global variations in economic development and quality of life. ● Students will explore how various strategies exist for reducing the global development gap. ● Students will learn about the importance of Nigeria's location on a global and local scale. ● They will learn about the political, social, cultural and environmental aspects of Nigeria and how they influence Nigeria's economic development. ● They will find out about how Nigeria's relationships with the wider world have changed as a result of their economic development. Students will learn how Nigeria's economy is changing and how this has created environmental impacts but also affected the quality of life for people in Nigeria.

All Terms	
A variety of skills will be developed. These include:	● Students will cover a range of skills, competencies and methods ● Develop the ability to think 'like a geographer' in order to find out and make sense of the world ● Develop 21st century skills for an information-rich world ● Develop spatial and graphic skills ● Develop creativity ● Develop extended writing ● Develop the ability to use mathematics to improve student understanding of how the world works ● Develop oral skills so that they can talk in a range of contexts and for a variety of purposes in geography using high level academic language

German

GCSE Specification

The exam board that the students' study is AQA. Please click here for the German GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **GERMAN** at DGGS aims to:

- To foster pupils' curiosity and deepen their understanding of Germany and the German-speaking world.
- To broaden students' horizons and encourage them to step beyond familiar cultural boundaries and develop new ways of seeing the world.
- To enable students of all abilities to develop their German language skills to their full potential, equipping them with the knowledge to communicate in a variety of contexts with confidence.
- To fully equip students with knowledge and skills required to embark further study of German.
- To work towards becoming a fluent and spontaneous speaker of German.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
School ● Understanding the school system in Great Britain and the German-speaking world. ● Talking about school subjects and expressing opinions of them. ● Talking about clothes ● Describing school uniform using colour adjectives and giving an opinion of school uniform. ● Discussing school rules. ● Talking about what you are looking forward to in school. ● Talking about special events at school. ● Describing your daily routine. ● Describing school life. ● Understanding the nominative and accusative cases.	● Use definite and indefinite articles in the singular and plural forms to talk and write about clothes. ● Use the present tense of regular and irregular verbs to talk and write about what you study and give opinions on school subjects. ● Use 'weil', 'da' and 'denn' to give and justify opinions on school subjects. ● Use qualifiers to modify opinions. ● Read aloud with accurate pronunciation. ● Present tense with time phrase conveying future ● Use adjective endings with indefinite articles to describe school uniform. ● Know how to describe and compare photos in the speaking exam. ● Use modal verbs: müssen, dürfen and sollen to express permission and obligation. ● Use 'dass' in opinion phrases. ● Giving reasons for your opinions using denn and weil. ● Use the imperfect and perfect tenses to describe past school events. ● Using the verb 2nd rule in sentences beginning with a time phrase. ● Speak and write in the past and present tenses. ● Use the nominative and accusative cases correctly, thus ensuring that correct articles and adjective endings are used.

	● Using reflexive and separable verbs in present, future and past tenses. ● Translate from German into English and from English into German. ● Use complex language and a variety of time phrases and tenses in writing tasks.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Free time: ● Learn about German-speaking musicians. ● Using 'nicht' in a negative sentence. ● Talking about your free time activities. ● Talking about how often you do an activity. ● Expressing preferences. ● Expressing preferences about films and TV shows. ● Using the future tense to describe plans for the future. ● Understanding the 'time-manner-place' rule. ● Using sequencers.	**Free time activities:** ● Use qualifiers, denn, weil and da to give opinions of different music genres. ● Read aloud with accurate pronunciation. ● Understand word order with negatives. ● Use adverbs of frequency, observing the correct word order rules. ● Use the comparative lieber and the superlative am liebsten to express preferences. ● Use separable verbs in the present tense. ● Use the perfect and imperfect tenses together in describing films you have seen. ● Use the future tense to describe future plans. ● Observe the 'time-manner-place' rule. ● Make an account of events more interesting by using sequencers. ● Translate from German into English and from English into German. ● Use complex language and a variety of time phrases and tenses in writing tasks.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Festivals, celebrations, family and relationships: ● Learning about festivals in the German-speaking world. ● Giving opinions of festivals. ● Using possessive adjectives and relative pronouns in the context of describing family members. ● Pronunciation of the German sound: u, ü and y. ● Talking about how well you get on with people and why. ● Using pronouns and possessive adjectives in the dative case. ● Write about a friend using 3 timeframes. ● Describing a family celebration in the past. ● The 'Time-Manner-Place' rule. ● Discussing a party. ● Using two timeframes together: past and future ● Using in + accusative and dative. ● Pronunciation of the German sounds: v, w, z.	**Festivals, celebrations, family and relationships.** ● Recognise and use festival-related vocabulary ● Use a variety of opinion phrases in spoken and written German. ● Describe family members using possessive adjectives and relative pronouns. ● Read aloud with accurate pronunciation. ● Know which case follows different prepositions. ● Use the present, past and future tenses in the context of relationships. ● Use a variety of adjectives to describe family and friends. ● Discuss role models using qualifiers and intensifiers. ● Use past and present tenses in the description of role models. ● Use the perfect and imperfect tenses and the 'Time-Manner-Place' rule to describe family celebrations. ● Form the perfect and future tenses correctly. ● Understand that the accusative case is used after 'in' when there is movement whereas the dative case is used to describe stationary position.

History

GCSE Specification

The exam board that the students' study is Edexcel. Please click here for the History GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **HISTORY** at DGGS aims to:

- To ensure students understand change and continuity across a long sweep of history, including the most significant characteristics of different ages from the medieval to modern periods. They include people, events and developments and reveal wider changes in aspects of society over the centuries and allow comparisons to be made between different periods of history.
- To ensure students understand the complexity of a society or historical situation and the interplay of different aspects within it - these may include social, economic, political, religious and military aspects.
- To ensure students understand the unfolding narrative of substantial developments and issues associated with different periods.
- To ensure students understand the complexity of a society or historical situation and the interplay of different aspects within it – these may include social, economic, political, cultural and military aspects.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	• Procedural Knowledge (What do we want students to be able to do?)
Medieval Era: • Crimes against the person, property and authority, including poaching as an example of 'social' crime. • Changing definitions of crime as a result of the Norman Conquest, including William I's Forest Laws. • The role of the authorities and local communities in law enforcement in Anglo-Saxon, Norman and later medieval England, including tithings, the hue and cry, and the parish constable. • The emphasis on deterrence and retribution, the use of fines, corporal and capital punishment. The use and end of the Saxon Wergild. • The influence of the Church on crime and punishment in the early thirteenth century: the significance of Sanctuary and Benefit of Clergy; the use of trial by ordeal and reasons for its ending. **Early Modern:** • Continuity and change in the nature of crimes against the person, property and authority, including heresy and treason. • New definitions of crime in the sixteenth century: vagabondage and witchcraft.	• Understanding chronology and timelines • Causation: importance of causes, linking and chronology of causes • Change and Continuity: identifying and evaluating in depth • Interpretations and understanding contrast • Similarity and Differences: identification and evaluating the extent of change • Cause and Consequence: identifying and explaining links between events • Evaluating interpretations and creating substantiated arguments • Categorising of causes and creating judgements • Exam skills: 4 marks (describe), 12 mark (explain) and 20 mark (judgement and evaluation).

• The role of the authorities and local communities in law enforcement, including town watchmen. • The continued use of corporal and capital punishment; the introduction of transportation and the start of the Bloody Code. • The Gunpowder Plotters, 1605: their crimes and punishment. Key individual: Matthew Hopkins and the witch-hunts of 1645–47. The reasons for their intensity; the punishment of those convicted. **Industrial Period:** • Continuity and change in the nature of crimes against the person, property and authority, including highway robbery, poaching and smuggling. ● Changing definitions of crime exemplified in the ending of witchcraft prosecutions and treatment of the Tolpuddle Martyrs.	
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Industrial Period: • The role of the authorities and local communities in law enforcement, including the work of the Fielding brothers, development of police forces and the beginning of CID. • Changing views on the purpose of punishment. The use and ending of transportation, public execution and the Bloody Code. Prison reform, including the influence of John Howard and Elizabeth Fry. • Pentonville prison in the mid nineteenth century: reasons for its construction; the strengths and weaknesses of the Separate System in operation. Key individual: Robert Peel – his contribution to penal reform and to the development of the Metropolitan Police Force. **Whitechapel, c1870–c1900: crime and policing** • The local context of Whitechapel, including problems of housing, poverty and crime. The nature of alleys and courts, the standard of housing available and level of overcrowding, the prevalence of lodging houses and pubs, the frequency of prostitution and crime. Problems of employment, the growth of socialism and anarchism. • Tensions arising from the settlement of immigrants from Ireland and Eastern Europe. Pressures caused by the increase in Jewish immigration during the 1880s and the tendency towards segregation. • Problems of policing the slum area of Whitechapel, the rookeries, alleys and courts. Problems caused by alcohol and prostitution and attacks on Jews. Protection rackets, gangs and the work of H Division. The Whitechapel Vigilance Committee.	• Understanding chronology and timelines • Causation: importance of causes, linking and chronology of causes • Change and Continuity: identifying and evaluating in depth • Similarity and Differences: identification and evaluating the extent of change • Cause and Consequence: identifying and explaining links between events • Evaluating interpretations and creating substantiated arguments • Categorising of causes and creating judgements • Exam skills: 4 marks (describe), 12 mark (explain) and 20 mark (judgement and evaluation) • Source analysis skills: Content, Context and Provenance (CCP) • Creating thematic overviews: identifying, evaluating and prioritising key themes and trends
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Whitechapel, c1870–c1900: crime and policing: • Investigative policing in Whitechapel: developments in techniques of detective investigation, including the use of sketches, photographs and interviews;	● Understanding chronology and timelines ● Causation: importance of causes, linking and chronology of causes

problems caused by the need for cooperation between the Metropolitan Police, the City of London Police and Scotland Yard. Dealing with the crimes of Jack the Ripper and the added problems caused by the media reporting of the 'Ripper' murders. • The national and regional context: the working of the Metropolitan Police, the quality of police recruits, the role of the 'beat constable'. The development of CID, the role of the Home Secretary and of Sir Charles Warren, public attitudes towards the police.	● Understanding chronology and timelines ● Causation: importance of causes, linking and chronology of causes ● Change and Continuity: identifying and evaluating in depth ● Similarity and Differences: identification and evaluating the extent of change ● Cause and Consequence: identifying and explaining links between events ● Evaluating interpretations and creating substantiated arguments ● Categorising of causes and creating judgements ● Exam skills: 4 marks (describe), 12 mark (explain) and 20-mark (judgement and evaluation) ● Source analysis skills: Content, Context and Provenance (CCP) ● Creating thematic overviews: identifying, evaluating and prioritising key themes and trends
Modern Period: • Continuity and change in the nature of crimes against the person, property and authority, including new forms of theft and smuggling. • Changing definitions of crime, including driving offences, race crimes and drug crimes • The role of the authorities and local communities in law enforcement, including the development of Neighbourhood Watch. Changes within the police force: increasing specialisation, use of science and technology and the move towards prevention. • The abolition of the death penalty; changes to prisons, including the development of open prisons and specialised treatment of young offenders; the development of non-custodial alternatives to prison. • The treatment of conscientious objectors in the First and Second World Wars. ● The Derek Bentley case: its significance for the abolition of the death penalty.	● Knowledge of local sources relevant to the period and issue, e.g. housing and employment records, Charles Booth's survey, local police records, coroners' reports and photographs and London newspapers. ● Knowledge of national sources relevant to the period and issue, e.g. national newspapers, records of crimes and police investigations, Old Bailey records of trials and Punch cartoons. ● Recognition of the strengths and weaknesses of different types of source for specific enquiries. ● Framing of questions relevant to the pursuit of a specific enquiry. ● Selection of appropriate sources for specific investigations

Mathematics

GCSE Specification

The exam board that the students' study is Edexcel. Please click here for the Mathematics GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **MATHEMATICS** at DGGS aims to:

- To ensure all of our students have high aspirations, think deeply and achieve their personal best academically.
- To provide an engaging, challenging curriculum where students, regardless of age, background, gender or ability develop an enthusiasm for and deep theoretical understanding of mathematics and its relevance to the world around them.
- To provide breadth, stretch and depth in the curriculum to encourage students to become independent thinkers as well as creative and strategic problem solvers, with the skills required to be numerically literate.
- To nurture a sense of curiosity and abstract thinking, as well as an aptitude for forming logical conclusions and problem solving.
- To build resilience in mathematics. Highlighting the importance of making mistakes and learning from incorrect answers, explaining their reasoning and methods to draw out misconceptions.
- To experience the mathematics that is all around and see the beauty of mathematics.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Number ● Standard form ● Indices and Surds ● Fractions and Percentages	● Students will be able to identify the correct subject content for a question and apply key skills accurately to solve the problem. Students make connections between topics and how they develop in complexity. ● To be able to recall and develop concepts from prior knowledge, make connections between topics and apply skills and knowledge to unfamiliar scenarios. ● Calculating (+, -, x, /) with very large and very small numbers in standard form ● Simplify, multiply and divide surds ● Simplify expressions using rules of indices ● Work with fractional and negative indices ● Calculate reverse percentages and repeated percentage changes using multipliers ● Convert recurring decimals and fractions
Algebra ● Algebraic manipulation ● Quadratic equations ● Algebraic Fraction ● Proof	● Expand double and triple brackets ● Factorise expressions into single or double brackets ● Solve problems that require factorisation ● Rearranging formulae

	● Form and solve quadratic equations using factorisation, including the difference of two squares, and the quadratic formula. ● Simplify, multiply and divide algebraic fractions ● Use algebraic manipulations to solve questions ● Write odd, even and consecutive numbers algebraically and complete simple proofs
Geometry ● Similarity of triangles ● Trigonometry - Right angled triangles	● Understand and know the definition of similarity. ● Use the rules to prove similarity including within complex similar triangles. ● Generation of trigonometric ratios (SOHCAHTOA). ● Using trigonometric angles to find missing sides and angles ● Generating and drawing trigonometric graphs. ● Applying trigonometric ratios to solve problems in 2D.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Number** ● Bound ● Ratio and Proportion.	**In addition to the points above:** ● To identify and calculate with upper and lower bounds ● Use ratio techniques to compare scales, calculate best value and exchange rates ● Identify links with ratio to compound measures such as density and speed ● Combine ratios and share in a ratio ● Solve worded problems for direct and inverse proportion
Algebra ● Linear Graphs ● Simultaneous equations	● Solve algebraic direct and inverse proportions problems including powers and roots ● To be able to write the equation straight line ● To be able to identify & name parallel and perpendicular lines ● Form & solve linear simultaneous equations
Geometry ● Perimeter Area and volume ● Circle Theorems	● To be able to solve area and perimeter problems involving complex shapes (all 2D shapes and circles). ● To be able to calculate the volume and surface area of prisms, cylinders, cones, pyramids and spheres. ● Convert between metric units of area and volume. ● Know and apply circle theorems for angles within circles to solve angles problems.
Statistics ● Estimating mean, Cumulative Frequency and Box plots	● Calculate averages from grouped and ungrouped frequency tables ● Construct and interpret cumulative frequency graphs ● Construct and interpret box plots
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

In addition to the points above: **Algebra** ● Quadratic sequence ● Other Graphs ● Inequalities **Geometry** ● Loci and regions ● Angles in polygons ● Transformations **Statistics** ● Probability	**In addition to the points above:** ● To investigate & generate the general rule for a quadratic sequence ● To be able to use the formula to form a sequence ● To be able to write the rule from a sequence ● To be able to draw and interpret the properties for different graphs. Including straight line, quadratic, cubic, reciprocal, exponential, trigonometric functions. ● To be able to solve linear inequalities and show them on a number line ● To be able to draw standard constructions (perpendicular bisector, angle bisector, perpendicular from a point to a line & perpendicular from a point on a line). ● To understand what a locus is ● To be able to use construction techniques to identify regions that satisfy a combination of loci ● Investigate & derived the angle rules for polygons ● Use the angle rules for polygons to solve angle problems ● To complete and describe rotations, reflections, translations and enlargements including negative and fractional scale factors. ● To be able to complete and describe combined transformation ● Understand the language of probabilities and solve simple probability questions ● Design, complete and interpret Venn diagrams and two-way tables ● Construct and use tree diagrams to solve independent and conditional probability questions

Modern Society

GCSE Specification

There is no examination for this course.

Subject Curriculum Intent

In Modern Society, our goal as teachers is to carefully balance the teaching of a rich and broad range of content inspired by the history and geography of the 20th century with the development of analytical skills.

To understand the 21st century world that pupils live in, we examine three themes:

a) The Nature of Medicine and Disease in Modern Society (History and Geography)
b) The Nature of Power and Borders in Modern Society (History and Geography)
c) The Nature of Migration and Development in Modern Society (History and Geography)

We focus on substantive knowledge - that is, the historical and geographical facts we teach our students form an in-depth breakdown of the key turning points in our global post-1945 history - and disciplinary knowledge, including concepts that transform facts into historicised knowledge (Change/Continuity/Cause/Consequence/Similarity/Difference/Significance) and geographical knowledge (sovereignty, borders, inequality, treaties, disease of poverty, disease of affluence, immunisation, migration, immigration).

Throughout Modern Society lessons, students make connections, draw contrasts, analyse trends, frame historically-valid questions, and create their own written narratives and analyses. Our content is rooted in the History National Curriculum, specifically 'Challenges for Britain, Europe and the Wider World from 1901 to the Present Day). In addition, we also address the Geography National Curriculum by exploring the following:

1. Locational Knowledge: pupils extend spatial awareness of India, Singapore, Vietnam and Russia.
2. Human Geography: pupils examine populations, urbanisation and international development.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The History of Medicine & Geography of Disease in the 20th Century ● WWI: Injuries at the Front and Transporting the Wounded ● WWI: Treating the Wounded and New Treatment Methods ● 20th Century: The Discovery of DNA ● 20th Century: Lifestyle Choices and Disease ● 20th Century: Modern Treatments ● 20th Century: The Creation of the NHS ● 20th Century: Government Public Health and the ● Prevention of Disease Why did the world split between East and West after the Second World War?	● Understanding chronology and timelines ● Causation: importance of causes, linking and chronology of causes ● Change and Continuity: identifying and evaluating in depth ● Interpretations and understanding contrast ● Similarity and Differences: identification and evaluating the extent of change ● Cause and Consequence: identifying and explaining links between events ● Evaluating interpretations and creating substantiated arguments ● Categorising of causes and creating judgements ● Exam skills: describe, explain and judgement/ evaluation questions.

	● Geography Key Terms: Infectious, Non-Infectious, Communicable, Non-Communicable, Malaria, HIV/AIDS, Cardiovascular Diseases, Immunisation Programmes, Disease of Poverty, Disease of Affluence
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The History of Superpowers & Geography of Borders in the Cold War ● Cold War: Capitalism and Communism ● Cold War: The Atomic Bomb, Hiroshima and Nagasaki ● Cold War: Satellite States and the Iron Curtain ● Cold War: The Berlin Blockade and Berlin Airlift ● Cold War: The Arms Race and Space Race ● Cold War: The Collapse of the Iron Curtain and Fall of the USSR	● Understanding chronology and timelines. ● Causation: importance of causes, linking and chronology of causes. ● Change and Continuity: identifying and evaluating in depth. ● Similarity and Differences: identification and evaluating the extent of change. ● Cause and Consequence: identifying and explaining links between events. ● Evaluating interpretations and creating substantiated arguments. ● Categorising of causes and creating judgements. ● Exam skills: describe, explain and judge /evaluate questions. ● Source analysis skills: Content, Context and Provenance (CCP). ● Creating thematic overviews: identifying, evaluating and prioritising key themes and trends.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The History of Migration & Geography of Development in Modern Society ● Migration: The Partition of India, 1947 (India and Pakistan) ● Migration: The British Nationality Act 1948 (Caribbean) ● Development: The Bristol Bus Boycott ● Development: LGBTQ+ Rights in the 20th and 21st Centuries ● Development: The New Cross Fire and Steven Lawrence Case ● Development Case Study: The Development of Singapore	● Understanding chronology and timelines. ● Causation: importance of causes, linking and chronology of causes. ● Change and Continuity: identifying and evaluating in depth. ● Similarity and Differences: identification and evaluating the extent of change. ● Cause and Consequence: identifying and explaining links between events. ● Evaluating interpretations and creating substantiated arguments. ● Categorising of causes and creating judgements. ● Exam skills: describe, explain and judgement/ evaluation questions. ● Source analysis skills: Content, Context and Provenance (CCP) ● Creating thematic overviews: identifying, evaluating and prioritising key themes and trends.

Music

GCSE Specification

The exam board that the students' study is Eduqas. Please click here for the Music GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **MUSIC** at DGGS aims to:

- Nurture and inspire students to develop a love of music, to increase self-confidence, creativity and sense of achievement.
- Critically listen and evaluate their own and others music with increasing awareness, identifying and describing the musical elements with sophistication (melody, pitch, tempo, rhythm, texture, sonority, dynamics, tonality and harmony) that underpin musical analysis.
- Compose and perform in a range of styles, genres and traditions specially: western classical music, jazz and blues, film music and popular music.
- Develop practical skills as a soloist and in an ensemble to build both independence and collaboration.
- Develop vocal and instrumental skills to perform with a high level of musicality, fluency, accuracy and expression.
- Promote high aspirations, thinking deeply and striving for students to reach their personal best regardless of background or previous experience.
- Build resilience whilst stretching and challenging students to strive for excellence
- Reflect and appreciate the diverse heritage of music and how music is used in the expression of personal and collective identities.
- Broaden musical experiences and interests, develop imagination and foster creativity

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Appraising – AoS1: Forms and Devices ● Know the different musical forms and sections (binary, ternary, minuet & trio, rondo, variation, strophic, verse-chorus, 12-bar blues) ● Know the definitions and how to apply compositional devices (repetition, anacrusis, imitation, sequence, syncopation, drone/pedal, ● canon, broken chords, albert bass) **Appraising – AoS2: Ensemble Chamber Music** ● Know the composers, dates and stylistic features for ● Baroque, Classical and Romantic music ● Know about the instruments in an orchestra and how this developed from 1600-1900 **Texture** ● Know how to work out how many different parts/roles are playing in a given extract.	**Appraising** ● How to use the musical elements as building blocks for analysis and composition ● Aurally identify different sections within pieces and which structures link to different styles ● Aurally recognise the use of compositional devices ● Be able to describe texture, melody and dynamics from an extract of music **Composition** ● Create a 'composing sketch book' ● Create a simple 4-8 bar melody in staff notation (adding Q&A phrases and sequences) ● Develop melody writing to fit with lyrics and syllabus ● Understand which chords fit with a simple melody and how to develop these chords to add interest.

● Know how to recognise the differences between	
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Tempo, Metre and Rhythm ● Know the difference between simple and compound time ● Know how to recognise the tempo and describe using the Italian musical terminology ● Describe how the tempo changes ● Know the different names and values of rhythmic notation. **Tonality and Harmony** ● Recognise the key from the /sharp flat key signature ● Know about the circle of 5ths ● Know the degrees of the scale and how to deconstruct and label chords (using roman numerals/figured bass abbreviations) to carry out harmonic analysis ● Know the four different cadence progressions and how to recognise them in a given piece of music ● Know about inverted and extended chords	Appraising ● Aural skills: be able to notate a 4-beat pattern; recognising intervals and notate a short melody; recognise chord progressions that make up a cadence. ● Identify different time signatures and tempi in a given extract of music ● Identify different types of rhythms and be able to add up the beats. ● Work out intervals between two pitches ● Work out the key and any modulations from a key signature ● Be able to work out relationship between keys (major to relative minor) ● Be able to label chords using roman numerals **Composition** ● Use ICT/ Music technology – MuseScore notation software ● Create a lead sheet for a pop song (lyrics, melody, chords, bass riff, optional drum beat) **Performance** ● Record an ensemble performance (duet/trio) ● Apply the exam board assessment criteria for peer assessment
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Sonority ● Know the instruments in an orchestra and which family they belong know about different playing techniques **AoS3: Film Music – Introduction to Film** ● Know the context and background to film music and its evolution over the 20th and 21st Century ● The effect of audience, time and place ● Know about the use of minimalist techniques in film music ● Know how the musical elements can be exploited for portray different moods/actions	**Appraising** ● Be able to describe different articulation and playing techniques ● Recognise different instruments and what they are doing in a given audio extract. ● Know how to identify the use of the musical elements in a film extract **Composition** ● Create a short minimalist piece on xylophones exploited specific compositional techniques ● Create a binary form piece in the style of a waltz following a provided chord structure **Performance** ● Record a solo performance ● Apply the exam board assessment criteria for peer assessment

GCSE Physical Education

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Physical Education GCSE specification. The study of Physical Education will enable students to develop knowledge and understanding of the key body systems and how they impact on health, fitness and performance in physical activity and sport. Students will also develop knowledge and understanding of the psychological factors that can affect performers in physical activity and sport. The non-exam assessment (NEA) for this course is split into two strands: a practical performance, and an analysis and evaluation of a performance. Students will learn to develop an ability to acquire and develop a range of skills, techniques and tactics in a variety of sports.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **PHYSICAL EDUCATION** at DGGS aims to:

- Demonstrate skills in physical activity and sport, applying appropriate technique(s).
- Demonstrate and apply appropriate decision-making skills and strategies
- Consider personal strengths and weaknesses
- Demonstrate ideas and problem-solving solutions
- Demonstrate psychological control to achieve successful performance
- Demonstrate etiquette and adhere to 'rules' and health and safety guidelines

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The structure and functions of the musculoskeletal system **The relationship between health and fitness and the role that exercise plays in both** **The components of fitness, benefits for sport and how fitness is measured and improved**	• Bones • Structure of the skeleton • Functions of the skeleton • Muscles of the body • Structure of the synovial joint • Types of freely moveable joints. • How joints differ in design to allow certain types of movement at a joint. • How the major muscles and muscle groups of the body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major moveable joints. • Health and fitness. • The relationship between health and fitness. • The components of fitness. • Linking sport and physical activity to the required components of fitness. • Reasons for and the limitations of fitness training. • Measuring the components of fitness. • Demonstration of how data is collected for fitness testing. • Revisit sports to develop and refine performance.

NEA: practical performance	

Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The principles of training and their application to personal exercise/ training programmes	• The principles of training and overload. • Application of the principles of training. • Types of training. • Identification of the advantages and disadvantages (the effects on the body of training types linked to specific aims).
How to optimise training and prevent injury	• Calculating intensities to optimise training effectiveness. • Considerations to prevent injury. • Specific training techniques – high altitude training as a form of aerobic training. • Seasonal aspects.
Effective use of a warm up and cool down	• Warming up and cooling down.
The structure and functions of the cardio-respiratory system	• The pathway of air. • Gaseous exchange. • Blood vessels. • Structure of the heart. • The cardiac cycle and the pathway of the blood. • Cardiac output, stroke volume and heart rate. • Mechanics of breathing – the interaction of the intercostal muscles, ribs and diaphragm in breathing. • Interpretation of a spirometer trace.
NEA: practical performance	• Revisit sports to develop and refine performance.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
The short and long term effects of exercise	• Immediate effects of exercise (during exercise). • Short term effects of exercise (up to 36 hours after exercise). • Long term effects of exercise (months and years of exercising).
Examination technique in preparation for summative assessments	• Review content and skills from years 9 and 10.
NEA - practical performance	• Revisit sports to develop and refine performance.

Core Physical Education

Curriculum Summary

In Terms 1-4 students are on a rotation of each activity

Terms 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Students will build on and embed the physical development and skills learned in key stages 1 and 2, become more competent, confident and expert in their techniques, and apply them across different sports and physical activities. They will understand what makes a performance effective and how to apply these principles to their own and others' work. They will develop the confidence and interest to get involved in exercise, sports and activities out of school and in later life, and understand and apply the long-term health benefits of physical activity. **Activities that students complete to fulfil the content knowledge:**	Students will be able to: • Use a range of tactics and strategies to overcome opponents in direct competition through team and individual games [for example, badminton, basketball, cricket, football, hockey, netball, rounder's, rugby and tennis] • Develop their technique and improve their performance in other competitive sports [for example, athletics and gymnastics] • Take part in outdoor and adventurous activities which present intellectual and physical challenges and be encouraged to work in a team, building on trust and developing skills to solve problems, either individually or as a group analyse their performances. • Demonstrate improvement to achieve their personal best • Take part in competitive sports and activities outside school through community links or sports clubs.

Terms 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural knowledge (What do we want students to be able to do?)**
Sport Education	Volleyball Teamwork Leadership
Trampolining	Skill development (straight bouncing, shapes, Seat landing, Swivel hips, back landings, somersaults) Routine performance
Badminton	Singles and doubles play Skill development (control, overhead clear, smash, serving, forehand and backhand)
Games	Rugby, Netball, Football, Basketball
Personal Survival and Lifesaving	Pool safety, entries, floating, HELP position, sculling, surface dives, HUDDLE, long distance swim, responding to scenarios. Lifesaving backstroke, rescues.
Fitness	Circuits, aerobics, boxercise, fartlek, continuous, interval training, strength and conditioning, training programmes.

Volleyball	Skill development (Volley, Dig, Spike, Serve) Rules and match play
Terms 5 and 6	
Content Knowledge (what do we want students to know?) **Procedural Knowledge (What do we want students to be able to do?)**	
Athletics	Throws (Shot Putt, Javelin) Jumps (High Jump, Long Jump) Runs (100m, 200m, 800m, 1500m, Relay)
Rounder's **Cricket**	Batting, fielding and catching Match play and rule development.
Tennis	Skill development (ground strokes, volley, smash, lob, serve) Game play – tactics and rules. Singles and doubles play

Physics

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Physics GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **PHYSICS** at DGGS aims to:

- Develop the ability to make synoptic links between key concepts in Physics
- Develop practical skills necessary to carry out investigations accurately and safely
- Become critical thinkers and analyse data from novel contexts to apply knowledge
- Become independent learners who have the ability to reflect on their work to make progress

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Energy ● Energy stores and systems ● Changes in Energy: Gravitational Potential Energy and Kinetic energy. ● Changes in energy: Elastic potential energy. ● Power. ● Energy transfers in a system. ● RP2 Effectiveness of insulators (types of insulator). ● Efficiency. ● Energy resources and fossil fuels ● Power stations ● Renewable energy resources ● Meeting energy demands and environmental impacts **Electricity** ● Standard circuit diagram symbols ● Electric charge and current ● Current, resistance and potential difference ● RP3 (part 1) Investigate the effect of length on resistance. ● Power ● Energy transfers in everyday appliances **Forces** ● Scalars and vectors ● Contact and non-contact forces ● Gravity ● Resultant forces ● Drawing scale diagrams ● Work done and energy transfer	● Know the eight stores of energy and four energy transfer pathways. ● Understand the conservation of energy ● Use relevant equations to calculate energy and know how to utilise the conservation of energy in calculations. ● Understand that power is the rate at which work is done ● Understand how heat is transferred between objects and how different materials have different thermal conductivities. ● To be able to conduct a required practical investigation into investigating the effectiveness of different insulating materials and thicknesses. ● To understand how to use efficiency when calculating energy and power and to apply the knowledge qualitatively to explain why some systems are more efficient than others. ● To understand the functions of non-renewable energy resources (fossil fuels and nuclear power) and know their advantages and disadvantages. ● To understand the functions of renewable energy resources (biofuel, wind, solar, wave, tidal, hydroelectric, geothermal) and know their advantages and disadvantages. ● To understand how the national grid delivers energy and how they can meet demand ● To know standard circuit symbols and how to draw them into a circuit ● To know the definition of electrical current and apply its equation ● To know the definition of potential difference and apply Ohm's Law alongside current and resistance

	● To conduct a required practical investigation into how resistance of a wire is affected by its length. ● To use equations for electrical power and energy transfer in wires and devices. ● Understand the differences between scalar and vector quantities. ● To name some contact and non-contact forces ● Understand how gravity produces a force on masses and use the weight equation. ● Understand how to add vectors together and determine resultant forces. ● How to use scale diagrams to determine resultant forces at angles. ● To calculate mechanical energy transfer (work done) using force and distance.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Forces (continued) ● Forces and elasticity ● RP6 Investigate the relationship between force and extension ● Stopping distance and reaction time ● Factors affecting braking distance **Particle Model of Matter** ● Density ● RP5 Density ● Changes of state **Waves** ● Transverse and Longitudinal waves ● Properties of Waves ● Time period and frequency ● Wave speed equation ● RP8 Waves in a ripple tank ● RP8 Waves on a string ● Electromagnetic waves **Atomic Structure** ● The Structure of the atom ● Mass number, atomic number and isotopes ● The development of the model of the atom	● Understanding force affects extension for elastic objects and Hooke's Law. ● To conduct a required practical investigation into how force affects extension for a spring. ● To know what determines the stopping distance of a car and the factors that can affect it ● Calculate stopping distances at speeds if the braking and thinking distances are known at a different speed. ● To understand what determines an object's density and how to calculate it. ● Learn the methods on how to determine the density of a regular object, irregular object and a liquid. ● To conduct a required practical investigation into determining densities of regular objects, irregular objects and liquid. ● To describe the three states of matter and how they are different in terms of forces of attraction, arrangement, movement and energy. ● To know the names and processes that go into state changes ● Describe the differences between transverse and longitudinal waves, give examples and how they are related to mechanical and electromagnetic waves. ● To describe waves in terms of wavelength, time period, amplitude and frequency for both transverse and longitudinal waves. ● To know and apply the equation for wave speed. ● To investigate wave speed for waves in water and waves on a string as a required practical. ● To know the electromagnetic spectrum and the difference of electromagnetic waves on that spectrum. ● To understand the structure of the atom and the definitions of isotope, ions and understand how electrons can transition between energy levels. ● To know how to read nuclear (chemical) notation ● To understand the history of the atom and the order in which particles are discovered
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

Atomic Structure (continued) ● Alpha particle scattering experiment ● Radioactive decay and nuclear radiation ● Measuring background radiation (sources and types) ● Properties of alpha, beta and gamma radiation and Activity ● Nuclear equations ● Radioactive contamination ● Background radiation ● Use of radiation (smoke alarm, paper thickness, tracers) ● Medical uses of radiation (medical tracers, X rays, radiotherapy) ● Half-life and the random nature of radioactive decay and carbon dating ● Different half-lives of radioactive isotopes ● Fission and fusion **Magnetism and Electromagnetism** ● Poles of a magnet ● Magnetic Fields ● Electromagnetism - Magnetic field around a current carrying wire & right-hand grip rule	● Have a grasp of the importance of the plum pudding model and Rutherford Alpha scattering experiment in the development of the atomic model. ● To understand alpha, beta and gamma decay in how they are produced and the differences between them. ● Know how to measure background radiation and how to measure the count-rate of a sample ● Definition of activity and count-rate. ● To complete Nuclear equations for alpha and beta decay. ● To know the definitions and differences between contamination and irradiation. ● To know the causes of background radiation and how it can affect public health. ● Know some of the uses of alpha, beta and gamma radiation in different disciplines. ● To understand half-life, its definition, and how it can be determined graphically and from numerical data. ● Know the importance of half-life in determining the age of a sample. ● Know what half-lives are suitable for different circumstances. ● To know how to explain the process of nuclear fission and nuclear fusion in the nuclear energy industry. ● To know how to determine the poles of a magnet. ● How to draw magnetic field lines around a magnet and current carrying wire. ● To know the nature of the magnetic field produced by a current carrying wire. ● How to build and test electromagnets

Psychology

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Psychology GCSE specification. The study of psychology is an engaging opportunity to understand human behaviour and cognition. The subject encourages students to question their own views on the causes for their behaviour and inevitably begin to discuss whether they truly have free will or whether their behaviour is predetermined. Psychology encourages students to be more open-minded as they are presented with more than one explanation for a particular behaviour and teachers enable students to develop, evaluative and compare skills so that students can create arguments in support or challenge of particular theories based on available evidence. Students are taught the topic of research methods which enables them to conduct their own research and test these ideas for themselves. Overall, the course helps students to develop a greater understanding of themselves as well as their relationships and communication with others. The GCSE course provides a comprehensive introduction to many of the core areas of psychology that prepare students for further study later in life.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **BIOLOGY** at DGGS aims to:

- Be aware of key areas and approaches within psychology, such as developmental psychology and social psychology.
- Know and understand how psychologists conduct research and the particular decisions that need to be made in order to design effective research studies.
- Know and understand specific significant theories, theorists and research studies that have informed our beliefs about behaviour for a number of years.
- Know and understand how to effectively evaluate theories and research studies that are discussed with a particular emphasis on what this means for the reliability and/or validity of that theory or study.
- Know and understand the basic principles of biological psychology, including the communication of neurons using neurotransmitters and the role that specific areas of the brain play in our processing of the world.
- Apply mathematics to the study of psychology, including an understanding of measures of central tendency and dispersion and how to draw graphs.
- Design their own small-scale studies under exam conditions with prompts from the exam board.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Introduction to psychology. ● What is psychology? **Social influence (3 lessons a fortnight)**: ● Social (group size, task difficulty, anonymity) and dispositional (personality, expertise) explanations of conformity. ● Asch's conformity study (1956)	● Identify key evaluative strengths and weaknesses for psychological studies and theories ● Summarise key studies and theories for purposes of exam questions ● Use key terminology that is introduced in this term appropriately

● Social (agency, authority, culture, proximity) and dispositional (personality) explanations of obedience. ● Social (presence of others, cost of helping) and dispositional (similarity to victim, expertise) explanations of prosocial behaviour. ● Piliavin's subway study (1969). **Research methods in psychology (1 lesson a fortnight):** ● Creating and testing hypotheses. ● Choices of research methods including experiments (laboratory, field, natural) and questionnaires. ● Strengths and weaknesses of the research methods named above. ● Experimental designs and the strengths and weaknesses of each ● How to select a sample and the strengths and weaknesses of each ● Ethical issues within psychological research	● Structuring exam style questions, including simple "describe and evaluate" 9-mark exam style questions. ● Apply their knowledge of this topic to new scenarios E.g. specific obedience scenarios in school or in history. ● Begin to justify their choices of particular research, methods and options using the strengths of their choice, or the weaknesses of an alternative. ● Begin to evaluate research studies based on the research method choices that have been made. ● Understand and identify if/when an ethical guideline has been broken by a researcher. ● Explain <u>how</u> to use particular methods e.g. how to use the different sampling techniques to obtain participants.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Social influence (3 lessons a fortnight - continued) ● Social (social loafing, deindividuation) and dispositional (personality, morality) explanations of crowd and collective behaviour. **Memory (3 lessons a fortnight)** ● What is memory and how do we process memories (input, storage, retrieval, encoding). ● Different types of long-term memory (semantic, episodic, procedural). ● Multistore model of memory, including the processes that move information from each of the three stores (sensory, short term, long term). ● Murdock's serial position curve study (1962). **Research methods in psychology (1 lesson a fortnight)** ● Choices of research methods including observations, interviews and case studies. ● Strengths and weaknesses of the research methods named above. ● Correlational studies- what they are, why they are different from experiments, when to use them and their strengths and weaknesses. ● How to collect and analyse data (mean, median, mode etc).	● Identify key evaluative strengths and weaknesses for psychological studies and theories. ● Summarise key studies and theories for purposes of exam questions. ● Use key terminology that is introduced in this term appropriately. ● Structuring exam style questions, including simple "describe and evaluate" 9-mark exam style questions. ● Apply their knowledge of research methods to these topics E.g. how to conduct studies on memory. ● Analyse data and draw conclusions based on the data. ● Feel confident in justifying their choices of particular research methods options using the strengths of their choice or the weaknesses of an alternative. ● Feel confident in evaluating research studies based on the research method choices that have been made.
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
Research methods in psychology (1 lesson a fortnight) ● How to improve the validity and reliability of your study E.g. controlling extraneous variables, randomisation, standardisation etc. ● How to design your own research studies. **Memory (3 lessons a fortnight – continued):** ● Factors affecting memory including serial position, interference, context and false memories. ● Theory of reconstructive memory. ● Bartlett's "War of the Ghosts" study (1932). **Revision of content from this year.**	● Identify key evaluative strengths and weaknesses for psychological studies and theories. ● Summarise key studies and theories for purposes of exam questions. ● Use key terminology that is introduced in this term appropriately. ● Structuring exam style questions, including simple "describe and evaluate" 9-mark exam style questions. ● Apply their knowledge of research methods to this topic E.g. how to conduct studies on memory. ● Recommend alterations to studies in order to improve their reliability or validity.

	● Know when a particular method may or may not be appropriate for a particular scenario. ● Apply their knowledge of research methods to new scenarios E.g. designing a research study into… ● Structuring 'designing research' study short exam style questions.

Religious Studies

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Religious Studies GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **RELIGIOUS STUDIES** at DGGS aims to:

- To enable students to take their learning as far as possible, and beyond the KS4 curriculum to see how it connects to the wider world as they know it and to the future wider world.
- To embed a sense of curiosity about the world and people, including identifying and challenging prejudices and misconceptions in themselves.
- To ensure students become philosophical thinkers who are able to view the world and other curriculum areas through a philosophical lens.
- To embed independent thought and responsibility for being active thinkers.
- To take creative approaches to representing and exploring abstract and nuanced religious, philosophical and ethical ideas.
- To ensure students visit relevant places of worship and speak with members of the faith communities which they are studying.

Beyond the examination specification, our core Religious Studies aims to:

- Be relevant to pupils' needs and to the rest of their curriculum, and provide opportunities for pupils to: reflect on, express and justify their own opinions in light of their learning about and from religion and their study of religious, philosophical, moral and spiritual questions.
- Synthesise their own and others' ideas and arguments about sources of wisdom and authority using coherent reasoning, making appropriate references to their historical, cultural and social contexts.
- Develop their own values and attitudes in order to recognise their rights and responsibilities in light of their learning about and from religions and worldviews
- Relate their learning to the wider world, gaining a sense of personal autonomy in preparation for adult life.
- Develop skills that are useful in a wide range of careers and in adult life generally, especially skills of critical enquiry, creative problem-solving, and communication in a variety of media.
- To provide opportunities for students to develop leadership skills through representing and sharing their religious and non-religious worldviews, values and practices.

Curriculum Summary

Term 1 and 2	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**

Buddhist beliefs ● The concept of Dhamma (Dharma) ● The concept of dependent arising (paticcasamupada). ● The Three Marks of Existence: anicca, anatta, dukkha. ● The human personality, in the Theravada and Mahayana traditions. ● Human destiny and the different ideals in Theravada and Mahayana traditions. ● The Buddha's life and its significance: the birth of the Buddha and his life of luxury. The Four Sights. The Buddha's ascetic life. The Buddha's Enlightenment. ● The Four Noble Truths	● Use key vocabulary fluidly ● Explain detailed knowledge and understanding of religious beliefs. ● Using sources of wisdom and authority (including scripture) to support understanding of religious beliefs. ● Applying knowledge to analyse differences and similarities within religious beliefs. ● Evaluating the significance and impact of religious beliefs on individuals and communities. ● Evaluate the strengths and weaknesses of arguments. ● Construct well informed and balanced arguments about religious concepts.
Term 3 and 4	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Christian beliefs:** ● God is omnipotent, loving and just, and the problem of evil and suffering. ● The oneness of God and the Trinity: Father, Son and Holy Spirit. ● Different Christian beliefs about creation including the role of Word and Spirit (John 1:1–3 and Genesis 1:1–3). ● Different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell. ● The incarnation and Jesus as the Son of God ● The crucifixion, resurrection and ascension ● Sin, including original sin ● The means of salvation, including law, grace and Spirit. ● The role of Christ in salvation including the idea of atonement.	**In addition to the points above:** ● Use key vocabulary fluidly ● Explain detailed knowledge and understanding of religious beliefs. ● Using sources of wisdom and authority (including scripture) to support understanding of religious beliefs. ● Applying knowledge to analyse differences and similarities within religious beliefs. ● Evaluating the significance and impact of religious beliefs on individuals and communities. ● Evaluate the strengths and weaknesses of arguments ● Construct well informed and balanced arguments about religious concepts
Term 5 and 6	
Content Knowledge (what do we want students to know?)	**Procedural Knowledge (What do we want students to be able to do?)**
In addition to the points above: **Religion, Peace and Conflict** ● The meaning and significance of: peace, justice, forgiveness, reconciliation. ● Violence, including violent protest ● Terrorism ● Reasons for war, including greed, self-defence and retaliation. ● The just war theory, including the criteria for a just war. ● Holy war ● Pacifism ● Religion and belief as a cause of war and violence in the contemporary world. ● Nuclear weapons, including nuclear deterrence ● The use of weapons of mass destruction	**In addition to the points above:** ● Use key vocabulary fluidly ● Explain detailed knowledge and understanding of religious beliefs about ethical issues. ● Using sources of wisdom and authority (including scripture) to support application of religious beliefs to ethical issues. ● Analyse diversity within religious responses to ethical issues ● Evaluating the significance and impact of religious beliefs in approaching ethical issues ● Evaluate the strengths and weaknesses of arguments ● Construct well informed and balanced arguments about religious concepts

● Religion and peace-making in the contemporary world including the work of individuals influenced by religious teaching. ● Religious responses to the victims of war including the work of one present day religious organisation.	

Spanish

GCSE Specification

The exam board that the students' study is AQA. Please click here for the Spanish GCSE specification.

Subject Curriculum Intent

In addition to the aims of the GCSE specification, our ambitious curriculum for **SPANISH** at DGGS aims to:

- To foster pupils' curiosity and deepen their understanding of Spain and the Spanish-speaking world.
- To broaden students' horizons and encourage them to step beyond familiar cultural boundaries and develop new ways of seeing the world.
- To enable students of all abilities to develop their Spanish language skills to their full potential, equipping them with the knowledge to communicate in a variety of contexts with confidence.
- To fully equip students with knowledge and skills required to embark further study of Spanish.
- To work towards becoming a fluent and spontaneous speaker of Spanish.

Curriculum Summary

Term 1 and 2	
• Content Knowledge (what do we want students to know?)	• Procedural Knowledge (What do we want students to be able to do?)
• Classroom language. • Vocabulary related to the equipment and routines in the classroom. • Present tense of regular verbs • Vocabulary used to describe physical appearance • Vocabulary used to describe physical • The use of reflexive verbs to describe your relationship with your family and friends. • Vocabulary related to reading preferences. • vocabulary related to activities that you do in your free time • Present continuous of regular verbs. • Christmas in different Hispanic countries	• Be able to follow classroom instructions/use TL in lesson to ask questions • Recognise and reproduce key Spanish sounds. • Use ojalá pudiera, ojalá tuviera, siempre me ha gustado, siempre he querido • Be able to use vocabulary to describe physical appearance and personality • Be able to talk in a detailed manner and with a degree of confidence about your family and friends. • Justify opinions about your reading preferences and identify similar opinions expressed differently • Be able to explain the advantages and disadvantages by using a variety of connectives. • Understand short/longer spoken and written texts using the present continuous. • Compare Christmas in the UK and Spain
• Term 3 and 4	
• Content Knowledge (what do we want students to know?)	• Procedural Knowledge (What do we want students to be able to do?)
• In addition to the points above: • Vocabulary related to free time activities • Vocabulary related to technology and online safety • The verb Soler • Vocabulary to arrange plans with friends • Vocabulary related to sports activities	• In addition to the points above: • To be able to understand short/longer spoken and written accounts describing free time activities, focused on sports; understand differences between the verb jugar/hacer when talking about practising a sport • Be able to express with a degree of confidence what you use technology for, and how to keep safe online.

• The imperfect tense of regular verbs • The imperfect tense of irregular verbs • Vocabulary related to TV programmes and films. • Talking about a bad day • Give opinions about apps • Learn about Spanish celebrities • Understand short/longer spoken and written about TV programmes and films. • Vocabulary related to films and different types of films • Near future. • Vocabulary related to different types of entertainment.	• To be able to use the verb SOLER in the present tense, as well as a range of frequency adverbs and time frames. Students can also give their opinions about these activities and justify them using adjectives and use the preterite when talking about a concert they have been to • To be able to express with a degree of confidence what sports you used to do using the imperfect tense; can use ya no/ no longer to combine present and past in a sentence; can find strategies to differentiate the present and past tense when listening to a conversation. • Students will be able to express with a degree of confidence the different types of film you like, and the favourite programmes you watch, also to be able to say if you are a TV addict. • Be able to express your own opinion using a range of opinion verbs about a variety of films and how often you watch films in your free time using the present tense of "ir"and explain their future plans. • Be able describe a bad day in the past.
• Term 5 and 6	
• Content Knowledge (what do we want students to know?)	• Procedural Knowledge (What do we want students to be able to do?)
• In addition to the points above: • Learning about typical food in Spanish-speaking countries • Describing healthy daily routines • Talking about mealtimes and food trends • Comparing old and new habits • Using imperfect • Talking about illness and injuries • Talking about health • Using future tense • Making future plans for health and wellbeing • Reflexive verbs in the three tenses	• In addition to the points above: • Be able to express with a degree of confidence people who inspire you and why; using the third person singular Él/Ella and a range of vocabulary and adjectives to describe role models; use the present tense and imperfect tense. • Be able to understand and produce a text in three-time frames • Be able to express with a degree of confidence what you eat using the vocabulary, and a range of adjectives to justify. • Be able to describe old and new habits • Be able to describe healthy routines • Be able to express health and wellbeing plans. • Be able to describe illness and injures. • Be able to order meals using the near future (voy a tomar) and the conditional (me gustaría), as well as ask other people. • Be able to express with a degree of confidence what you do during a day using reflexive verbs • Be able to implement writing and reading strategies to complete the assessments. • Be able to implement a variety of listening strategies. • Be able to write 90 words using three time phrases.