



LAURUS
CHEADLE
HULME

**CURRICULUM KNOWLEDGE
AND SKILLS SUBJECT
REFERENCE GUIDE
YEAR 9**

ART AND DESIGN

Students will develop their **KNOWLEDGE** of:

- appropriate and relevant research
- artists, crafts persons and designers' work
- cultural capital
- developing and recording ideas
- how to improve their work using success criteria
- using art vocabulary and terminology appropriately

Students will develop their **SKILLS** in:

- drawing through means such as observational studies, photography and documenting ideas
- using different media
- experimenting with media and developing control
- developing a personal response through creativity within their work (developing relevant ideas, CPR)
- discussing and explaining ideas relevant to their work
- discussing and comparing the work of others (artists and such like) annotating and evaluating using relevant language and keywords

COMPUTING

Students will develop their **KNOWLEDGE** of:

- Use of Microsoft Office 365, specifically OneNote.
- Programming constructs including lists, iteration, and subroutines.
- Common sorting and searching algorithms
- Databases and how they work
- How data is collected and used by organisations
- Cyber security and ways to keep themselves and their data safe
- How images and sound are represented in binary
- Computer memory and secondary storage
- How spreadsheets are used

Students will develop their **SKILLS** in:

- Breaking down a problem to create a suitable solution
- Python programming using the constructs listed above
- Finding and correcting errors in programs (debugging)
- Presenting data as visualisations suitable for different audiences
- Creating digital products for a particular audience
- Tracing searching and sorting algorithms to demonstrate how they work.
- Formatting spreadsheets to present data
- Writing spreadsheet formulae

DESIGN TECHNOLOGY

Students will develop their **KNOWLEDGE** of:

- The iterative design process; research, design, develop, test, evaluate and repeat.
- The history of architecture and key styles.
- Materials and their properties (concrete, metal, brick, wood, plastic, glass). Their original source and the benefits and challenges they may have.
- Manufacturing techniques for buildings and the use of CAD/CAM.
- The responsibilities of a designer to consider social, moral and environmental implications.
- The safety, suitability and quality of products for a consumer.
- Tools and equipment.
- Drawing techniques; 3D drawing, architectural, sketching, perspective, scale.
- Issues related to design and sustainability (focus on architecture).
- Structures.
- Safety precautions and rules.

Students will develop their **SKILLS** in;

- Drawing and communicating ideas in 2D and 3D.
- Modelling and prototyping.
- Using tools and equipment with some accuracy and safely.
- Testing, refining and evaluating ideas/outcomes.
- Research and analysis.
- Discussing and comparing the work of others.
- Drawing from technical language when annotating.
- Using research to influence and inspire ideas.
- Note taking and selecting key information.

DRAMA

Students will develop their **KNOWLEDGE** of:

- a range of theatre practitioners such as Stanislavski, Brecht, Berkoff, and Frantic Assembly.
- the theatre practitioner Antonin Artaud and the style of immersive theatre.
- Artaud's backlash to theatre at the time and its aesthetics
- Artaud's impact on the modern 21st century theatre.
- how to bring scripts to life through the use of performance skills (Physical, vocal, and spatial).
- the creative process of bringing to life a piece of theatre from page to stage using the extracts from the play Blood Brothers by Willy Russell.
- subtext through the study of the play text Blood Brothers by Willy Russell.
- devising and creating performance work through different historical events.
- Advanced dramatic conventions that will enhance a piece of performance.
- Developing characters for stage through different rehearsal techniques.
- Evaluating and analysing key moments from recorded live theatre.
- How lighting, sound, set, costume and props all enhance a piece of performance and how they make impact on an audience.
- Career roles found within a theatre setting.

Students will develop their **SKILLS** in:

- Creating Ritualistic Artaudian movement.
- Using and creating symbolic movement/gestures to create meaning.
- Adapting and creating movement sequence to add context.
- Using non-naturalistic movement to create abstract performances.
- Considering proxemics and space to communicate meaning.
- Focusing on body language and NVC as a way of communicating to an audience.
- using vocal skills in order to create character. Students continue to develop their use of the vocal toolbox focussing more on the use of volume and projection, and accent and dialect.
- Experimentation with the use of sound to communicate narrative rather than the use of dialogue.
- Annotation of scripts to find subtext.
- Group work
- Leadership / directing
- Active listening
- Using drama terminology when creating or evaluating work
- audience awareness
- Verbal analysis
- Communication with an audience using eye contact and projection

- Staying in role
- Development of new drama techniques, strategies and conventions

ENGLISH

Students will develop their **KNOWLEDGE** of:

Reading:

- how to anticipate a text's content based upon the context and title
- how to recognise the writer's intentions, attitudes and message within in a text
- the structure of a Tragedy and how ideas are sequenced to affect meanings
- a range of fiction and non-fiction 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, affect meanings and create effects
- what an archetype is and how writers manipulate archetypes to develop their characters
- how to use a tentative and exploratory approach to poetry to develop their depth of appreciation and interpretation of ideas
- How writers and texts present similar and different universal and timeless themes across time

Writing:

- How to manipulate vocabulary, imagery, sentence length and punctuation to adopt a specific tone
- the methods used to write with engagement, including developing vocabulary, imagery and figurative language
- how to structure writing so that ideas are crafted into a planned sequence
- the methods used to write with control, including spelling, grammar and punctuation

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.
- How to ask questions, of texts and of each other
- How to formulate persuasive opinions, through careful listening and well-judged responses
- How to rehearse and prepare scripts for performance
- How to use voice to demonstrate tone
- How to discuss ideas

FOOD & NUTRITION

Students will develop their **KNOWLEDGE** of:

- Principles of nutrition, including the calorific and nutritional value of foods. Students will know the food groups, macronutrients and micronutrients and will be able to explain the need for each.
- Explore the factors involved in food and drink choice and how this may be influenced by availability, season, need, cost, minimal packaging, where the food is produced, culture, religion, allergy/intolerance and peer pressure.
- Specialist diets including an awareness of allergies, intolerance, diets through the lifespan and moral and cultural reasons for diet changes.
- Food provenance, including forming an informed opinion on the impact of the food industry and consider ethical and moral issues surrounding food choice.
- Food science, including knowing the causes of enzymic browning and how to prevent it, linking heat transfer methods and cooking methods, and being able to explain the processes: gelatinisation, dextrinization, caramelisation, denaturation and aeration.

Students will develop their **SKILLS** in:

- Making food choices based on the current healthy eating advice and understand that a healthy diet is made up from a variety and balance of different food and drinks, as depicted in the Eatwell Guide. This includes knowing that different foods provide different substances required for our health, namely nutrients: (carbohydrate, protein, fat, vitamins and minerals), water and fibre.
- Applying principles of food hygiene and safety when preparing high risk foods. Know how to store, prepare and cook a variety of predominantly savoury dishes safely and hygienically.
- Selecting and using an expanding range of equipment safely when preparing and cooking food, with a particular focus on accurate knife skills and competency using different parts of the cooker.
- Demonstrating an increasing range of food preparation skills, including use of hand-held electrical equipment.
- Critically reflecting of their own practical skills and the dish itself through written and verbal forms of evaluation. Students will be able to comprehensively conduct sensory evaluation and understand its application to real-world scenarios (for example, in product development). Students will have a broad repertoire of sensory descriptive language that I am able to use verbally and in written work to describe my viewpoint.
- Sauce making.
- Cake and pastry making.
- Cooking with meat.

GEOGRAPHY

Students will develop their **KNOWLEDGE** of:

- Development
- Tectonics
- Glaciation
- 21st century challenges
- Coasts

Students will develop their **SKILLS** in:

- Cartography
- Graphicacy
- Numeracy
- Enquiry
- Communication

HISTORY

Students will develop their **KNOWLEDGE** of:

- The First World War
- 20th century dictatorships
- The Second World War and decolonisation
- The Holocaust
- Social change in C20th Britain

Students will develop their **SKILLS** in:

- Causation
- Change and Continuity
- Historical evidence
- Interpretation

LANGUAGES

Students will develop their **KNOWLEDGE** of:

- How to review and improve on basic grammar and vocabulary from Year 7/8 as appropriate to ensure progress
- Using a wide range of regular and irregular verb forms
- Using verb forms in past, present and future tenses without prompting
- Using time markers to express different time frames
- Using adjective agreement confidently in different contexts
- Using a wide range of topic specific vocabulary from the GCSE specification to express ideas in creative ways
- Manipulating more complex grammar to express ideas in a more sophisticated style

Students will develop their **SKILLS** in:

- redrafting their work to improve accuracy
- holding longer conversations and reacting spontaneously to questioning
- developing their ideas and points of view using a wide range of structures
- independently using a dictionary/or vocab book to deepen vocabulary and as reference material
- understanding and appreciating a range of literary texts such as poems, stories and songs, which stimulate ideas and opinions
- translating longer texts between English and the target language in a variety of contexts and understanding the skill of translation
- Structuring extended pieces of writing, responding to unseen stimuli
- Reading and listening for both gist and detail in increasingly lengthy passages of text / spoken language

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 not. 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 and compound shapes
- Further explore co-ordinate geometry through big picture ideas linking algebra and graphs including, quadratics, cubics and simultaneous equations
- Continue to develop statistical reasoning through probability
- Exploring the unit circle as an introduction to Trigonometry

Students will develop their **SKILLS** in:

- appreciating that being stuck is a necessary step to learning mathematics and developing strategies to make progress in these situations. They are able to simplify 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. They have an inquisitive approach to mathematics and are not satisfied with reaching a solution. They regularly ask themselves questions like 'how can the problem 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
- drawing upon knowledge and skills developed across Year 7 and 8

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 and the roles of different types of officials
- Antagonist muscle pairs and basic movements at different parts of the body during sport.
- Types of joints allowing movement for sporting action
- Safety aspects during physical activity and for more advanced activities.

Students will develop their **SKILLS** in:

- Football, Handball, Health Related Exercise, Table Tennis, Trampolining, Rounders, Softball and Athletics.
- 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 consistently.
- Analysing performance of yourself and others during performance to alter the outcome of a game.

SCIENCE

Students will develop their **KNOWLEDGE** of:

Biology –

- learning that heredity is a process that transmits genetic information from one generation to the next
- considering a simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin
- developing their understanding of variation, to identify that some organisms compete more successfully, driving natural selection.
- how enzymes act as biological catalysts and are responsible for processes such as photosynthesis and respiration that they learnt in Year 8

Chemistry –

- consolidating their understanding of some basic chemistry fundamentals learnt in earlier years. Students will quickly move on to learn about chemical reactions and build upon their knowledge of this topic first covered in year 7. Towards the end of the first term, students will be introduced to the structure **of** the atom and sub-atomic particles
- continuing to learn about the structure of atoms and discover how this links in with the arrangement of elements in the periodic table. Students will look at group 1, group 7 and transition group elements in more detail
- the rates of chemical reactions. Students will learn how to measure the speed of a chemical reaction using various techniques and how different factors can affect the rate
- building upon ideas first met in Year 7 when they look at different separating techniques including fractional distillation and chromatography

Physics –

- reviewing their understanding of forces and electricity then advancing that understanding using the contexts of Newton's laws of motion and generating electricity
- Simple Machines which covers the topics of pressure, moments and Hooke's Law. These are all essential basics for how this works and also present lots of mathematical skills that are the basis of much of Physics at KS4
- Nuclear Physics covering the basics of alpha, beta and gamma radiation as well as the processes involved in nuclear power
- starlight. Students will combine knowledge of cosmological principles such as the life cycle of stars and the Big Bang theory with how we know anything about space, the light emitted by stars

Students will develop their **SKILLS** in:

Biology –

- an ability to represent continuous and discontinuous data through considering variation between individuals
- developing their practical investigation skills through completing a piece of controlled assessment. They will select, plan and carry out the scientific enquiries to test hypotheses, including identifying independent, dependent and control variables
- developing their sampling techniques and record observations through the 'Ecology and Environment' topic

Chemistry –

- learning about several different types of chemical reactions, which involve using practical skills and teamwork in order to carry out reactions safely
- carrying out experiments in order to investigate rates of reactions. They will focus on analysing data and interpreting graphs. The students also use conventional models to learn about atomic structure

Physics –

- the practical skills of previous years looking at forces and electric circuits, and develop practical skills involving beams of light, springs and pivots. The expectations of how the data is presented (e.g. table of results and graphs) is to KS4 standard
- calculation - students' skills are also developed through the practise of various formulae

MUSIC

Students will develop their **KNOWLEDGE** of:

- the elements of music (pitch, dynamics, tempo, texture, sonority (timbre), rhythm, metre, melody, harmony, tonality, articulation).
- musical symbols (such as notes on a staff, treble clef, time signatures, accidentals).
- notes of the keyboard (able to know the notes without support).
- treble clef notation (have a good understanding of treble clef notation for use in practical tasks).
- rhythmical musical symbols (crotchets, minims, quavers, equivalent rests etc.).
- musical genres (developing understanding of the musical features within a variety of musical genres. exploring the contexts, origins and traditions of different musical styles).
- musical vocabulary (knowledge of various musical terms, including Italian terms and ability to apply them correctly to various musical tasks).

N.B. This knowledge is in addition to the development of their Year 8 musical knowledge, which will now be explored at a more advanced level.

Students will develop their **SKILLS** in:

Performing Music:

- singing with expression, clear diction, fluency and accuracy – both solo and in a group
- demonstrating high level of confidence in performance
- maintaining an appropriate role within a group (leading, solo part or support)
- showing awareness of the needs of others in group tasks
- performing fluently and accurately on the keyboard and tuned percussion
- performing longer parts from memory and/or from music notations

Composing Music:

- improvising melodic/rhythmic material within extended structures
- using tempo and dynamics creatively
- sustaining and developing musical ideas
- making significant contributions to a group
- composing music for different genres which explore musical features and devices
- using rehearsal time effectively to refine material.

Understanding Music:

- identifying different genres of music and their features within listening tasks.

- describing and comparing musical features in listening tasks, using appropriate vocabulary
- recognising a variety of different instrument sounds, knowing the instrument families (to a higher level)
- knowing the musical elements and recognising them in listening tasks (to a higher level)
- considering successful/non-successful outcomes and improve their own and others' work
- describing and comparing musical features in listening tasks, using appropriate vocabulary
- evaluating how venue, occasion and purpose affect the way music is created performed and heard
- exploring the contexts, origins and traditions of different musical styles
- beginning to analyse music in more detail, using key words and musical terms
- using appropriate musical vocabulary when creating or evaluating work

TEXTILES

Students will develop their **KNOWLEDGE** of:

- Appropriate and relevant research
- Different fabrics, their properties and sources
- Surface treatments and finishes
- Understanding what a design brief and target market is
- Understanding the process of constructing a product
- How to improve their work using success criteria
- Using textile vocabulary and terminology appropriately

Students will develop their **SKILLS** in:

- How to carry out a variety of techniques
- Embellishing and dyeing fabrics
- Garment construction
- How to use equipment effectively and safely in the work room
- developing a personal response through creativity within design and carrying out techniques independently
- Discussing and explaining ideas relevant to their work