Achievement on a page: Year 9 – Learning area achievement standards

English

Receptive modes (listening, reading and viewing)

By the end of Year 9, students analyse the ways that text structures can be manipulated for effect. They analyse and explain how images, vocabulary choices and language features distinguish the work of individual authors.

They evaluate and integrate ideas and information from texts to form their own interpretations. They select evidence from texts to analyse and explain how language choices and conventions are used to influence an audience. They listen for ways texts position an audience.

Productive modes (speaking, writing and creating)

Students understand how to use a variety of language features to create different levels of meaning. They understand how interpretations can vary by comparing their responses to texts to the responses of others. In creating texts, students demonstrate how manipulating language features and images can create innovative texts.

Students create texts that respond to issues, interpreting and integrating ideas from other texts. They make presentations and contribute actively to class and group discussions, comparing and evaluating responses to ideas and issues. They edit for effect, selecting vocabulary and grammar that contribute to the precision and persuasiveness of texts and using accurate spelling and punctuation.

Mathematics

By the end of Year 9, students solve problems involving simple interest. They interpret ratio and scale factors in similar figures. Students explain similarity of triangles. They recognise the connections between similarity and the trigonometric ratios. Students compare techniques for collecting data from primary and secondary sources. They make sense of the position of the mean and median in skewed, symmetric and bi-modal displays to describe and interpret data.

Students apply the index laws to numbers and express numbers in scientific notation. They expand binomial expressions. They find the distance between two points on the Cartesian plane and the gradient and midpoint of a line segment. They sketch linear and non-linear relations. Students calculate areas of shapes and the volume and surface area of right prisms and cylinders. They use Pythagoras' Theorem and trigonometry to find unknown sides of right-angled triangles. Students calculate relative frequencies to estimate probabilities, list outcomes for two-step experiments and assign probabilities for those outcomes. They construct histograms and back-to-back stem-and-leaf plots.

Science

By the end of Year 9, students explain chemical processes and natural radioactivity in terms of atoms and energy transfers and describe examples of important chemical reactions. They describe models of energy transfer and apply these to explain phenomena. They explain global features and events in terms of geological processes and timescales. They analyse how biological systems function and respond to external changes with reference to interdependencies, energy transfers and flows of matter. They describe social and technological factors that have influenced scientific developments and predict how future applications of science and technology may affect people's lives.

Students design questions that can be investigated using a range of inquiry skills. They design methods that include the control and accurate measurement of variables and systematic collection of data and describe how they considered ethics and safety. They analyse trends in data, identify relationships between variables and reveal inconsistencies in results. They analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence. They evaluate others' methods and explanations from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences.

History

By the end of Year 9, students refer to key events and the actions of individuals and groups to explain patterns of change and continuity over time. They analyse the causes and effects of events and developments and make judgments about their importance. They explain the motives and actions of people at the time. Students explain the significance of these events and developments over the short and long term. They explain different interpretations of the past.

Students sequence events and developments within a chronological framework, with reference to periods of time and their duration. When researching, students develop different kinds of questions to frame a historical inquiry. They interpret, process, analyse and organise information from a range of primary and secondary sources and use it as evidence to answer inquiry questions. Students examine sources to compare different points of view. When evaluating these sources, they analyse origin and purpose, and draw conclusions about their usefulness. They develop their own interpretations about the past. Students develop texts, particularly explanations and discussions, incorporating historical interpretations. In developing these texts and organising and presenting their conclusions, they use historical terms and concepts, evidence identified in sources, and they reference these sources.

Geography

By the end of Year 9, students explain how geographical processes change the characteristics of places. They analyse interconnections between people, places and environments and explain how these interconnections influence people, and change places and environments. They predict changes in the characteristics of places over time and identify the possible implications of change for the future. Students analyse alternative strategies to a geographical challenge using environmental, social and economic criteria.

Students use initial research to identify geographically significant questions to frame an inquiry. They evaluate a range of primary and secondary sources to select and collect relevant and reliable geographical information and data. They record and represent multi-variable data in a range of appropriate digital and non-digital forms, including a range of maps that comply with cartographic conventions. They use a range of methods and digital technologies to interpret and analyse maps, data and other information to propose explanations for patterns, trends, relationships and anomalies across time and space, and to predict outcomes. Students synthesise data and information to draw reasoned conclusions. They present findings, arguments and explanations using relevant geographical terminology and digital representations in a range of appropriate communication forms. Students propose action in response to a geographical challenge, taking account of environmental, economic and social factors, and predict the outcomes and consequences of their proposal.

Civics and Citizenship

By the end of Year 9, students evaluate features of Australia's political system, and identify and analyse the influences on people's political choices. They explain the key principles of Australia's system of justice and analyse the role of Australia's court system. They analyse a range of factors that influence identities and attitudes to diversity. They reflect on how groups participate and contribute to civic life.

When researching, students analyse a range of questions to investigate Australia's political and legal systems and critically analyse information gathered from different sources for relevance and reliability. They compare and account for different interpretations and points of view on civics and citizenship issues. When planning for action, students take into account multiple perspectives, use democratic processes, and negotiate solutions to an issue. Students develop and present evidence-based arguments on civics and citizenship issues using appropriate texts, subject-specific language and concepts. They analyse ways they can be active and informed citizens in different contexts.

Economics and Business

By the end of Year 9, students explain the role of the Australian economy in allocating and distributing resources, and analyse the interdependence of participants in the global economy. They explain the importance of managing financial risks and rewards and analyse the different strategies that may be used. They explain why businesses seek to create a competitive advantage, including through innovation, and evaluate the strategies that may be used. Students analyse the roles and responsibilities of participants in the workplace.

When researching, students develop questions and simple hypotheses to frame an investigation of an economic or business issue. They gather and analyse relevant data and information from different sources to answer questions, identify trends and explain relationships. Students generate alternative responses to an issue and use cost-benefit analysis and appropriate criteria to propose a course of action. They apply economics and business knowledge, skills and concepts to familiar, unfamiliar and hypothetical problems. Students develop and present evidence-based conclusions and reasoned arguments using appropriate texts, subject-specific language and concepts. They analyse the effects of economic and business decisions and the potential consequences of alternative actions.

Health and Physical Education – Years 9-10

By the end of Year 10, students critically analyse contextual factors that influence identities, relationships, decisions and behaviours. They analyse the impact attitudes and beliefs about diversity have on community connection and wellbeing. They evaluate the outcomes of emotional responses to different situations. Students access, synthesise and apply health information from credible sources to propose and justify responses to health situations. Students propose and evaluate interventions to improve fitness and physical activity levels in their communities. They examine the role physical activity has played historically in defining cultures and cultural identities.

Students demonstrate leadership, fair play and cooperation across a range of movement and health contexts. They apply decision-making and problem-solving skills when taking action to enhance their own and others' health, safety and wellbeing. They apply and transfer movement concepts and strategies to new and challenging movement situations. They apply criteria to make judgements about and refine their own and others' specialised movement skills and movement performances. They work collaboratively to design and apply solutions to movement challenges.

Achievement on a page: Year 9 – Subject specific achievement standards are provided as an option

The Arts – Years 9-10				
Dance By the end of Year 10, students analyse the choreographer's use of the elements of dance, choreographic devices, form and production elements to communicate choreographic intent in dances they make, perform and view. They evaluate the impact of dance from different cultures, places and times on Australian dance.	**Drama** By the end of Year 10, students analyse the elements of drama, forms and performance styles and evaluate meaning and aesthetic effect in drama they devise, interpret, perform and view. They use their experiences of drama practices from different cultures, places and times to evaluate drama from different viewpoints.	**Media Arts** By the end of Year 10, students analyse how social and cultural values and alternative points of view are portrayed in media artworks they make, interact with and distribute. They evaluate how genre and media conventions and technical and symbolic elements are manipulated to make representations and meaning. They evaluate how social, institutional and ethical issues influence the making and use of media artworks.	**Music** By the end of Year 10, students analyse different scores and performances aurally and visually. They evaluate the use of elements of music and defining characteristics from different musical styles. They use their understanding of music making in different cultures, times and places to inform and shape their interpretations, performances and compositions.	**Visual Arts** By the end of Year 10, students evaluate how representations communicate artistic intentions in artworks they make and view. They evaluate artworks and displays from different cultures, times and places. They analyse connections between visual conventions, practices and viewpoints that represent their own and others' ideas. They identify influences of other artists on their own artworks.
Students choreograph dances by manipulating and combining the elements of dance, choreographic devices, form and production elements to communicate their choreographic intent. They choreograph, rehearse and perform dances, demonstrating technical and expressive skills appropriate to the genre and style.	Students develop and sustain different roles and characters for given circumstances and intentions. They perform devised and scripted drama in different forms, styles and performance spaces. They collaborate with others to plan, direct, produce, rehearse and refine performances. They select and use the elements of drama, narrative and structure in directing and acting to engage audiences. They refine performance and expressive skills in voice and movement to convey dramatic action.	Students produce representations that communicate alternative points of view in media artworks for different community and institutional contexts. They manipulate genre and media conventions and integrate and shape the technical and symbolic elements for specific purposes, meaning and style. They collaboratively apply design, production and distribution processes.	Students interpret, rehearse and perform solo and ensemble repertoire in a range of forms and styles. They interpret and perform music with technical control, expression and stylistic understanding. They use aural skills to recognise elements of music and memorise aspects of music such as pitch and rhythm sequences. They use knowledge of the elements of music, style and notation to compose, document and share their music.	Students manipulate materials, techniques and processes to develop and refine techniques and processes to represent ideas and subject matter in their artworks.

Technologies – Years 9-10	
Design and Technologies By the end of Year 10, students explain how people working in design and technologies occupations consider factors that impact on design decisions and the technologies used to produce products, services and environments. They identify the changes necessary to designed solutions to realise preferred futures they have described. When producing designed solutions for identified needs or opportunities, students evaluate the features of technologies and their appropriateness for purpose for one or more of the technologies contexts. Students create designed solutions for one or more of the technologies contexts based on a critical evaluation of needs or opportunities. They establish detailed criteria for success, including sustainability considerations, and use these to evaluate their ideas and designed solutions and processes. They create and connect design ideas and processes of increasing complexity and justify decisions. Students communicate and document projects, including marketing for a range of audiences. They independently and collaboratively apply sequenced production and management plans when producing designed solutions, making adjustments to plans when necessary. They select and use appropriate technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.	**Digital Technologies** By the end of Year 10, students explain the control and management of networked digital systems and the security implications of the interaction between hardware, software and users. They explain simple data compression, and why content data are separated from presentation. Students plan and manage digital projects using an iterative approach. They define and decompose complex problems in terms of functional and non-functional requirements. Students design and evaluate user experiences and algorithms. They design and implement modular programs, including an object-oriented program, using algorithms and data structures involving modular functions that reflect the relationships of real-world data and data entities. They take account of privacy and security requirements when selecting and validating data. Students test and predict results and implement digital solutions. They evaluate information systems and their solutions in terms of risk, sustainability and potential for innovation and enterprise. They share and collaborate online, establishing protocols for the use, transmission and maintenance of data and projects.