CURRICULUM KNOWLEDGE AND SKILLS SUBJECT REFERENCE GUIDE YEAR 9

ART AND DESIGN

Students will develop their **KNOWLEDGE** of:

- art, craft & design's importance and value as a subject.
- art based media, materials and processes and how these can be exploited within their work.
- art, craft & design practitioners (historical and contemporary) styles and movements.
- cultures, ideas and opinions from the wider world.
- art specific language to support discussion, analysis and evaluation of work.
- job roles and careers within the art world.

Students will develop their **SKILLS** in:

- drawing, drawing style and technique.
- the practical application of different media relevant to their project or theme.
- the exploration and manipulation of relevant materials and techniques.
- developing a personal response through creativity within their work.
- discussing and explaining ideas relevant to their work.
- discussing and analysing the work of others (artists and such like).
- analysing and evaluating effectively using relevant language and keywords.

BELIEFS AND VALUES

Students will develop their **KNOWLEDGE** of:

- What is a healthy relationship and what are the signs of an unhealthy relationship?
- What are effective contraceptives and what are STIs?
- What is the law about drugs and alcohol?
- What are the dangers of drugs, alcohol, vaping and smoking?
- What is the nature of God?
- How do religious people explain evil and suffering?
- How did creation happen?
- What happens when we die?
- What is the nature of reality?
- How do we make ethical choices?
- What are our human rights and what human rights abuses are there in society?

Students will develop their **SKILLS** in:

- Respectfully debating religious and nonreligious issues
- considering and making decisions about their own beliefs using informed reasoning.
- handling sensitive topics in an informed way while referring to diverse beliefs and teachings on these matters.
- evaluating different viewpoints on a range of topics from a range of points of view.
- connecting religious teachings and practices.
- articulating their own personal responses to ultimate questions.
- respecting the views of others.
- using inclusive language.

COMPUTING

Students will develop their **KNOWLEDGE** of:

- how to create and use variables effectively.
- how to store and manipulate string and numbers when programming.
- different data types used within programming languages.
- how to use iteration and selection effectively when programming.
- how to manipulate lists and arrays when programming.
- how to declare and use procedures and functions when programming.
- how the internet works.
- the different network topologies and their advantages and disadvantages.
- the difference between stand alone and client-server networks.
- how encryption works.
- the laws protecting ourselves and our data when using computers.
- how to recognise and protect ourselves from email scams.
- different health and safety measures we can undertake when using computers.

Students will develop their **SKILLS** in:

- creating and using variables effectively when programming.
- storing and manipulating string and numbers when programming.
- storing and using different data types when programming.
- using iteration and selection when programming.
- declaring and using procedures and functions when programming.
- understanding how the internet works.
- understanding the different network topologies and their advantages and disadvantages.
- understanding the difference between stand alone and client-server networks.
- understanding how encryption works.
- recognising the laws protecting ourselves and our data when using computers.
- recognising and protecting ourselves from email scams.
- recognising different health and safety measures we can undertake when using computers.

DESIGN TECHNOLOGY

D&T Materials is taught as one of three Technology subjects during the year.

Students will develop their **KNOWLEDGE** of:

- developing their understanding and application of the design process.
- the importance of informed and accurate decision making.
- understanding a target markets' needs and understanding their impact on design considerations and ideas.
- understanding the role of a designer and their responsibility to society and the environment.
- how to analyse existing products and identify design opportunities.
- developing knowledge to make informed choices regarding material selection.
- understanding the key principles and rules of workshop safety.
- a wide range of specialist tools and equipment.
- a wide range of materials.
- a wide range of construction methods.
- a wide range of decorative finishing techniques to finish/decorate a product and be able to justify choices.
- industrial methods and manufacture.

Students will develop their **SKILLS** in:

- being able to carry out effective research tasks.
- developing and applying evaluation and analysis skills.
- confident, aesthetic presentation of design and practical work.
- using a range of appropriate technical language when annotating.
- being independent and adhering to health and safety protocols in a practical environment
- selecting and using appropriate materials.
- selecting and using appropriate tools and equipment with accuracy and quality control
- constructing innovative, quality products.
- applying a range of high-quality finishing techniques to a product.
- effective analytical and evaluation methods.
- being able to identify and record areas for improvement and/or modification.

DRAMA

Students will develop their **KNOWLEDGE** of how to create and analyse work using the following conventions:

Throughout all schemes of learning students will develop **Physical Skills** (Facial Expression, interaction, gesture, gait, proxemics, levels, posture/body language, stillness) and **Vocal Skills** (emphasis, articulation, accent, tone, pause, pitch, pace, projection).

Style, Genre and Practitioners.

- Brecht's Epic Theatre.
- Verfremdungseffekt.
- Non-naturalistic movement.
- Juxtaposition.
- Narration and breaking the fourth wall.
- 360 degree tableaux.
- Episodic Structure.
- Placards.
- Use of Chorus and song.
- Immersive Theatre – Artaud and Punchdrunk.

Approaches to Script.

- Creating contrast on stage.
- Character relationships.
- Communicating Themes and Messages.
- Stanislavki's System.
- Highlighting power and status on stage.
- Levels of tension.
- Marking the moment.
- Immersive Theatre.
- Taking on the role of a Director.

Approaches to Devising.

- Devising from Stimulus.
- Internal vs. external (naturalistic vs. stylized)
- Artaud's Theatre of Cruelty.
- Verbatim Theatre/DV8's approach to devising.
- Berkoff's Total Theatre.

Students will develop their **SKILLS** in:

Throughout all schemes of learning students will develop **Physical Skills** (Facial Expression, interaction, gesture, gait, proxemics, levels, posture/body language, stillness) and **Vocal Skills** (emphasis, articulation, accent, tone, pause, pitch, pace, projection).
Students will also develop their **SKILLS** across areas relating to **creating, performing and responding**:

- Communication and Oracy.
- Group and Teamwork.
- Leadership and Directing.
- Analysis and Evaluation.
- Using drama terminology when creating and responding to work.
- Audience awareness and etiquette.

ENGLISH

Students will develop their **KNOWLEDGE** of:

Reading:

- a range of texts to help students articulate their ideas in a sophisticated way.
- the way in which language, structure, form and context are used to enable a writer to express their ideas.

Writing:

- the methods used to write with engagement and control.

Speaking and Listening:

- the various ways in which talk and discussion can be used to articulate meaning.

Students will develop their **SKILLS** in:

Reading:

- articulating informed interpretations of meanings supported by textual reference.
- analysing methods used to convey ideas, including language, structure and form.
- using subject terminology accurately to support their analysis of language, structure and form.
- comparing ideas, attitudes, methods and contexts in order to evaluate effectiveness.
- relating different texts to their relevant social, historical and literary context.
- evaluating a text and the effect it has on a range of audiences.
- explaining the author's intentions.

Writing:

- selecting appropriate words and phrases from a rich and wide vocabulary.
- demonstrating control of spelling, punctuation and grammar.
- utilising a variety of sentence structures with control.
- organising cohesive whole texts, effectively sequencing and structuring details within texts.
- producing texts that match the audience, purpose and register of different genres.
- writing with control and engagement for a variety of different audiences and purposes.

Speaking and Listening:

- talking in purposeful and imaginative ways to explore ideas and feelings.
- listening and responding to others, including in pairs and groups.
- creating and sustaining different roles and scenarios.
- understanding the range and uses of spoken language.

FOOD AND NUTRITION

Food Technology is taught as one of three Technology subjects during the year.

Students will develop their **KNOWLEDGE** of:

- applying principles of food safety and hygiene effectively.
- food contamination and temperature control.
- a range of food preparation and cooking techniques.
- A variety of different cooking methods.
- the eat well guide and current healthy eating guidelines.
- macro nutrients, micronutrients, sources and functions.
- dietary needs for the life stages.
- dietary related diseases – causes.
- menu planning effectively for a specific life stage.
- the source and characteristics of a broad range of ingredients.
- food provenance – food miles, organic foods, Fairtrade, sustainable fishing and free range foods.

Students will develop their **SKILLS** in:

- applying food safety and hygiene principles.
- identifying a range of items of equipment and their uses.
- demonstrating the safe use of sharp knives.
- weighing and measuring ingredients correctly.
- safe use of the cooker (hob, grill, oven) safely.
- reading and following a wide range of recipes accurately.
- using awareness of taste, texture and smell to decide how to season dishes and combine ingredient.
- carrying out a range of food preparation and cooking techniques with accuracy and independence.
- demonstrating a wide range of food preparation and cooking methods.
- evaluation techniques.

GEOGRAPHY

Students will develop their **KNOWLEDGE** of:

- Development
- Tectonics
- Glaciation
- 21st century challenges
- Climate change

Students will develop their **SKILLS** in:

- Cartography
- Graphicacy
- Numeracy
- Enquiry
- Communication

HISTORY

Students will develop their **KNOWLEDGE** of:

- World War One.
- Suffrage
- Arab-Israel Conflict
- 20th Century Dictators.
- The Second World War.
- The Holocaust.
- The Cold War
- Britain in the 20th Century

Students will develop their **SKILLS** in:

- Causation.
- Interpretation.
- Change and Continuity.
- Significance.
- Historical Evidence.

MATHS

Students will develop their **KNOWLEDGE** of:

- using ratio tables to solve problems with fluency. Selecting appropriate strategies considering efficiency when using a calculator and when this is not allowed. Using multiplication and division by decimals and fractions with relative ease.
- using the number line efficiently to order numbers written in different formats including index form, standard form and surd form.
- using combination tables when solving linear simultaneous equations.
- developing effective strategies to solve equations with unknown on both sides including those involving subtraction and fractional values of x.
- using the area model effectively to factorise and expand single and double brackets.
- using a combination of strategies to calculate area and surface area of complex shapes.

Students will develop their **SKILLS** in:

- appreciating that being stuck is a necessary step to learning mathematics and are developing strategies to make progress in these situations.
- simplifying multi-step problems and appreciate the importance of identifying what they can work out in order to make some progress with a given task.
- developing noticing and justification skills to actively make links in areas of mathematics and where appropriate outside the subject.
- an inquisitive approach to mathematics and are not satisfied with reaching a solution. They regularly ask themselves questions like ‘how can the problem be made easier/harder’, ‘what changes if we change …’, what happens if …’, ‘is this always/sometimes/never true’.
- appreciating links in graphical representation and are able to reverse problems (start with any aspect to complete others) – in particular looking at the graph of quadratics.
- using mathematical language appropriately.
- beginning to distinguish between examples and mathematical proof.
- using construction equipment with relative ease.

MFL – FRENCH, GERMAN AND SPANISH

Students will develop their **KNOWLEDGE** of:

- how to build on basic grammar and vocabulary from Years 7+8 as appropriate to ensure progress.
- a wide range of regular and irregular verb forms, including less common irregular verbs in different tenses.
- using verb forms in past, present, future and conditional tenses without prompting.
- using time markers to express different time frames.
- how to use adjective agreement consistently accurately in different contexts.
- using a very broad range of vocabulary, including vocabulary from the GCSE specification, to express ideas in creative ways.
- non-literal translation and how this affects translation into English and the Target Language.
- how to manipulate grammar to express more complex ideas.

Students will develop their **SKILLS** in:

- reviewing and redrafting work and correcting errors regularly (study skills).
- initiating, developing and sustaining a conversation on a range of topics, with increasing spontaneity in answering questions.
- using pronunciation and intonation which are accurate and would be understood by a native speaker.
- giving and developing opinions on a range of topics, using a range of structures.
- producing sentences of fluent, accurate writing to narrate, inform and express points of view
- using language creatively to express ideas about different issues.
- deducing meaning and demonstrating understanding of overall message and detail in longer passages of Target Language text.
- listening to and understanding speech of varying speed and length to understand both gist and detail.
- translating texts containing more complex structures and less common vocabulary into both the Target Language and English to convey meaning accurately.
- independently using a dictionary and / or vocab book as reference for support and to deepen vocabulary.
- understanding and appreciating a range of literary texts such as poems, stories and songs, which stimulate ideas and opinions.

MUSIC

Students will develop their **KNOWLEDGE** of:

- musical terms, symbols and genres.
- a range of musical elements – texture, melody, harmony, tempo, instrumentation, rhythm, pitch, dynamics
- recognising rhythmic musical symbols – crotchets, minims.
- recognising various genres of music and know some of the musical features of that genre.

Students will develop their **SKILLS** in:

Performing Music:

- singing with expression and clear diction.
- demonstrating reasonable confidence/high level of confidence in performance.
- maintaining an appropriate role within a group (leading, solo part or support).
- keeping their own part going in a group performance.
- performing fluently and accurately on the keyboard, guitar and ukulele.

Composing Music:

- improvising melodic/rhythmic material within extended structures.
- using tempo and dynamics creatively.
- creating compositions which explore different sounds and the musical elements.
- refining and improving work effectively in rehearsals, developing initial ideas further.

Understanding Music:

- recognising a variety of different instrument sounds, knowing the instrument families (to a higher level).
- knowing and recognising musical elements in listening tasks.
- suggesting improvements to their own and others' work.
- describing and compare musical features in listening tasks, using appropriate vocabulary.
- exploring the contexts, origins and traditions of different musical styles.
- using appropriate musical vocabulary when creating or evaluating work.

PE

Students will develop their **KNOWLEDGE** of:

- advanced strategies, tactics and skills used in sports and physical activities
- rules and regulations for a range of sports
- short and long term effects of exercise on the body to muscular, cardiovascular and respiratory systems
- identifying antagonist muscle movement in sport specific skills
- identifying and describing components of fitness that benefit different sports/activities
- safety factors during physical activity and for more advanced activities
- the benefits of leading a healthy active lifestyle – through exercise and diet, to also include physical activity outside of school

Students will develop their **SKILLS** in:

- a wide variety of activities: team and individual games, athletic and gymnastic activities, health related exercise and outdoor adventurous activities
- teamwork.
- using advanced techniques, strategies and tactics in a range of sports in competitive game situations
- being able to make the correct decisions in competitive situations to allow you to beat an opponent regularly
- analysing performance of yourself and others during performance to alter the outcome of a game

SCIENCE – BIOLOGY, CHEMISTRY AND PHYSICS

Students will develop their **KNOWLEDGE** of:

Biology

- cells, subcellular structures and how microscopy is used to examine these.
- DNA structure.
- how genetic material is used as a code to make proteins.
- metabolic processes such as respiration.
- how green plants and algae trap light from the Sun in photosynthesis.
- how cells transport many substances across their membranes by diffusion, osmosis and active transport.
- stem cells which are found in both plants and animals and can divide, differentiate and become specialised to form tissues, organs and organ systems.
- gaseous exchange surfaces and transport systems in multicellular organisms.
- the human nervous system.
- the role of hormones in the human body.

Chemistry

- the particle model and its explanation of different states of matter.
- how elements are substances that are made up of only one type of atom and atoms of different elements can combine to make compounds.
- models of atomic structure.
- estimate size and scale of atoms and nanoparticles and describe the properties and uses of nanoparticles. (Separates only).
- useful materials that we use today that are mixtures.
- method of separating mixtures including filtration, crystallisation, distillation and chromatographic techniques.
- what happens when chemical reactions occur in terms of losing, gaining or sharing of electrons.
- the physical properties of elements and compounds and how the nature of their bonding is a factor in their properties.
- using chemical equations to represent the overall change in a chemical reaction.
- conservation of mass.
- that chemical reactions are accompanied by an energy change and a simple model involving the breaking and making of chemical bonds can be used to interpret and calculate the energy change.
- examples of reactions including reduction, oxidation and neutralisation reactions.
- Electrolysis.
- models of how substances react and the different types of chemical reactions that can occur enable us to predict the likelihood and outcome of a chemical reaction. (Separates only).
- the current Periodic Table and the way it reveals the trends and patterns in the behaviour of the elements. (Separates only).

Physics

- matter in its different forms, subatomic particles, their relative charges, masses and positions inside the atom.
- change in pressure in the atmosphere and in liquids with height (qualitative relationship only) (Separates only).
- floating and sinking and the effect of upthrust (Separates only).
- the effects of forces.
- the direction in which forces act to allow understanding of the importance of vector quantities when trying to predict the action.
- Newton's laws of motion.
- force interactions between objects, which can take place even if they are not in contact.
- Forces acting on an object can result in a change of shape or motion.
- interactions between matter and electrostatic fields.
- how electrical currents depend on the movement of charge and the interaction of electrostatic fields.
- the links between movement of charge and magnetism.
- use of magnetic fields to induce electrical currents and the applications of this electromagnetic induction in motors, dynamos and transformers (Separates only).

Students will develop their **SKILLS** in:

- hypothesising and testing theories and concepts.
- assessing hazards and taking precautions to minimise the associated risks.
- using appropriate apparatus and techniques.
- observation, enquiry and problem solving.
- analysing methodology, evidence and conclusions.
- interpreting and evaluating.
- communication, mathematics and the use of technology in scientific contexts.

TEXTILES

Textiles is taught as one of three Technology subjects during the year.

Students will develop their **KNOWLEDGE** of:

- research methods, drawing from multiple sources to make informed design choices.
- 3 dimensional patterns and construction techniques.
- health and safety rules when using Textiles specialist tools and equipment.
- how to complete a detailed design specification.
- a range of techniques used to embellish and construct a Textiles product.
- environmental considerations within the Textiles industry.
- sustainability within Textiles e.g. eco-fashion.
- subject specific vocabulary.

Students will develop their **SKILLS** in:

- researching to inform design.
- design work including detailed annotation and drawing techniques.
- safe and accurate use of advanced Textiles equipment including the sewing machine.
- machine embroidery, beading and dyeing.
- understanding and reading patterns.
- marking and cutting fabric accurately.
- evaluating outcomes.

ATTITUDES AND HABITS REFERENCE GUIDE

At school we expect our students to display the following Attitudes and Habits:

ATTITUDES

- Ready to learn and quick to settle
- Takes responsibility for learning
- Has a thirst for learning
- Willing to work independently with focus/without teacher input
- Willing to actively participate in a variety of situations
- Seeks to develop learning by questioning
- Takes risks to further learning
- Maintains a positive relationship with others
- Shows respect at all times
- Always puts effort into learning/classwork/P & P
- Understands the importance of working to deadlines
- Takes responsibility for their own and others' safety in school/classroom/learning environment
- Meets school expectations of behaviour/learning/attendance

HABITS

- Prepared to learn
- Fully equipped for lessons
- Prepared for assessment
- Actively engages with learning
- Always responds to targets/feedback
- Seeks to demonstrate knowledge through answering questions
- Seeks opportunities to be challenged
- Able to work independently with focus
- Willing to ask for help if needed and knows where to find help
- Follows all instructions
- Work is well organised
- P & P is always completed
- Regularly meets deadlines
- Seeks opportunities to participate in extra-curricular activities and/or roles of responsibility
- Attendance follows school's expectations