Achievement on a page: Year 5 – Learning area achievement standards

### Mathematics

By the end of Year 5, students solve simple problems involving the four operations using a range of strategies. They check the reasonableness of answers using estimation and rounding. Students identify and describe factors and multiples. They identify and explain strategies for finding unknown quantities in number sentences involving the four operations. They explain plans for simple budgets. Students connect three-dimensional objects with their two-dimensional representations. They describe transformations of two-dimensional shapes and identify line and rotational symmetry.

Students interpret different data sets. Students order decimals and unit fractions and locate them on number lines. They add and subtract fractions with the same denominator. Students continue patterns by adding and subtracting fractions and decimals. They use appropriate units of measurement for length, area, volume, capacity and mass, and calculate perimeter and area of rectangles. They convert between 12- and 24-hour time.

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By the end of Year 6, students explain how ideas are communicated in artworks they make and to which they respond. They describe characteristics of artworks, their two-dimensional representations, and label parts of patterns. They describe transformations of two-dimensional shapes and identify line and rotational symmetry.

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### Science

By the end of Year 5, students classify substances according to their observable properties and behaviours. They explain everyday phenomena associated with the transfer of light. They describe the key features of our solar system. They analyse how the form of living things enables them to function in their environments. Students discuss how scientific developments have affected people’s lives, help us solve problems and how science knowledge develops from many people’s contributions.

Students collect and interpret data and describe patterns in the data. They compare patterns in their data with data from other sources. They identify different viewpoints. They interpret data to identify trends and make predictions when suggesting explanations. They describe ways to improve the fairness of investigations.

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### Health and Physical Education – Years 5-6

By the end of Year 5, students investigate developmental changes and transitions. They explain the influence of people and places on identities. They recognise the influence of emotions on behaviours and discuss factors that influence how people interact. They describe their own and others’ contributions to health, physical activity, safety and wellbeing. They describe the key features of health-related fitness and the significance of physical activity participation to health and wellbeing. They examine how physical activity, celebrating diversity and connecting to the environment support community wellbeing and cultural understanding.

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By the end of Year 6, students explain how social, ethical, technical and sustainability considerations influence the design of solutions to meet a range of present and future needs. They explain how the features of technologies influence design decisions and how digital systems are connected to form networks. They describe how the features of technologies influence design decisions and how digital systems are connected to form networks. They describe how the features of technologies influence design decisions and how digital systems are connected to form networks. They describe how the features of technologies influence design decisions and how digital systems are connected to form networks.

### Humanities and Social Sciences

By the end of Year 5, students describe the significance of people and events/developments in bringing about change. They identify the causes and effects of change on particular communities and describe aspects of the past that have remained the same. They describe the experiences of different people in the past. Students explain the characteristics of places in different locations at local to national scales. They identify and describe the interconnections between people and the human and environmental characteristics of places, and between components of environments. They identify the effects of these interconnections on the characteristics of places and environments. Students identify the importance of values and processes to Australia’s democracy and describe the roles of different people in Australia’s legal system. They recognise that choices need to be made when allocating resources. They describe factors that influence their choices as consumers and identify strategies that can be used to inform these choices. They describe different views on how to respond to an issue or challenge.

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### The Arts – Year 5-6

The Arts

By the end of Year 5, students explain how ideas are communicated in artworks they make and to which they respond. They describe characteristics of artworks from different social, historical and cultural contexts that influence their art making. Students structure elements and processes of arts subjects to make artworks that communicate meaning. They work collaboratively to share artworks for audiences, demonstrating skills and techniques.

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### Humanities and Social Sciences

#### History
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Students sequence information about events and the lives of individuals in chronological order using timelines. When researching, students develop questions for a historical inquiry. They identify a range of sources and locate, collect and organise information related to this inquiry. They analyse sources to determine their origin and purpose and to identify different viewpoints. Students develop, organise and present their texts, particularly narrative recounts and descriptions, using historical terms and concepts.

#### Geography
By the end of Year 5, students describe the location of selected countries in relative terms. They explain the characteristics of places in different locations at local to national scales. They identify and describe the interconnections between people and the human and environmental characteristics of places, and between components of environments. They identify the effects of these interconnections on the characteristics of places and environments. They identify and describe different possible responses to a geographical challenge.

Students develop appropriate geographical questions for an investigation. They locate, collect and organise data and information from a range of sources to answer inquiry questions. They represent data and the location of places and their characteristics in graphic forms, including large-scale and small-scale maps that use the cartographic conventions of border, scale, legend, title and north point. They describe the location of places and their characteristics using compass direction and distance. Students interpret maps, geographical data and other information to identify and describe spatial distributions, simple patterns and trends, and suggest conclusions. They present findings and ideas using geographical terminology in a range of communication forms. They propose action in response to a geographical challenge and identify the possible effects of their proposed action.

#### Civics and Citizenship
By the end of Year 5, students identify the importance of values and processes to Australia’s democracy and describe the roles of different people in Australia’s legal system. They identify various ways people can participate effectively in groups to achieve shared goals and describe different views on how to respond to a current issue or challenge.

Students develop questions for an investigation about the society in which they live. They locate and collect information from different sources to answer these questions. They examine sources to determine their purpose and identify different viewpoints. They interpret information to suggest conclusions based on evidence. Students identify possible solutions to an issue as part of a plan for action and reflect on how they work together. They present their ideas, conclusions and viewpoints in a range of communication forms using civics and citizenship terms and concepts.

#### Economics and Business
By the end of Year 5, students distinguish between needs and wants and recognise that choices need to be made when allocating resources. They describe factors that influence their choices as consumers. Students identify individual strategies that can be used to make informed consumer and financial choices.

Students develop questions for an investigation about an economics or business issue or event. They locate and collect data and information from a range of sources to answer these questions. They examine sources to determine their purpose and suggest conclusions based on evidence. They interpret, sort and represent data in different formats. They generate alternative responses to an issue or challenge and reflect on their learning to propose action, describing the possible effects of their decision. Students apply economics and business skills to everyday problems. They present their ideas, findings and conclusions in a range of communication forms using economics and business terms.

### The Arts – Years 5-6

#### Dance
By the end of Year 6, students explain how the elements of dance, choreographic devices and production elements communicate meaning in dances they make, perform and view. They describe characteristics of dances from different social, historical and cultural contexts that influence their dance making.

Students structure movements in dance sequences and use elements of dance and choreographic devices to make dances that communicate meaning. They work collaboratively to perform dances for audiences, demonstrating technical and expressive skills.

#### Drama
By the end of Year 6, students explain how dramatic action and meaning is communicated in drama they make, perform and view. They explain how drama from different cultures, times and places influences their own drama making.

Students work collaboratively as they use the elements of drama to shape character, voice and movement in improvisation, playbuilding and performances of devised and scripted drama for audiences.

#### Media Arts
By the end of Year 6, students explain how points of view, ideas and stories are shaped and portrayed in media artworks they make, share and view. They explain the purposes and audiences for media artworks made in different cultures, times and places.

Students work collaboratively using technologies to make media artworks for specific audiences and purposes using story, principles to shape points of view and genre conventions, movement and lighting.

#### Music
By the end of Year 6, students explain how the elements of music are used to communicate meaning in the music they listen to, compose and perform. They describe how their music making is influenced by music and performances from different cultures, times and places.

Students use rhythm, pitch and form symbols and terminology to compose and perform music. They sing and play music in different styles, demonstrating aural, technical and expressive skills by singing and playing instruments with accurate pitch, rhythm and expression in performances for audiences.

#### Visual Arts
By the end of Year 6, students explain how ideas are represented in artworks they make and view. They describe the influences of artworks and practices from different cultures, times and places on their art making.

Students use visual conventions and visual arts practices to express a personal view in their artworks. They demonstrate different techniques and processes in planning and making artworks. They describe how the display of artworks enhances meaning for an audience.

### Technologies – Years 5-6

#### Design and Technologies
By the end of Year 6, students describe competing considerations in the design of products, services and environments, taking into account sustainability. They describe how design and technologies contribute to meeting present and future needs. Students explain how the features of technologies impact on designed solutions for each of the prescribed technologies contexts.

Students create designed solutions for each of the prescribed technologies contexts suitable for identified needs or opportunities. They suggest criteria for success, including sustainability considerations, and use these to evaluate their ideas and designed solutions. They combine design ideas and communicate these to audiences using graphical representation techniques and technical terms. Students record project plans including production processes, they select and use appropriate technologies and techniques correctly and safely to produce designed solutions.

#### Digital Technologies
By the end of Year 6, students explain the fundamentals of digital system components (hardware, software and networks) and how digital systems are connected to form networks. They explain how digital systems use whole numbers as a basis for representing a variety of data types.

Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. They incorporate decision-making, repetition and user interface design into their designs and implement their digital solutions, including a visual program. They explain how information systems and their solutions meet needs and consider sustainability. Students manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols.