



**LAURUS
GRACE**

Curriculum Knowledge and Skills

Subject Reference Guide

Year 8

2025-2026

Year 8 English

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <p>Reading</p> <ul style="list-style-type: none"> • 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 • the development of texts throughout the history of Literature • an understanding that although historical context may have an impact on how a reader might interpret a text, universal themes transcend time <p>Writing</p> <ul style="list-style-type: none"> • the methods used to write with engagement and control, including sentence structure, punctuation, vocabulary, whole-text structuring and spelling • an understanding of different formats and tones to suit a specific purpose <p>Speaking and Listening</p> <ul style="list-style-type: none"> • the various ways in which talk and discussion can be used to articulate meaning 	<p>Students will develop their skills in:</p> <p>Reading</p> <ul style="list-style-type: none"> • developing reading skills such as evaluation, prediction, inference and summarising • articulating informed interpretations of meanings supported by textual reference • analysing methods used to convey ideas, including language, structure & form • comparing ideas, attitudes, methods and contexts in order to evaluate effectiveness • relating different texts to their relevant social, historical and literary context • identifying and commenting on the effect of writer's methods • knowing and identifying a wide range of language and structure terminology <p>Writing</p> <ul style="list-style-type: none"> • 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 <p>Speaking and Listening</p> <ul style="list-style-type: none"> • talking in purposeful and imaginative ways to explore ideas and feelings • delivering ideas and views in a confident and clear way • 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

Year 8 Maths

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none">• ratio tables and using these as tools to solve numerical problems• appropriate models to represent and solve numerical problems including comparing measurements and operations with fractions• appropriate calculations including the unitary method and begin to consider decimal and fractional multipliers in developing proportional reasoning• the number line to order numbers written in different formats for example, indices and standard form• a combination of strategies to calculate the area of more complex shapes including non-rectilinear• the area model to expand single and double brackets and begin to reverse this process (leading to factorising) whilst further developing algebraic manipulation skills• co-ordinate geometry through big picture ideas linking algebra and graphs• statistical reasoning which begins to draw conclusions from data represented in varying ways.• geometric reasoning through exploring shape and space including circle geometry	<p>Students will develop their skills in:</p> <ul style="list-style-type: none">• noticing - making and testing conjectures.• justifying conjectures and refining these with contributions from others.• generalising• questioning peers' contributions to the development of mathematical ideas• comparing graphs and representations. Students use information given in graphical form to drive new information. Students appreciate links in graphical representation and are able to reverse problems (start with any aspect to complete others)• considering what makes a given problem more demanding as well as how it can be simplified• using mathematical language appropriately

Year 8 Science - Biology

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none"><li>● aerobic and anaerobic respiration in living organisms necessary for life<li>● the structure of the respiratory and circulatory system and the function of organs<li>● the principles of diffusion including factors that affect diffusion<li>● osmosis and its importance in living organisms<li>● how pathogens cause diseases<li>● the difference between communicable and non-communicable diseases and how each are treated<li>● how vaccines can lead to immunity to specific diseases<li>● the ability of photosynthetic organisms, such as plants and algae, to use sunlight in photosynthesis to build organic molecules<li>● relationships in an ecosystem, including food webs and nutrient cycling	<p>Students will develop their skills in:</p> <ul style="list-style-type: none"><li>● using percentage change and why it is used when measuring changes in volume, length or mass<li>● commenting on accuracy and reliability of experiments and suggesting improvements<li>● calculating averages e.g. the mean result<li>● describing and explaining trends in data<li>● drawing pyramids of numbers and biomass<li>● calculating the zone of inhibition<li>● safely carrying out a heart dissection to locate key structures

Year 8 Science - Chemistry

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none"><li>● atoms, elements, compounds, and mixtures - building on the knowledge that they gained in year 7.<li>● how mixtures can be separated and how the type of mixture will determine the separating technique to be used<li>● metals and their properties, uses, behaviour and reactions as well as how they are extracted from the Earth.<li>● the rates of chemical reactions and learn how to measure the speed of a chemical reaction using various techniques<li>● how different factors can affect the rate of reaction	<p>Students will develop their skills in:</p> <ul style="list-style-type: none"><li>● research as they find out about the properties and extraction of metals<li>● using models to help them understand abstract theory<li>● investigation and will further develop skills learnt in year 7 by forming hypotheses,<li>● identifying variables, carrying out controlled investigations, analysing results, drawing<li>● drawing conclusions and evaluating their investigative methods

Year 8 Science - Physics

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none"><li>● topics covered in year 7, deepening that understanding or delving into a new aspect of the topic<li>● the forces involved in motion<li>● how to calculate and investigate different aspects of speed, velocity, and acceleration<li>● the basics of series and parallel circuits (review) before moving on to more complex ideas of electricity such as resistance and how it changes with length<li>● the basics of I-V relationships<li>● energy changes including what the differences are between energy, work, and power - this will lead students on to the thermal physics topic, which after linking heat energy and temperature students will look at how energy can be transferred by conduction, convection, and radiation<li>● light and how it travels as a wave including the shape and key features of the wave<li>● gravitational forces, looking at the solar system from the point of view of the forces acting on people, satellites, and planets	<p>Students will develop their skills in:</p> <ul style="list-style-type: none"><li>● using and manipulating formulae, including appropriate use of units<li>● investigation by developing those skills learnt in year 7 including forming hypotheses, identifying variables, carrying out controlled investigations, analysing results, drawing graphs, drawing conclusions, and evaluating investigative methods

Year 8 Art/Photography

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none">• art history How has the past influenced the present?• the creative process• how to develop ideas taking purposeful inspiration from art movements / artists' work• how to improve their work using success criteria• using art vocabulary and terminology appropriately• measured observational drawing• composition• health and safety when working with unconventional materials and clay• Photoshop processing• Formal camera skills	<p>Students will develop their skills in:</p> <ul style="list-style-type: none">• how to develop ideas through purposeful investigations and experimentation• exploring media including pencil, paint, clay, print making, and collage• annotating and evaluating using relevant language and keywords• carrying out observational measured drawing as well drawing to express and communicate ideas.• developing independency when working on a project• developing creativity through their knowledge of artists work/ art movements• Use of photoshop to develop work• Using DSLR cameras

Beliefs and Values

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none"> • Islam: the significance of God and the practices within Islam, the role and significance of Islamic scripture • Sikhism: Sikh beliefs about God and how this impacts the lives of the Sikh community with specific focus on the concept of service to others. • RSE Curriculum: healthy and positive relationships and the potential dangers of negative relationships, an exploration of resilience and mental health. The risks involved with Exploitation, Harassment and unsafe situations. E.g. peer pressure. • PSHE Curriculum: The physical and psychological risks involved with using Alcohol and Drugs, the laws surrounding these and how peer pressure may lead to someone being in an unsafe situation regarding drugs/ alcohol. Mental wellbeing and resilience. • Ethics: What does it mean to be good? Ethical theories and how they impact the way a person may respond to a number of different situations. 	<p>Students will develop their skills in:</p> <ul style="list-style-type: none"> • Posing and suggesting answers to questions of belonging, identity, meaning, purpose, truth and commitment relating these to their own lives and other's lives • Explaining what inspires and influences them, expressing their own and other's views of the challenges of belonging to religion • Connecting religious ideas and practices Articulating their own personal responses to ultimate questions • Taking a proactive part in decision making activities with your peers • Respecting the views of others • Explaining the importance of key religious beliefs and philosophical/ ethical beliefs. Evaluating different opinions and drawing out different arguments.

PE

Knowledge	Skills
<p>Students will develop their knowledge of:</p> <ul style="list-style-type: none">• more advanced skills, techniques and tactics used in sports and physical activities• rules and regulations for a range of sports• the immediate effects of exercise on the body and training methods to improve sporting performance• linking muscle names to specific joint movement across a range of activities• more advanced compositional ideas to improve performance in Dance• safety factors during physical activity and sport for more advanced activities (e.g. scrummaging in rugby)• the benefits of leading fit and healthy lifestyles including extracurricular sports clubs	<p>Students will develop their skills in:</p> <ul style="list-style-type: none">• racquet, striking and fielding, invasion games, athletics, dance, health related exercise• teamwork• techniques in a range of sports in increasingly complex drills under pressure• overcoming challenging opponents in competitive situations in team and individual games (e.g. rugby/netball).• pressured decision making in competitive sports, including some analysis of opponents' strategies• identifying strengths and weaknesses of their own and others' work and suggesting improvements• leadership of warm-ups, basic drills and cool downs.