(no-code)

investigate the main of common and their function

•

Elaborations

• explaining how are made up of parts that perform specific functions, for example the processor controls the , performs calculations and manipulates
• exploring how the central processing unit (CPU), memory and /output work together to perform a simple calculation
• investigating the main in a video conferencing system and their functions, for example a telehealth system used to access ultrasound and other imagery services by communities in areas classified as remote such as those of some First Nations Australians

Students learn to:

investigate the main internal components of common digital systems and their func

(AC9TDI6K01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Managing and operating

• Select and operate tools

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Managing and operating

• Select and operate tools

Managing and operating

• Select and operate tools

Managing and operating

• Select and operate tools

Culture

• First Nations Australians' ways of life reflect unique ways of being, knowing, thinking and doing.

Resources

Work Samples

Explanation: School networks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks

• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Resource – Explanation: School networks

By the end of Year 6 students explain how people design products, services and environments to meet the needs of communities, including sustainability. For each of the 3 prescribed technologies contexts students explain how the features of technologies impact on design decisions and they create designed solutions. They process data and show how digital systems represent data, design algorithms involving complex branching and iteration, and implement them as visual programs including variables. They select and justify design ideas and solutions against design criteria. Students share and communicate ideas or content to an audience using technical terms, graphical representation techniques and appropriate digital tools. They develop project plans, including production processes, and select technologies and techniques to safely produce designed or digital solutions. Students securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. They identify their digital footprint and recognise its permanence.

By the end of Year 6 students develop and modify digital solutions, and define problems and evaluate solutions using user stories and design criteria. They process data and show how digital systems represent data. Students design algorithms involving complex branching and iteration and implement them as visual programs including variables. They securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. Students select and use appropriate digital tools effectively to plan, create, locate and share content, and to collaborate, applying agreed conventions and behaviours. They identify their digital footprint and recognise its permanence.

AC9TDI6K01

investigate the main internal components of common digital systems and their function

AC9TDI6K02

examine how digital systems form networks to transmit data

AC9TDI6P09

access multiple personal accounts using unique passphrases and explain the risks of password re-use

AC9TDI6K02

examine how form networks to transmit

•

Elaborations

• explaining how separate systems can be connected in different ways to exchange , for example how a laptop can be connected to a network via a cable or radio waves
• describing the way is structured and transmitted through a network, for example broken up■into packets (small pieces) and passed from the source, through multiple devices, to the■destination
• investigating the use of satellite phones where mobile phone networks are not available, inaccessible or unreliable, for example many homeland communities of Arnhem Land have limited access to mainstream communication networks

Students learn to:

examine how digital systems form networks to transmit data

(AC9TDI6K02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Managing and operating

• Select and operate tools

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Managing and operating

• Select and operate tools

Managing and operating

• Select and operate tools

Managing and operating

• Select and operate tools

People

• Australia has 2 distinct First Nations Peoples; each encompasses a diversity of nations across Australia. Aboriginal Peoples are the first peoples of Australia and have occupied the Australian continent for more than 60,000 years. Torres Strait Islander Peoples are the First Nations Peoples of the Torres Strait and have occupied the region for over 4,000 years.

Resources

Work Samples

Explanation: School networks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6K02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

AC9TDI6K03

explain how represent all using numbers

•

•

Elaborations

• representing using and recognising this is how , for example converting letters in a message to numbers using their position in the■alphabet

• explaining how the type used to changes the operations that can be performed on it, for example adding numbers performs addition whereas adding strings joins■them

Students learn to:

explain how digital systems represent all data using numbers

(AC9TDI6K03)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Investigating

• Interpret data

Number sense and algebra

• Number and place value

Statistics and probability

• Interpreting and representing data
• Understanding chance

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Investigating

• Interpret data

Investigating

• Interpret data

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9M5ST01
AC9M6N01
AC9M6ST01

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions
• analyse and visualise data using a range of digital tools to identify patterns and make predictions
• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

Snapshot – Number and place value

Numeracy: Number sense and algebra: Number and place value

Content description

AC9TDI6K03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Numeral recognition and identification

• identifies, reads, writes and interprets decimal numbers applying knowledge of the place value periods of tenths, hundredths and thousandths and beyond

Place value

• compares the size of decimals to other numbers including natural numbers and decimals expressed to different numbers of places (e.g. selects 0.35 0.35 0 . 3 5 as the greatest number from the set 0.2 , 0.125 , 0.35 0.2, 0.125, 0.35 0 . 2 , 0 . 1 2 5 , 0 . 3 5 ; explains that 2 2 2 is greater than 1.845 1.845 1 . 8 4 5)
• describes the multiplicative relationship between the adjacent positions in place value for decimals (e.g. understands that 0.2 0.2 0 . 2 is 10 10 1 0 times as great as 0.02 0.02 0 . 0 2 and that 100 100 1 0 0 times 0.005 0.005 0 . 0 0 5 is 0.5 0.5 0 . 5)

• compares and orders decimals greater than one including those expressed to an unequal number of places (e.g. compares the heights of students in the class that are expressed in metres such as 1.6 1.6 1 . 6 m is taller than 1.52 1.52 1 . 5 2 m; correctly orders the numbers 1.4 1.4 1 . 4 , 1.375 1.375 1 . 3 7 5 and 2.15 2.15 2 . 1 5 from least to greatest)
• rounds decimals to one and 2 decimal places for a purpose

Numeral recognition and identification

• reads, represents, interprets and uses negative numbers in computation (e.g. explains that the temperature – 10 10 1 0 °C is colder than the temperature – 2.5 2.5 2 . 5 °C; recognises that negative numbers are less than zero; locates – 12 12 1 2 on a number line)

Place value

• identifies that negative numbers are integers that represent both size and direction (e.g. uses a number line to represent position and order negative numbers; uses negative numbers in financial contexts such as to model an overdrawn account)
• understands that multiplying and dividing numbers by 10 , 100 , 1000 10, 100, 1000 1 0 , 1 0 0 , 1 0 0 0 changes the positional value of the digits (e.g. explains that 100 100 1 0 0 times 0.125 0.125 0 . 1 2 5 is 12.5 12.5 1 2 . 5 because each digit value in 0.125 0.125 0 . 1 2 5 is multiplied by 100 100 1 0 0 , so 100 × 0.1 100 \times 0.1 1 0 0 × 0 . 1 is 10 10 1 0 , 100 × 0.02 100 \times 0.02 1 0 0 × 0 . 0 2 is 2 2 2 and 100 × 0.005 100 \times 0.005 1 0 0 × 0 . 0 0 5 is 0.5 0.5 0 . 5 ; converts between units of centimetres and millimetres when planning, measuring and marking materials for cutting)
• rounds decimals to a specified number of decimal places for a purpose (e.g. the mean distance thrown in a school javelin competition was rounded to 2 2 2 decimal places; if the percentage profit was calculated as 12.467921 12.467921 1 2 . 4 6 7 9 2 1 %, rounds the calculation to 12.5 12.5 1 2 . 5 %)

Numeral recognition and identification

• identifies, reads and interprets very large numbers and very small numbers (e.g. reads that the world population is estimated to be seven billion and interprets this to mean 7 7 7 000 000 0 0 0 000 000 0 0 0 000 000 0 0 0 or 7 × 1 0 9 7 \times 10^9 7 × 1 0 9 ; interprets the approximate mass of protons and neutrons as 1.67 × 1 0 – 24 1.67 \times10^{-24} 1 . 6 7 × 1 0 – 2 4 g; identifies and interprets the value of national government debt)

Place value

• compares and orders very large numbers and very small numbers (e.g. understands the relative size of very large time scales such as a millennium)
• relates place value parts to exponents (e.g. 1000 1000 1 0 0 0 is 100 100 1 0 0 times greater than 10 10 1 0 , and that is why 10 × 1 0 2 = 1 0 3 10 \times 10^2 = 10^3 1 0 × 1 0 2 = 1 0 3 and why 1 0 3 10^3 1 0 3 divided by 10 10 1 0 is equal to 1 0 2 10^2 1 0 2)
• expresses numbers in scientific notation (e.g. when calculating the distance of the Earth from the sun uses 1.5 × 1 0 8 1.5\times 10^8 1 . 5 × 1 0 8 as an approximation; a nanometre has an order of magnitude of – 9 9 9 and is represented as 1 0 – 9 10^{-9} 1 0 – 9)

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9TDI6K03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Collecting, displaying and interpreting categorical data

• designs survey questions to collect categorical data (e.g. creates a suite of survey questions to plan the end of year class party)
• collects, records and displays one-variable data in variety of ways such as tables, charts, plots and graphs using the appropriate digital tools (e.g. uses a spreadsheet to record data collected in a class survey and generates a column graph to display the results)
• displays and interprets categorical data in one-to-many data displays
• interprets and represents categorical data in simple displays such as bar and column graphs, pie charts, models, maps, colour wheels, and pictorial timelines, and makes simple inferences from such

displays
• makes comparisons from categorical data displays using relative heights from a common baseline (e.g. compares the heights of the columns in a simple column graph to determine the tallest and recognises this as the most frequent response)

Collecting, displaying and interpreting numerical data

• collects and records discrete numerical data using an appropriate method for recording (e.g. uses a frequency table to record the experimental results for rolling a dice; records sample measurements taken during a science investigation)
• constructs graphical representations of numerical data and explains the difference between continuous and discrete data (e.g. explains that measurements such as length, mass and temperature are continuous data whereas a count such as the number of people in a queue is discrete)
• explains how data displays can be misleading (e.g. whether a scale should start at zero; not using uniform intervals on the axes)
• interprets visual representations of data displayed using a multi-unit scale, reading values between the marked units and describing any variation and trends in the data

Collecting, displaying, interpreting and analysing numerical data

• poses questions based on variations in continuous numerical data and chooses the appropriate method to collect and record data (e.g. collects information on the heights of buildings or daily temperatures, tabulates the results and represents these graphically; uses a survey to collect primary data or secondary data extracted from census data)
• uses numerical and graphical representations relevant to the purpose of the collection of the data and explains their reasoning (e.g. "I can’t use a frequency histogram for categorical data because there is no numerical connection between the categories"; converts their data to percentages in order to compare the girls' results to those of the boys, as the total number of boys and girls who participated in the survey was different)
• determines and calculates the most appropriate statistic to describe the spread of data (e.g. when creating an infographic, uses the mean of the data to describe household income and the median of the data for house prices)
• calculates simple descriptive statistics such as mode, mean or median as measures to represent typical values of a distribution (e.g. describes the mean kilojoule intake and median hours of exercise of a sample population when investigating community health and wellbeing; describes central tendency when analysing road safety statistics)
• compares the usefulness of different representations of the same data (e.g. chooses to use a line graph to illustrate trends, a bar graph to compare the living standards of different economies and a histogram to show income distribution)
• describes the spread of a data distribution in terms of the range, clusters, skewness and symmetry of the graphical display, and determines and makes connections to the mode, median and mean of the data

Snapshot – Understanding chance

Numeracy: Statistics and probability: Understanding chance

Content description

AC9TDI6K03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Fairness

• identifies all possible outcomes of one-step experiments and records outcomes in tables and charts
• explains why outcomes of chance experiments may differ from expected results (e.g. "just because there are 6 6 6 numbers on a dice doesn’t mean you are going to roll a 6 6 6 every 6 6 6 rolls, you may not roll a 6 6 6 in the entire game")
• explains the difference between the notion of equal likelihood of possible outcomes and those that are not equally likely (e.g. explains the use of phrases such as fifty-fifty when there are 2 2 2 outcomes and when 2 2 2 events occurring are equally likely as opposed to head and tail are more likely than 2 2 2 heads or 2 2 2 tails)
• identifies unfair elements in games that affect the chances of winning (e.g. having an unequal number of turns; weighted dice)

• explains that the outcomes of chance events are either "certain to happen", "certain not to happen" or lie somewhere in between and knows that impossible events are events that are "certain not to happen"
• identifies events where the chance of one event occurring will not affect the occurrence of the other (e.g. if a coin is tossed and heads have come up 7 7 7 times in a row, it is still equally likely that the next toss will be either a head or a tail)

Probabilities

• expresses the theoretical probability of an event as the number of ways an event can happen out of the total number of possibilities
• identifies a range of chance events that have a probability from 0 – 1 0 – 1 0 – 1 (e.g. you have zero probability of rolling a 7 7 7 with one roll of a standard 6 6 6 -sided dice; the probability that tomorrow is Wednesday given today is Tuesday is one)
• describes probabilities as fractions of one (e.g. the probability of an even number when rolling a dice is 3 6 \frac36 6 3 ■)
• expresses probabilities as fractions, decimals, percentages and ratios recognising that all probabilities lie on a measurement scale of zero to one (e.g. uses numerical representations such as 75 75 7 5 % chance of rain or 4 4 4 out 5 5 5 people liked the story; explains why you can't have a probability less than zero)

Calculating probabilities

• determines the probability of compound events and explains why some results have a higher probability than others (e.g. the results from tossing 2 2 2 coins)
• represents diagrammatically all possible outcomes (e.g. tree diagrams, two-way tables, Venn diagrams)
• measures and compares expected results to the actual results of a chance event over a number of trials, and compares and explains the variation in results (e.g. uses probability to determine expected results of a spinner prior to trial)
• recognises that the chance of something occurring or its complement has a total probability of one (e.g. the probability of rolling a 3 3 3 is 1 6 \frac16 6 1 ■ and the probability of not rolling a 3 3 3 is 5 6 \frac56 6 5 ■
• calculates and explains the difference between the probabilities of chance events with and without replacement (e.g. "if we put all of the class names in a hat and draw them out one at a time without putting the name back in, the probability of your name getting called out increases each time because the total number of possible outcomes decreases")
• calculates the probabilities of future events based on historical data (e.g. uses historical rainfall data to plan the date for an outdoor event)

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions
• analyse and visualise data using a range of digital tools to identify patterns and make predictions
• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

• analyse and visualise data using a range of digital tools to identify patterns and make predictions
• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

AC9TDI6K04

explore how can be represented by off and on states (zeros and ones in)

•

Elaborations

• making collaboratively a long thread with beads representing for the letters that spell the name in the local First Nations language and English, and could be displayed as a ‘ banner’ as an Acknowledgement of Country that we are on the Traditional Lands of the Peoples
• demonstrating that an on/off state in a circuit can represent the digits one and zero, and this is how
• recognising how the answer to a yes/no question can be represented using on/off states, for example switching a light on or off in a circuit or a long or short dash (beep) in Morse code

Students learn to:

explore how data can be represented by off and on states (zeros and ones in binary

(AC9TDI6K04)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Investigating

• Interpret data

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Investigating

• Interpret data

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

Investigating

• Interpret data

Investigating

• Interpret data

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9S6U03

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions
• analyse and visualise data using a range of digital tools to identify patterns and make predictions
• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

• analyse and visualise data using a range of digital tools to identify patterns and make predictions

• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

• analyse and visualise data using a range of digital tools to identify patterns and make predictions

• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9TDI6K04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

• analyse and visualise data using a range of digital tools to identify patterns and make predictions

• analyse and visualise data by selecting and using a range of digital tools to infer relationships and make predictions

AC9TDI6P01

define problems with given or co-developed and by creating

•

•

Elaborations

• using provided stimulus to identify an issue and writing a in groups, for example using a newspaper article to develop a , such as: a family in a bushfire or flood-prone environment needs a way to ensure they are prepared in case of an emergency

• discussing possible based on a stimulus, for example the cost, sustainability and timeliness for a roadside bushfire or flood risk rating system

• investigating the impact that feral animals have on native flora and fauna and how this problem has led to economic development opportunities for groups such as the Arnhem Land Progress Aboriginal Corporation

Students learn to:

define problems with given or co-developed design criteria and by creating user sto

(AC9TDI6P01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

Writing

• Creating texts

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Analysing

• Interpret concepts and problems

Design

• Sustainable design requires an awareness of place, past practices, research and technological developments, and balanced judgements based on projected environmental, social and economic impacts.

Country/Place

• The First Peoples of Australia are the Traditional Owners of Country/Place, protected in Australian Law by the Native Title Act 1993 which recognises pre-existing sovereignty, continuing■systems of law and customs, and connection to Country/Place. This recognised legal right provides for economic sustainability and a voice into the development■and management of Country/Place.

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and prioritise significant elements and relationships within a concept or problem

• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area

• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Creating texts

Literacy: Writing: Creating texts

Content description

AC9TDI6P01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• creates informative, imaginative and persuasive texts for a range of learning area purposes, such as to recount a sequence of events; to describe a person, thing or process; to explain a process; to argue with evidence or reasons; to express emotions

• includes learnt ideas on a range of topics from learning areas

• stages text using typical or familiar features such as an introduction and body paragraphs

• supports ideas with some detail and elaboration (e.g. expands on a topic sentence by adding more details in following sentences)

• uses sources to support ideas (e.g. introduces ideas from a shared text to add detail and engage the reader)

Text forms and features

• writes a range of compound and complex sentences (see Grammar)

• uses pronouns correctly to link to an object or person across the text (see Grammar)

• uses images to reinforce ideas in written text

• maintains consistent tense within and between sentences (see Grammar)

• groups sentences on related ideas into simple paragraphs

• uses cohesive vocabulary to indicate order, cause and effect (e.g. uses text connectives such as "next", "since")
• correctly spells some words with irregular spelling patterns (e.g. "cough") (see Spelling)
• applies learnt spelling generalisations
• accurately spells high-frequency words (see Spelling)
• consistently uses correct simple punctuation (e.g. uses commas in a list) (see Punctuation)

Vocabulary

• uses expressive words to describe action and affect the reader (e.g. "tiptoed" instead of "walked")
• uses vocabulary creatively to affect the reader (e.g. repetition, alliteration)
• uses synonyms to replace common and generic words and avoid repetition across a text (e.g. "thrilled" for "excited")
• uses a range of learning area topic words (e.g. "environment", "equipment")

Crafting ideas

• creates informative texts for a broader range of learning area purposes (e.g. explains a life cycle of a butterfly, recounts a process, describes an artwork)
• includes structural features appropriate to the type of text and task such as opening statements to define the topic and at least 2 body paragraphs
• includes ideas which are relevant to the topic and purpose of the text
• organises information into paragraphs to support the reader
• includes a relevant graphic to support the reader (e.g. diagram or photo)

Text forms and features

• uses cohesive devices to signpost sections of text (e.g. uses text connectives such as "finally", "as a result", "in addition")
• uses present or timeless present tense consistently throughout text (e.g. "bears hibernate in winter") (see Grammar)
• selects visual and audio features to expand ideas in written texts (e.g. diagrams, tables, images)
• uses adjectives to create more accurate description (e.g. "the warm-blooded mammal") (see Grammar)

Vocabulary

• uses a range of technical and subject specific words to add detail and authority to information (e.g. "hibernate" instead of "sleep")

Crafting ideas

• creates informative texts that describe, explain and document (e.g. describe an artwork, document the materials and explain why it was created)
• selects structural elements to comprehensively and accurately represent the information (e.g. a fact sheet includes an opening statement, labelled diagrams and text boxes)
• orients the reader to the topic or concept using a definition or classification
• develops ideas with details and examples
• uses ideas derived from research
• uses written and visual supporting evidence

Text forms and features

• uses cohesive devices to link concepts across texts (e.g. uses lexical cohesion such as word associations and synonyms)
• uses cohesive devices to express cause and effect (e.g. uses text connectives such as "therefore", "subsequently")
• includes salient visual and audio features to expand on written information (e.g. creates graphs and other technical diagrams from authentic data)
• uses language to compare (e.g. "alternatively", "whereas")
• uses formatting appropriately to reference and label graphics

Vocabulary

• uses a range of learnt, technical and discipline-specific terms (e.g. "adapt", "survive")
• uses more sophisticated words to express cause and effect (e.g. "therefore", "subsequently")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and prioritise significant elements and relationships within a concept or problem

• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area

• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and prioritise significant elements and relationships within a concept or problem

• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area

• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

AC9TDI6P02

design involving ( ) and

•

•

Elaborations

• designing an or understanding and modifying an existing to fix an error or change functionality, for example exploring issues in drought-prone areas to decide when to water a garden, taking into account humidity as well as soil moisture level

• creating the steps, decisions and loops in and knowing what step they are up to, for example repeating the steps to add 2 digits for each column in multi-digit addition, knowing which column they are adding and when to stop

• constructing more than one sequence of steps that solve the same problem and explaining why one is better than the other, for example specifying the exact route through a maze versus using the right-hand rule that works for all mazes

• a decision that has more than 2 options to select the next step, for example selecting transport IF distance is less than 2■km THEN walk, ELSE IF the distance is less than 5■km THEN ride a bike, ELSE catch the bus

• planning that repeat until a condition is met, for example keep mixing UNTIL the ingredients are combined or subtracting a number UNTIL the result reaches zero

• designing an including and which responds to , for example how First Nations Australian rangers use structured procedures to respond to live tracking that indicates feral buffalo are approaching an environmentally or culturally significant site

Students learn to:

design algorithms involving multiple alternatives (branching) and iteration

(AC9TDI6P02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

Number sense and algebra

• Multiplicative strategies

• Multiplicative strategies

• Number patterns and algebraic thinking

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Systems

• Sustainable patterns of living require the responsible use of resources, maintenance of clean air, water and soils, and preservation or restoration of healthy environments.

Analysing

• Interpret concepts and problems

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Analysing

• Interpret concepts and problems

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9M5N010

AC9M6A03

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and prioritise significant elements and relationships within a concept or problem
• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Multiplicative strategies

Numeracy: Number sense and algebra: Multiplicative strategies

Content description

AC9TDI6P02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Coordinating composite units

• identifies and represents multiplication in various ways and solves simple multiplicative problems using these representations (e.g. represents multiplication as equal groups and arrays)
• identifies and represents division in various ways such as sharing division or grouping division (e.g. to share a carton of 12 12 1 2 eggs equally between 4 4 4 people, draws 12 12 1 2 dots and circles 3 3 3 groups of 4 4 4 with 3 3 3 in each share)
• identifies and represents multiplication and division abstractly using the symbols × \times × and

÷ ÷ ÷ (e.g. represents 3 3 3 groups of 4 4 4 as 3 × 4 3 \times 4 3 × 4 ; uses 9 ÷ 3 9 ÷ 3 9 ÷ 3 to represent 9 9 9 pieces of fruit being equally shared by 3 3 3 people)

Flexible strategies for single digit multiplication and division

• draws on the structure of multiplication to use known multiples in calculating related multiples (e.g. uses multiples of 4 4 4 to calculate multiples of 8 8 8)

• interprets a range of multiplicative situations using the context of the problem to form a number sentence (e.g. to calculate the total number of buttons in 2 containers, each with 5 buttons, uses the number sentence 2 × 5 = 2 \times 5 = 2 × 5 = ?; if a packet of 20 20 2 0 pens is to be shared equally between 4 4 4 , writes 20 ÷ 4 = 20 ÷ 4 = 2 0 ÷ 4 = ?)

• demonstrates flexibility in the use of single-digit multiplication facts (e.g. 7 7 7 boxes of 6 6 6 donuts is 42 42 4 2 donuts altogether because 7 × 6 = 42 7 \times 6 = 42 7 × 6 = 4 2 ; multiplying any factor by one will always give a product of that factor i.e. 1 × 6 = 6 1 \times 6 = 6 1 × 6 = 6 ; if you multiply any number by zero the result will always be zero)

• uses the commutative and distributive properties of multiplication to aid computation when solving problems (e.g. 5 × 6 5 \times 6 5 × 6 is the same as 6 × 5 6 \times 5 6 × 5 ; calculates 7 × 4 7 \times 4 7 × 4 by adding 5 × 4 5 \times 4 5 × 4 and 2 × 4 2 \times 4 2 × 4)

• applies mental strategies for multiplication to division and can justify their use (e.g. to divide 64 64 6 4 by 4 4 4 , halves 64 64 6 4 then halves 32 32 3 2 to get an answer of 16 16 1 6)

• explains the idea of a remainder as what is "left over" from the division (e.g. an incomplete group, lot of, next row or multiple)

Flexible strategies for multiplication and division

• uses multiplication and division as inverse operations to solve problems, including solving problems with digital tools and to justify a solution (e.g. when solving 14 × 14\space\times\space 1 4 × ? = 336 = 336 = 3 3 6 chooses to use division 336 ÷ 14 = 336 ÷ 14 =\space 3 3 6 ÷ 1 4 = ? ; determines how long it will take to save up for a purchase and tests the effect of changing the amount saved each period)

• uses known mental and written strategies such as using the distributive property, partitioning into place value or factors to solve multiplicative problems involving numbers with up to 3 3 3 digits and can justify their use (e.g. 7 × 83 = 7 × 80 + 7 × 3 7 \times 83 = 7 × 80 + 7 × 3 7 × 8 3 = 7 × 8 0 + 7 × 3 ; to multiply a number by 48 48 4 8 , first multiplies by 12 12 1 2 and then multiplies the result by 4 4 4 ; to solve 16 × 15 16 \times 15 1 6 × 1 5 , uses double and half, such as 16 × 15 = 8 × 30 16 \times 15 = 8 \times 30 1 6 × 1 5 = 8 × 3 0)

• uses estimation and rounding to check the reasonableness of products and quotients (e.g. multiplies 200 200 2 0 0 by 30 30 3 0 to determine if 6138 6138 6 1 3 8 is a reasonable answer to 198 × 31 198 \times 31 1 9 8 × 3 1)

Snapshot – Multiplicative strategies

Numeracy: Number sense and algebra: Multiplicative strategies

Content description

AC9TDI6P02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Flexible strategies for single digit multiplication and division

• draws on the structure of multiplication to use known multiples in calculating related multiples (e.g. uses multiples of 4 4 4 to calculate multiples of 8 8 8)

• interprets a range of multiplicative situations using the context of the problem to form a number sentence (e.g. to calculate the total number of buttons in 2 containers, each with 5 buttons, uses the number sentence 2 × 5 = 2 \times 5 = 2 × 5 = ?; if a packet of 20 20 2 0 pens is to be shared equally between 4 4 4 , writes 20 ÷ 4 = 20 ÷ 4 = 2 0 ÷ 4 = ?)

• demonstrates flexibility in the use of single-digit multiplication facts (e.g. 7 7 7 boxes of 6 6 6 donuts is 42 42 4 2 donuts altogether because 7 × 6 = 42 7 \times 6 = 42 7 × 6 = 4 2 ; multiplying any factor by one will always give a product of that factor i.e. 1 × 6 = 6 1 \times 6 = 6 1 × 6 = 6 ; if you multiply any number by zero the result will always be zero)

• uses the commutative and distributive properties of multiplication to aid computation when solving problems (e.g. 5 × 6 5 \times 6 5 × 6 is the same as 6 × 5 6 \times 5 6 × 5 ; calculates 7 × 4 7 \times 4 7 × 4 by adding 5 × 4 5 \times 4 5 × 4 and 2 × 4 2 \times 4 2 × 4)

• applies mental strategies for multiplication to division and can justify their use (e.g. to divide 64 64 6 4 by 4 4 4 , halves 64 64 6 4 then halves 32 32 3 2 to get an answer of 16 16 1 6)
• explains the idea of a remainder as what is "left over" from the division (e.g. an incomplete group, lot of, next row or multiple)

Flexible strategies for multiplication and division

• uses multiplication and division as inverse operations to solve problems, including solving problems with digital tools and to justify a solution (e.g. when solving 14 × 14\space\times\space 1 4 × ? = 336 = 336 = 3 3 6 chooses to use division 336 ÷ 14 = 336 ÷ 14 =\space 3 3 6 ÷ 1 4 = ? ; determines how long it will take to save up for a purchase and tests the effect of changing the amount saved each period)
• uses known mental and written strategies such as using the distributive property, partitioning into place value or factors to solve multiplicative problems involving numbers with up to 3 3 3 digits and can justify their use (e.g. 7 × 83 = 7 × 80 + 7 × 3 7 \times 83 = 7 × 80 + 7 × 3 7 × 8 3 = 7 × 8 0 + 7 × 3 ; to multiply a number by 48 48 4 8 , first multiplies by 12 12 1 2 and then multiplies the result by 4 4 4 ; to solve 16 × 15 16 \times 15 1 6 × 1 5 , uses double and half, such as 16 × 15 = 8 × 30 16 \times 15 = 8 \times 30 1 6 × 1 5 = 8 × 3 0)
• uses estimation and rounding to check the reasonableness of products and quotients (e.g. multiplies 200 200 2 0 0 by 30 30 3 0 to determine if 6138 6138 6 1 3 8 is a reasonable answer to 198 × 31 198 \times 31 1 9 8 × 3 1)

Flexible strategies for multi-digit multiplication and division

• solves multi-step problems involving multiplicative situations using appropriate mental strategies, digital tools and algorithms (e.g. uses a rate of application to determine the amount of paint required to cover a large area and determines how many tins of paint are required)
• interprets, represents and solves multifaceted problems involving all 4 4 4 operations with natural numbers

Snapshot – Number patterns and algebraic thinking

Numeracy: Number sense and algebra: Number patterns and algebraic thinking

Content description

AC9TDI6P02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Generalising patterns

• represents growing patterns where each successive term is determined by multiplying the previous term by a constant, using concrete materials, then summarises the pattern numerically (e.g. constructs a pattern using concrete materials such as tiles then summarises the pattern as 2 , 6 , 18 , 54 2, 6, 18, 54 2 , 6 , 1 8 , 5 4 ...)
• describes rules for copying or continuing patterns where each successive term is found by multiplying or dividing the previous term by the same factor (e.g. to determine the next term in the pattern 1 , 3 , 9 , 27 1, 3, 9, 27 1 , 3 , 9 , 2 7 … multiply by 3 3 3)

Relational thinking

• uses relational thinking to determine the missing values in a number sentence (e.g. 6 + 6 +\space 6 + ? = 7 + 4 = 7 + 4 = 7 + 4)
• uses equivalent number sentences involving addition or subtraction to calculate efficiently or to find an unknown (e.g. 527 + 96 = 527 + 96 = \space 5 2 7 + 9 6 = ? is the same as 527 + 100 – 4 = 527 + 100\space – 4 = \space 5 2 7 + 1 0 0 – 4 = ? ; If 6 + 6 + \space 6 + ? = 8 + 3 = 8 + 3 = 8 + 3 , then as I know 8 = 6 + 2 8 = 6 + 2 8 = 6 + 2 , I can write 8 + 3 8 + 3 8 + 3 as 6 + 2 + 3 6 + 2 + 3 6 + 2 + 3 , which is the same as 6 + 5 6 + 5 6 + 5 therefore '?' is 5 5 5)
• solves numerical equations involving unknowns using the inverse relationship between multiplication and division (e.g. determines the missing number in 2 × 2 \times\space 2 × ? = 10 = 10 = 1 0 knowing 10 ÷ 2 10 ÷ 2 1 0 ÷ 2 is equal to 5 5 5 then ? must be 5 5 5)

Generalising patterns

• creates and interprets tables used to summarise patterns (e.g. the cost of hiring a bike based on the cost per hour)
• identifies a single operation rule in numerical patterns and records it in words (e.g. European

dress size = Australian dress size + 30 +30 + 3 0)
• relates the position number of shapes within a pattern to the rule for the sequence (e.g. number of counters = = = shape number + 2 + 2 + 2)
• determines a higher term of a pattern using the pattern's rule
• extends number patterns to include rational numbers (e.g. 2 , 2 1 4 , 2 1 2 , 2 3 4 , 3 2, 2 \frac14, 2\frac12, 2\frac34, 3 2 , 2 4 1 ■ , 2 2 1 ■ , 2 4 3 ■ , 3 …; 2 , 2, 2 , - 4 , 8 , 4, 8, 4 , 8 , - 16 16 1 6 …; 10 , 9.8 , 9.6 , 9.4 10, 9.8, 9.6, 9.4 1 0 , 9 . 8 , 9 . 6 , 9 . 4 …)

Relational thinking

• solves numerical equations involving one or more operations following conventions of order of operations (e.g. 5 × 2 + 4 = 4 × 2 + 5 \times 2 + 4 = 4 \times 2 + 5 × 2 + 4 = 4 × 2 + ?; 6 + 6 + 6 + ? × 4 = 9 × 2 \times 4 = 9 \times 2 × 4 = 9 × 2)
• identifies and uses equivalence in number sentences to solve multiplicative problems involving numerical equations (e.g. uses a number balance or other materials to represent the number sentence 6 × 4 = 12 × 6 \times 4 = 12 \times 6 × 4 = 1 2 × ? in order to solve a problem)

Representing unknowns

• creates algebraic expressions to represent relationships involving one or more operations (e.g. when n = n = n = number of egg cartons, then the number of eggs can be represented by the expression 12 n 12n 1 2 n ; to find the number of neutrons n n n given the atomic mass A A A and number of protons p p p , uses n = A – p n = A - p n = A – p)
• uses words or symbols to express relationships involving unknown values (e.g. total number of apples = 48 × = 48\space\times = 4 8 × number of boxes; C = 20 + 30 h C = 20 + 30h C = 2 0 + 3 0 h where C C C is the total cost and h h h is the hours of labour; uses v = d t v=\frac dt v = t d ■ to represent the relationship between velocity, distance and time)
• evaluates an algebraic expression or equation by substitution (e.g. uses the formula for force F F F , F = m a F=ma F = m a to calculate the force given the mass m m m and the acceleration a a a)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and prioritise significant elements and relationships within a concept or problem
• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and prioritise significant elements and relationships within a concept or problem
• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and prioritise significant elements and relationships within a concept or problem

• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made
• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made
• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and prioritise significant elements and relationships within a concept or problem
• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made
• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made
• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and prioritise significant elements and relationships within a concept or problem
• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area
• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made

• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDI6P02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and prioritise significant elements and relationships within a concept or problem

• identify the relevant and significant aspects of a concept or problem, understanding that approaches may change depending on the subject or learning area

• identify the relevant aspects of a concept or problem, recognising gaps or missing elements necessary for understanding by using approaches and strategies suitable for the context

AC9TDI6P03

design a for a

•

Elaborations

• designing a on paper or using , for example drawing the designed layout of the landing page of an to order lunches from the school canteen

• designing a to address an identified need, for example including customisable font size and colour contrast to help users who are visually impaired

• how allow people from different cultures and language backgrounds to access information, for example using consistent symbols to represent common actions such as copy, paste and save

Students learn to:

design a user interface for a digital system

(AC9TDI6P03)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Creating and exchanging

• Create, communicate and collaborate

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

AC9TDI6P04

generate, modify, communicate and evaluate designs

•

•

Elaborations

• ideating a range of possible design ideas, discussing them and judging them against the and , for example using the to put design ideas in order of preference in a group discussion
• suggesting modifications to the preferred design idea if it does not satisfy all and , for example modifying a game or game controller so that it can be used by a wider range of players

Students learn to:

generate, modify, communicate and evaluate designs

(AC9TDI6P04)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Evaluate actions and outcomes

Generating

• Create possibilities
• Consider alternatives
• Put ideas into action

Speaking and listening

• Interacting

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Evaluate actions and outcomes

Generating

• Create possibilities
• Consider alternatives

Analysing

• Evaluate actions and outcomes

Generating

• Create possibilities
• Consider alternatives
• Put ideas into action

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9AMA6C01

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways
• create possibilities by changing, combining, or elaborating on new and known ideas in a variety of creative ways

• create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option
• consider alternatives by challenging or creatively adjusting existing ideas in situations where current approaches do not work and recommend a preferred option
• consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• put ideas into action by predicting an outcome, trialling options and assessing their effectiveness
• put ideas into action by predicting potential or future outcomes and systematically testing a range of options
• put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations

Snapshot – Interacting

Literacy: Speaking and listening: Interacting

Content description

AC9TDI6P04

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

• interacts to extend and elaborate ideas in a discussion (e.g. provides an additional example)
• presents simple ideas clearly in group situations
• actively encourages or supports other speakers
• shows awareness of discussion conventions (e.g. uses appropriate language to express agreement and disagreement in class discussions)
• uses language to initiate interactions in a small group situation (e.g. "I have an idea")
• critically evaluate ideas and claims made by a speaker
• explains new learning from interacting with others
• appropriately presents an alternative point to the previous speaker
• initiates interactions confidently in group and whole-class discussions
• poses pertinent questions to make connections between a range of ideas
• uses open questions to prompt a speaker to provide more information
• clarifies task goals and negotiates roles in group learning
• monitors discussion to manage digression from the topic
• identifies and articulates the perspective of a speaker, to move a conversation forward
• interacts within school context or the broader community, adjusting language and responses to suit purpose and audience
• synthesises ideas from group discussion into a common theme or hypothesis
• poses problems, hypothesises and formulates questions about abstract ideas in group situations
• restates different views and makes suggestions to negotiate agreement
• poses questions to clarify assumptions made by the speaker

• questions others to evaluate accuracy of thinking or problem-solving processes
• uses language to align the listener with personal position (e.g. "of course", "as you can imagine", "obviously")

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways
• create possibilities by changing, combining, or elaborating on new and known ideas in a variety of creative ways
• create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option
• consider alternatives by challenging or creatively adjusting existing ideas in situations where current approaches do not work and recommend a preferred option
• consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways

• create possibilities by changing, combining, or elaborating on new and known ideas in a variety of creative ways

• create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

• consider alternatives by challenging or creatively adjusting existing ideas in situations where current approaches do not work and recommend a preferred option

• consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDI6P04

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• put ideas into action by predicting an outcome, trialling options and assessing their effectiveness

• put ideas into action by predicting potential or future outcomes and systematically testing a range of options

• put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations

AC9TDI6P05

implement as involving , and

•

•

Elaborations

• writing and editing programs to solve problems using , and in a environment, for example writing a program to draw a rotated shape a given number of times using Turtle Graphics

• writing programs that take from the user or environment and storing that in a for later use, for example asking the user how many shapes to draw in a circle and using that to calculate the number of and angle to rotate each time

• writing programs that make decisions involving , for example an interactive quiz that checks if the answer is correct, gives feedback and updates the score, or gives a final grade based on the score

• writing programs that repeat multiple steps based on the user's , for example repeatedly drawing a shape a given number of times, shifting the position between each

• stating the expected behaviour of a program, running the program to check it is correct and fixing any errors, for example 'when I press the left arrow key, the cat should move left, finding the cat moves right, and fixing it by changing the 10 to -10 to alter the direction'

• programming to perform automated tasks, such as closing gates, for example simulating the work of First Nations Australian rangers attempting to lure and capture feral■animals

Students learn to:

implement algorithms as visual programs involving control structures, variables an

(AC9TDI6P05)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Creating and exchanging

• Create, communicate and collaborate

Measurement and geometry

• Understanding geometric properties

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Country/Place

• The First Peoples of Australia are the Traditional Owners of Country/Place, protected in Australian Law by the Native Title Act 1993 which recognises pre-existing sovereignty, continuing■systems of law and customs, and connection to Country/Place. This recognised legal right provides for economic sustainability and a voice into the development■and management of Country/Place.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9M6SP03

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Understanding geometric properties

Numeracy: Measurement and geometry: Understanding geometric properties

Content description

AC9TDI6P05

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this

content.

Properties of shapes and object

• identifies, names and classifies two-dimensional shapes according to their side and angle properties (e.g. describes a square as a regular rectangle)
• identifies key features of shapes (e.g. explains that quadrilaterals have 2 2 2 diagonals however they are not always equal in length)
• aligns three-dimensional objects to their two-dimensional nets
• identifies the relationship between the number of faces, edges and the number of vertices of a three-dimensional object (e.g. uses a table to list the number of faces, edges and vertices of common three-dimensional objects and identifies the relationships in the data)

Transformations

• identifies that shapes can have rotational symmetry (e.g. "this drawing of a flower is symmetrical as I can spin it around both ways and it always looks exactly the same")
• creates symmetrical designs using a range of shapes and identifies the type of symmetry as appropriate (e.g. uses symmetry as a stimulus for choreographing a dance; analyses the symmetrical qualities, shapes and lines in examples of Islamic art)
• creates tessellating patterns with common shapes, deciding which will tessellate and which will not by referring to their sides and angles

Angles

• estimates, compares and constructs angles (e.g. uses a ruler and protractor to construct a 45■ angle; compares the size of angles in the environment and estimates their size)
• describes angles in the environment according to their size as acute, obtuse, right, straight, reflex or a revolution and identifies them in shapes and objects (e.g. identifies slope as angles in the environment such as the ramp outside of the school block)

Properties of shapes and objects

• classifies three-dimensional objects according to their properties (e.g. describes the difference between a triangular prism and a triangular pyramid)
• creates two-dimensional nets for pyramids and prisms

Transformations

• uses combinations of reflecting, translating and rotating shapes to describe and create patterns and solve problems
• identifies tessellations used in the environment and explains why some combinations of shapes will tesselate while others will not (e.g. tiling a wall using a combination of different shaped tiles; exploring regular and semi-regular tessellations in architectural design)
• explains the result of changing critical and non-critical properties of shapes (e.g. "if I enlarge a square, it’s still a square, or if I rotate a square, it remains a square, but if I change the length of one of its sides, it’s no longer a square")

Angles

• identifies supplementary and complementary angles and uses them to solve problems
• identifies that angles at a point add to 360 360 3 6 0 ° and that vertically opposite angles are equal and reasons to solve problems

Properties of shapes and objects

• investigates and uses reasoning to explain the properties of a triangle (e.g. explains why the longest side is always opposite the largest angle in a triangle; recognises that the combined length of 2 2 2 sides of a triangle must always be greater than the length of the third side)
• uses relevant properties of common geometrical shapes to determine unknown lengths and angles

Transformations

• enlarges and reduces shapes according to a given scale factor and explains what features change and what stay the same (e.g. says ‘when I double the dimensions of the rectangle, all of the lengths are twice as long as they were, but the size of the angles stay the same)
• applies angle properties to solve problems that involve the transformation of shapes and objects and how they are used in practice (e.g. determines which shapes tessellate)

Angles

• uses angle properties to identify perpendicular and parallel lines (e.g. develops a computer-aided design drawing involving the creation of parallel and perpendicular lines)
• demonstrates that the angle sum of a triangle is 180 180 1 8 0 ■ and uses this to solve problems

- identifies interior angles in shapes to calculate angle sum
- uses angle properties to identify and calculate unknown angles in familiar two-dimensional shapes

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

- use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
- select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

- use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
- select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

- use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
- select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

- use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
- select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P05

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

AC9TDI6P06

evaluate existing and student solutions against the and and their broader community impact

•

•

Elaborations

• evaluating the effectiveness of their own solutions to address the identified problem from the , for example checking if the information created for the local interactive history walk is relevant and meets the council's needs

• evaluating how an existing solution provides users with safety tools and such as those described in the Safety by Design Vision for Young People, for example having a clearly visible button to easily report and block inappropriate behaviour in an or on a website

• reflecting on the many systems that are used in the wider community to address a range of problems, for example timetables to manage transport and other services through to details such as storing licence information so that police can enforce road rules

• verifying the correctness of AI-generated content against information known to be factually accurate; for example, comparing the output from a generative text providing a biography of a local leader with the published on their official website or other authoritative source

Students learn to:

evaluate existing and student solutions against the design criteria and user stories broader community impact

(AC9TDI6P06)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Evaluate actions and outcomes

Reading and viewing

• Understanding texts

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Draw conclusions and provide reasons
• Evaluate actions and outcomes

Analysing

• Draw conclusions and provide reasons
• Evaluate actions and outcomes

Analysing

• Draw conclusions and provide reasons
• Evaluate actions and outcomes

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Understanding texts

Literacy: Reading and viewing: Understanding texts

Content description

AC9TDI6P06

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Comprehension

• reads and views elementary texts (see Text complexity)
• locates information or details embedded in the text
• identifies the main idea in an elementary text
• identifies the purpose of a broad range of informative, imaginative and persuasive texts (e.g. advertisements, diary entry)
• draws inferences and identifies supporting evidence in the text
• monitors the development of ideas using language and visual features (e.g. topic sentences, key verbs, graphs)
• recognises that texts can present different points of view
• distinguishes between fact and opinion in texts
• compares and contrasts texts on the same topic to identify how authors represent the same ideas differently

Processes

• integrates phonic knowledge, word recognition skills, grammatical and contextual knowledge to read elementary texts (see Phonic knowledge and word recognition and Fluency)
• identifies language features that signal purpose in an elementary text (e.g. diagrams, dialogue)
• uses strategies to predict and confirm meaning (e.g. uses sentence structure to predict how ideas will be developed)
• navigates texts using common signposting devices such as headings, subheadings, paragraphs, navigation bars and links

Vocabulary

• interprets creative use of figurative language (e.g. metaphor, simile, onomatopoeia)
• interprets unfamiliar words using grammatical knowledge, morphological knowledge and etymological knowledge
• describes the language and visual features of texts using metalanguage (e.g. grammatical terms such as "cohesion", "tense", "noun groups/phrases")

• recognises how synonyms are used to enhance a text (e.g. "transport", "carry", "transfer")
• draws on knowledge of word origin to work out meaning of discipline-specific terms (e.g. "universe")
• recognises how evaluative and modal words are used to influence the reader (e.g. "important", "should", "dirty")

Comprehension

• reads and views some moderately complex texts (see Text complexity)
• accurately retells a text including most relevant details
• identifies main idea and related or supporting ideas in moderately complex texts (see Text complexity)
• evaluates the accuracy within and across texts on the same topic
• explains how authors use evidence and supporting detail to build and verify ideas
• draws inferences and verifies using textual evidence

Processes

• monitors reading for meaning using grammatical and contextual knowledge (see Fluency)
• explains how textual features support the text's purpose
• identifies and explains techniques used to present perspective (e.g. emotive or descriptive language, order in which ideas are presented)
• predicts the development of ideas based on a partial read (e.g. predicts the final chapter of a narrative, drawing on understanding of the textual features in the previous chapters)
• uses prior knowledge and context to read unknown words (e.g. uses morphemic knowledge of "explosion" to decode "explosive" and uses context and knowledge of metaphorical use of language to understand "explosive outburst")
• uses knowledge of cohesive devices to track meaning throughout a text (e.g. connectives such as "however", "on the other hand") (see Grammar)
• uses knowledge of the features and conventions of the type of text to build meaning (e.g. recognises that the beginning of a persuasive text may introduce the topic and the line of argument)
• identifies language features used to present opinions or points of view
• skims and scans texts for key words to track the development of ideas
• uses sophisticated punctuation to support meaning (e.g. commas to separate clauses in complex sentences)

Vocabulary

• uses knowledge of prefixes and suffixes to read and interpret unfamiliar words
• identifies how technical and discipline-specific words develop meaning in texts
• analyses the effect of antonyms, synonyms and idiomatic language
• understands precise meaning of words with similar connotations (e.g. "generous", "kind-hearted", "charitable")

Comprehension

• reads and views complex texts (see Text complexity)
• identifies the main themes or concepts in complex texts by synthesising key ideas or information
• summarises the text, identifying key details only
• draws inferences, synthesising clues and evidence across a text
• builds meaning by actively linking ideas from a number of texts or a range of digital sources
• distils information from a number of texts according to task and purpose (e.g. uses graphic organisers)
• identifies different interpretations of the text citing evidence from a text
• evaluates language features for relevance to purpose and audience
• analyses texts that have more than one purpose and explains how parts of the text support a particular purpose
• analyses the use of language appropriate to different types of texts (e.g. compare the use of pun in imaginative and persuasive texts)
• identifies techniques used to obscure author's purpose (e.g. inclusion or omission of content)

Processes

• uses processes such as predicting, confirming predictions, monitoring, and connecting relevant elements of the text to build or repair meaning
• uses knowledge of a broader range of cohesive devices to track meaning (e.g. word associations)

(see Grammar)
• selects reading or viewing strategies appropriate to reading purpose (e.g. scans text for evidence)
• judiciously selects texts for learning area tasks and purposes

Vocabulary

• identifies language used to create tone or atmosphere
• analyses language and visual features in texts using metalanguage (e.g. cohesion, interpretation, figurative)
• applies knowledge of base words and word origins to understand the meaning of unfamiliar, discipline-specific words
• uses a range of context and grammatical cues to understand unfamiliar words
• interprets complex figurative language (e.g. euphemisms, hyperbole)

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made
• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made
• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions
• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made
• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made
• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions

• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions

• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

• draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made

• draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDI6P06

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• evaluate the outcome of a task by explaining ideas, conclusions and actions, including using a given set of criteria to support decisions

• evaluate the effectiveness of a course of action or the outcome of a task, including using a given or co-developed set of criteria to support decisions

• evaluate the effectiveness of a course of action or the outcome of a task and account for expected and unexpected results, including using a given or co-developed set of criteria to support decisions

AC9TDI6P07

select and use appropriate effectively to create, locate and communicate content, applying common conventions

•

•

Elaborations

• creating achievable steps and timeframes and identifying needed to produce a solution to a given problem, for example planning what they need to do to create a report on the effectiveness of the school's recycling initiatives

• locating content through search engines and in documents by revising and using required search terms, for example reviewing search results and modifying search terms to make the more accurate

• creating appropriate content that reflects planning as well as new external factors, for example uploading a draft of a report on a local government issue to the teacher for feedback as part of an iterative process

• creating content for a school celebration, for example designing a collaborative spreadsheet that can be used by a small group to plan and cost their graduation party, together with a folder of tagged resources which support the planning

• judging the tone and appropriateness for the intended audience of text generated using autocomplete; for example, deciding that the predictive text was too formal for a conversation with a friend and rewriting it in more casual language

Students learn to:

select and use appropriate digital tools effectively to create, locate and communicat

applying common conventions

(AC9TDI6P07)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Creating and exchanging

• Create, communicate and collaborate

Investigating

• Locate information

Managing and operating

• Select and operate tools

Writing

• Creating texts

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Managing and operating

• Select and operate tools

Futures

• Sustainable futures require individuals to seek information, identify solutions, reflect on and evaluate past actions, and collaborate with and influence others as they work towards a desired change.

Investigating

• Locate information

Creating and exchanging

• Create, communicate and collaborate

Creating and exchanging

• Create, communicate and collaborate

Managing and operating

• Select and operate tools

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HS5S02

AC9HS6S02

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Locate information

Digital Literacy: Investigating: Locate information

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• locate information through search engines and in documents by applying specific search terms, and

selecting and retrieving relevant information from multiple sources
• locate information through search engines and in documents by applying specific search terms based on set criteria, and select and retrieve relevant information from multiple sources
• locate, select and retrieve relevant information from multiple sources, exploring advanced search functions and targeted criteria

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Creating texts

Literacy: Writing: Creating texts

Content description

AC9TDI6P07

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• creates informative, imaginative and persuasive texts for a range of learning area purposes, such as to recount a sequence of events; to describe a person, thing or process; to explain a process; to argue with evidence or reasons; to express emotions
• includes learnt ideas on a range of topics from learning areas
• stages text using typical or familiar features such as an introduction and body paragraphs
• supports ideas with some detail and elaboration (e.g. expands on a topic sentence by adding more details in following sentences)
• uses sources to support ideas (e.g. introduces ideas from a shared text to add detail and engage the reader)

Text forms and features

• writes a range of compound and complex sentences (see Grammar)
• uses pronouns correctly to link to an object or person across the text (see Grammar)
• uses images to reinforce ideas in written text
• maintains consistent tense within and between sentences (see Grammar)
• groups sentences on related ideas into simple paragraphs
• uses cohesive vocabulary to indicate order, cause and effect (e.g. uses text connectives such as "next", "since")
• correctly spells some words with irregular spelling patterns (e.g. "cough") (see Spelling)
• applies learnt spelling generalisations
• accurately spells high-frequency words (see Spelling)
• consistently uses correct simple punctuation (e.g. uses commas in a list) (see Punctuation)

Vocabulary

• uses expressive words to describe action and affect the reader (e.g. "tiptoed" instead of "walked")
• uses vocabulary creatively to affect the reader (e.g. repetition, alliteration)
• uses synonyms to replace common and generic words and avoid repetition across a text (e.g. "thrilled" for "excited")
• uses a range of learning area topic words (e.g. "environment", "equipment")

Crafting ideas

• creates informative texts for a broader range of learning area purposes (e.g. explains a life

cycle of a butterfly, recounts a process, describes an artwork)
• includes structural features appropriate to the type of text and task such as opening statements to define the topic and at least 2 body paragraphs
• includes ideas which are relevant to the topic and purpose of the text
• organises information into paragraphs to support the reader
• includes a relevant graphic to support the reader (e.g. diagram or photo)

Text forms and features

• uses cohesive devices to signpost sections of text (e.g. uses text connectives such as "finally", "as a result", "in addition")
• uses present or timeless present tense consistently throughout text (e.g. "bears hibernate in winter") (see Grammar)
• selects visual and audio features to expand ideas in written texts (e.g. diagrams, tables, images)
• uses adjectives to create more accurate description (e.g. "the warm-blooded mammal") (see Grammar)

Vocabulary

• uses a range of technical and subject specific words to add detail and authority to information (e.g. "hibernate" instead of "sleep")

Crafting ideas

• creates informative texts that describe, explain and document (e.g. describe an artwork, document the materials and explain why it was created)
• selects structural elements to comprehensively and accurately represent the information (e.g. a fact sheet includes an opening statement, labelled diagrams and text boxes)
• orients the reader to the topic or concept using a definition or classification
• develops ideas with details and examples
• uses ideas derived from research
• uses written and visual supporting evidence

Text forms and features

• uses cohesive devices to link concepts across texts (e.g. uses lexical cohesion such as word associations and synonyms)
• uses cohesive devices to express cause and effect (e.g. uses text connectives such as "therefore", "subsequently")
• includes salient visual and audio features to expand on written information (e.g. creates graphs and other technical diagrams from authentic data)
• uses language to compare (e.g. "alternatively", "whereas")
• uses formatting appropriately to reference and label graphics

Vocabulary

• uses a range of learnt, technical and discipline-specific terms (e.g. "adapt", "survive")
• uses more sophisticated words to express cause and effect (e.g. "therefore", "subsequently")

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Locate information

Digital Literacy: Investigating: Locate information

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• locate information through search engines and in documents by applying specific search terms, and selecting and retrieving relevant information from multiple sources
• locate information through search engines and in documents by applying specific search terms based on set criteria, and select and retrieve relevant information from multiple sources
• locate, select and retrieve relevant information from multiple sources, exploring advanced search functions and targeted criteria

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults
• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups
• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6P07

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

AC9TDI6P08

select and use appropriate effectively to share content online, plan tasks and collaborate on projects, demonstrating agreed behaviours

•
•

Elaborations

• following a previously created plan to report back to the class on a given problem, using , for example small groups reporting on the best location for a new skate park in the local government area
• defining and acting collectively using online community standards and valuing the work of others,

for example moderating language and behaviour in an online class forum, not deleting the work of collaborators, and respecting others' intellectual property
• naming, organising and storing files in a way that allows for easy retrieval of shared content, for example labelling the main folders by topic, such as school garden project, and then creating sub-folders for each section of the project, such as 'plans', 'designs' and■'implementation'
• demonstrating agreed behaviours; following cultural protocols, including relevant permissions and attributions; acknowledging diversity, capability and strength; and addressing risks and responsibilities such as , , and accuracy of ; for example when sharing images of First Nations Australians' cultural artefacts
• using a range of communication tools to share ideas and information with stakeholders, for example presenting content for a school celebration such as a graduation celebration with the parents and citizens association or school executive in an online forum
Students learn to:

select and use appropriate digital tools effectively to share content online, plan task collaborate on projects, demonstrating agreed behaviours

(AC9TDI6P08)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Creating and exchanging

• Create, communicate and collaborate

Practising digital safety and wellbeing

• Manage online safety

Managing and operating

• Protect content
• Select and operate tools

Social management

• Communication

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Creating and exchanging

• Create, communicate and collaborate

Social management

• Communication

Practising digital safety and wellbeing

• Manage online safety

Social management

• Collaboration

Managing and operating

• Manage content

Creating and exchanging

• Respect intellectual property

Culture

• First Nations Australian societies are diverse and have distinct cultural expressions such as language, customs and beliefs. As First Nations Peoples of Australia, they have the right to maintain, control, protect and develop their cultural expressions, while also maintaining the right to control, protect and develop culture as Indigenous Cultural and Intellectual Property.

Managing and operating

• Select and operate tools

Social management

• Communication
• Collaboration

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HP6P08

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Manage online safety

Digital Literacy: Practising digital safety and wellbeing: Manage online safety

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• report negative or harmful online behaviour by seeking help from trusted adults

• report negative or harmful online behaviour to trusted adults and know how to report it in online tools

• recognise when to step away from negative online social interactions

• identify online abuse and bullying and report them to trusted adults, appropriate authorities and in online tools

• stop engaging in negative online social interactions

Snapshot – Protect content

Digital Literacy: Managing and operating: Protect content

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• save and access content in shared folders using their individual school account

• protect content when sharing with peers and trusted adults by setting appropriate access controls

• protect content when sharing by selecting appropriate access controls for individuals and shared links for wider groups

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks

• attempt to solve a problem individually and with peers before seeking help

• select and use the core features of digital tools to efficiently complete tasks

• troubleshoot basic problems and identify repetitive tasks to automate

• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks

• troubleshoot common problems and automate repetitive tasks

Snapshot – Communication

Personal and Social capability: Social management: Communication

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• apply verbal and non-verbal communication skills when responding to others

• apply skills to address factors that influence verbal and non-verbal communication

• demonstrate communication skills in a range of contexts, responding to the enablers of, and barriers to, effective verbal and non-verbal communication

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

• select and control a variety of features in appropriate digital tools to create content and communicate and collaborate with trusted groups

• select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups

Snapshot – Communication

Personal and Social capability: Social management: Communication

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• apply verbal and non-verbal communication skills when responding to others

• apply skills to address factors that influence verbal and non-verbal communication

• demonstrate communication skills in a range of contexts, responding to the enablers of, and barriers to, effective verbal and non-verbal communication

Snapshot – Manage online safety

Digital Literacy: Practising digital safety and wellbeing: Manage online safety

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• report negative or harmful online behaviour by seeking help from trusted adults

• report negative or harmful online behaviour to trusted adults and know how to report it in online tools

• recognise when to step away from negative online social interactions

• identify online abuse and bullying and report them to trusted adults, appropriate authorities and in online tools

• stop engaging in negative online social interactions

Snapshot – Collaboration

Personal and Social capability: Social management: Collaboration

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• perform designated roles within groups, appreciating everyone’s contributions to a shared outcome

• coordinate contributions of group members, suggesting improvements to ways of working and collaborative outputs

• appreciate diverse perspectives in a range of collaborative contexts, and demonstrate negotiation

skills to improve ways of working and outputs

Snapshot – Manage content

Digital Literacy: Managing and operating: Manage content

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• save and retrieve content in agreed locations with an appropriate name
• store content using appropriate names and folders for ease of retrieval
• store and backup content online for access and editing from multiple devices

Snapshot – Respect intellectual property

Digital Literacy: Creating and exchanging: Respect intellectual property

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• respect products created by someone else by acknowledging when they use them and use strategies such as indicating the source
• respect intellectual property by identifying the legal obligations regarding the ownership and appropriate use of products, exploring copyright protocols and applying some referencing conventions
• respect intellectual property by applying practices that comply with ethical and legal obligations, referencing conventions and copyright protocols

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• select and use a range of digital tools to complete tasks
• attempt to solve a problem individually and with peers before seeking help
• select and use the core features of digital tools to efficiently complete tasks
• troubleshoot basic problems and identify repetitive tasks to automate
• select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
• troubleshoot common problems and automate repetitive tasks

Snapshot – Communication

Personal and Social capability: Social management: Communication

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• apply verbal and non-verbal communication skills when responding to others
• apply skills to address factors that influence verbal and non-verbal communication
• demonstrate communication skills in a range of contexts, responding to the enablers of, and barriers to, effective verbal and non-verbal communication

Snapshot – Collaboration

Personal and Social capability: Social management: Collaboration

Content description

AC9TDI6P08

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• perform designated roles within groups, appreciating everyone’s contributions to a shared outcome
• coordinate contributions of group members, suggesting improvements to ways of working and

collaborative outputs
• appreciate diverse perspectives in a range of collaborative contexts, and demonstrate negotiation skills to improve ways of working and outputs

AC9TDI6P09

access multiple using unique and explain the risks of password re-use

•

Elaborations

• using multiple accounts, each with different , to access each website or used for school and home, for example having a different username and password combination for school, gaming and music accounts
• explaining why re-using a password is risky when one of them is found out, for example how a compromised password from one social media account might be able to be used to access their bank or school account if the password is the same and other details are also compromised
Students learn to:

access multiple personal accounts using unique passphrases and explain the risks

(AC9TDI6P09)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Managing and operating

• Protect content

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Managing and operating

• Protect content

Managing and operating

• Protect content

Resources

Work Samples

Explanation: School networks

Snapshot – Protect content

Digital Literacy: Managing and operating: Protect content

Content description

AC9TDI6P09

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• save and access content in shared folders using their individual school account
• protect content when sharing with peers and trusted adults by setting appropriate access controls
• protect content when sharing by selecting appropriate access controls for individuals and shared links for wider groups

Snapshot – Protect content

Digital Literacy: Managing and operating: Protect content

Content description

AC9TDI6P09

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• save and access content in shared folders using their individual school account
• protect content when sharing with peers and trusted adults by setting appropriate access controls
• protect content when sharing by selecting appropriate access controls for individuals and shared links for wider groups

Snapshot – Protect content

Digital Literacy: Managing and operating: Protect content

Content description

AC9TDI6P09

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• save and access content in shared folders using their individual school account
• protect content when sharing with peers and trusted adults by setting appropriate access controls
• protect content when sharing by selecting appropriate access controls for individuals and shared links for wider groups

Resource – Explanation: School networks

By the end of Year 6 students explain how people design products, services and environments to meet the needs of communities, including sustainability. For each of the 3 prescribed technologies contexts students explain how the features of technologies impact on design decisions and they create designed solutions. They process data and show how digital systems represent data, design algorithms involving complex branching and iteration, and implement them as visual programs including variables. They select and justify design ideas and solutions against design criteria. Students share and communicate ideas or content to an audience using technical terms, graphical representation techniques and appropriate digital tools. They develop project plans, including production processes, and select technologies and techniques to safely produce designed or digital solutions. Students securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. They identify their digital footprint and recognise its permanence.

By the end of Year 6 students develop and modify digital solutions, and define problems and evaluate solutions using user stories and design criteria. They process data and show how digital systems represent data. Students design algorithms involving complex branching and iteration and implement them as visual programs including variables. They securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. Students select and use appropriate digital tools effectively to plan, create, locate and share content, and to collaborate, applying agreed conventions and behaviours. They identify their digital footprint and recognise its permanence.

AC9TDI6K01

investigate the main internal components of common digital systems and their function

AC9TDI6K02

examine how digital systems form networks to transmit data

AC9TDI6P09

access multiple personal accounts using unique passphrases and explain the risks of password re-use

AC9TDI6P10

explain the creation and permanence of their and consider when collecting user

•
•

Elaborations

• describing scenarios where , images or both that have been posted online can lead to information being resurfaced at a later date, for example how a comment made on a social media post or video associates a person with both their comment and the content
• explaining why collecting the smallest amount of needed for a purpose is important to protect

someone's , for example how choosing not to collect information about someone's birthdate when it is not necessary ensures that private cannot be stolen in a cyber attack
• understanding the implications of how personal can be used to train generative AI ; for example, sharing personal information increases the likelihood that private information is revealed through AI outputs now and in the future
Students learn to:

explain the creation and permanence of their digital footprint and consider privacy v user data

(AC9TDI6P10)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Practising digital safety and wellbeing

• Manage digital privacy and identity

Responding to ethical issues

• Explore ethical issues
• Making and reflecting on ethical decisions

Understanding ethical concepts and perspectives

• Explore ethical concepts

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Practising digital safety and wellbeing

• Manage digital privacy and identity

Responding to ethical issues

• Explore ethical issues
• Making and reflecting on ethical decisions

Understanding ethical concepts and perspectives

• Explore ethical concepts

Practising digital safety and wellbeing

• Manage digital privacy and identity

Responding to ethical issues

• Explore ethical issues
• Making and reflecting on ethical decisions

Understanding ethical concepts and perspectives

• Explore ethical concepts

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HP6P10

Snapshot – Manage digital privacy and identity

Digital Literacy: Practising digital safety and wellbeing: Manage digital privacy an

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify their digital footprint (personal data stored by online tools)
• recognise their digital identity represents them online and can give a negative impression
• give and seek consent before sharing online with peers and trusted adults
• recognise the permanence of their digital footprint and digital identity, and the associated risks, including to their reputation
• give and seek consent before sharing online in trusted groups
• recognise their digital footprint is valuable, used by online tools for targeting, and that data shared online is no longer under their control

• consider who they trust with their data and review privacy policies before giving consent, and seek consent before sharing online

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use examples to describe how people may have different values and perspectives that they apply to an ethical issue

• describe how ethical perspectives or approaches to ethical issues may vary in different situations

• analyse■the relationships between values, ethical perspectives■and ethical frameworks when responding to ethical issues

Snapshot – Making and reflecting on ethical decisions

Ethical Understanding: Responding to ethical issues: Making and reflecting on et

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• describe decision-making processes with reference to ethical perspective and■values

• consider alternative■ethical responses■to an issue when making and reflecting on ethical decisions

• consider how values and beliefs influence approaches to ethical issues, and■analyse■how these affect■outcomes

Snapshot – Explore ethical concepts

Ethical Understanding: Understanding ethical concepts and perspectives: Explor

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify ethical concepts, such as respect and tolerance, and describe how a situation or context affects actions and behaviour

• identify and describe ethical concepts, such as truth and justice, and explain how perspectives may vary according to the situation or context

• analyse■the similarities and differences between ethical concepts, such as integrity, loyalty and equality, in a range of situations and contexts

Snapshot – Manage digital privacy and identity

Digital Literacy: Practising digital safety and wellbeing: Manage digital privacy an

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify their digital footprint (personal data stored by online tools)

• recognise their digital identity represents them online and can give a negative impression

• give and seek consent before sharing online with peers and trusted adults

• recognise the permanence of their digital footprint and digital identity, and the associated risks, including to their reputation

• give and seek consent before sharing online in trusted groups

• recognise their digital footprint is valuable, used by online tools for targeting, and that data shared online is no longer under their control

• consider who they trust with their data and review privacy policies before giving consent, and seek consent before sharing online

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use examples to describe how people may have different values and perspectives that they apply to an ethical issue

• describe how ethical perspectives or approaches to ethical issues may vary in different situations

• analyse■the relationships between values, ethical perspectives■and ethical frameworks when responding to ethical issues

Snapshot – Making and reflecting on ethical decisions

Ethical Understanding: Responding to ethical issues: Making and reflecting on et

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• describe decision-making processes with reference to ethical perspective and■values

• consider alternative■ethical responses■to an issue when making and reflecting on ethical decisions

• consider how values and beliefs influence approaches to ethical issues, and■analyse■how these affect■outcomes

Snapshot – Explore ethical concepts

Ethical Understanding: Understanding ethical concepts and perspectives: Explor

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify ethical concepts, such as respect and tolerance, and describe how a situation or context affects actions and behaviour

• identify and describe ethical concepts, such as truth and justice, and explain how perspectives may vary according to the situation or context

• analyse■the similarities and differences between ethical concepts, such as integrity, loyalty and equality, in a range of situations and contexts

Snapshot – Manage digital privacy and identity

Digital Literacy: Practising digital safety and wellbeing: Manage digital privacy an

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify their digital footprint (personal data stored by online tools)

• recognise their digital identity represents them online and can give a negative impression

• give and seek consent before sharing online with peers and trusted adults

• recognise the permanence of their digital footprint and digital identity, and the associated risks, including to their reputation

• give and seek consent before sharing online in trusted groups

• recognise their digital footprint is valuable, used by online tools for targeting, and that data shared online is no longer under their control

• consider who they trust with their data and review privacy policies before giving consent, and seek consent before sharing online

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use examples to describe how people may have different values and perspectives that they apply to an ethical issue
• describe how ethical perspectives or approaches to ethical issues may vary in different situations
• analyse■the relationships between values, ethical perspectives■and ethical frameworks when responding to ethical issues

Snapshot – Making and reflecting on ethical decisions

Ethical Understanding: Responding to ethical issues: Making and reflecting on et

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• describe decision-making processes with reference to ethical perspective and■values
• consider alternative■ethical responses■to an issue when making and reflecting on ethical decisions
• consider how values and beliefs influence approaches to ethical issues, and■analyse■how these affect■outcomes

Snapshot – Explore ethical concepts

Ethical Understanding: Understanding ethical concepts and perspectives: Explor

Content description

AC9TDI6P10

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify ethical concepts, such as respect and tolerance, and describe how a situation or context affects actions and behaviour
• identify and describe ethical concepts, such as truth and justice, and explain how perspectives may vary according to the situation or context
• analyse■the similarities and differences between ethical concepts, such as integrity, loyalty and equality, in a range of situations and contexts