

(no-code)

analyse how people in design and technologies occupations consider ethical, security and sustainability factors to innovate and improve , and

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Elaborations

- examining sustainability factors influencing the design and production of a solution developed by First Nations Australians, such as the sustainable production of culturally significant pigments, for example in many places throughout Australia white and red pigments are not freely available and must be manufactured through a complex process of calcination by firing rocks or clays in a kiln
- analysing design and technologies professions and their contributions to society, for example engineers working in disaster recovery or empowering communities to improve access to clean, safe energy
- recognising the impact of past when creating solutions for , for example the design of public transport systems that use renewable energy and are accessible, and the design of rural community to reduce fire risk
- considering the factors that influence design and manufacture, and the work of professional designers, engineers and technologists, including time, access to skills, knowledge, finance, expertise in global engineering and manufacturing, for example Australian designers and engineers working with manufacturers in a country in or the significance of the collaboration between Australia and Vietnam on the development of the Cao Lanh Bridge
- explaining how can influence decision-making related to design and technologies, for example rethinking to provide for re-use, selecting a material for a that has a lower carbon footprint
- examining mass production systems taking into account ethics and sustainability considerations, for example the mass production of food, clothing and shoes and why manufacturers produce different versions of the same and support complete life cycle strategies
- explaining the consequences of ethical and sustainability decisions for , and , for example the accessibility of a managed public , the design of roads to include aerial bridges for wildlife and signage powered with solar technologies

Students learn to:

analyse how people in design and technologies occupations consider ethical, security and sustainability factors to innovate and improve products, services and environments

(AC9TDE10K01)

General capabilities and cross-curriculum priorities

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

Understanding ethical concepts and perspectives

- Recognise influences on ethical behaviour and perspectives

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.

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 .

Inquiring

- Identify, process and evaluate information

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Analysing

- Draw conclusions and provide reasons

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

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.

Understanding Asia's global significance

- The peoples of Asia shape human endeavour through aesthetic, creative, political, sporting, economic, technological and scientific domains.

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

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.

Responding to ethical issues

- Explore ethical issues

Understanding ethical concepts and perspectives

- Recognise influences on ethical behaviour and perspectives

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.

Responding to ethical issues

- Explore ethical issues

Understanding ethical concepts and perspectives

- Examine values, rights and responsibilities and ethical norms
- Recognise influences on ethical behaviour and perspectives

Design

- Creative and innovative design is integral to the identification of new ways of sustainable living.

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Recognise influences on ethical behaviour and perspectives

Ethical Understanding: Understanding ethical concepts and perspectives: Recognise influences on ethical behaviour and perspectives

Content description

AC9TDE10K01

Continuum extract

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

- explain how different traits, such as honesty, trust, courage and selfishness interact with responsibilities or duties to determine ethically appropriate responses
- explore and analyse examples of the tensions between conflicting positions on issues of personal, social and global importance

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K01

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources

- evaluate the information selected to determine bias and reliability

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K01

Continuum extract

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- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K01

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
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- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources

- evaluate the information selected to determine bias and reliability

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDE10K01

Continuum extract

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

- analyse the relationships between values, ethical perspectives and ethical frameworks when responding to ethical issues
- apply knowledge of ethical concepts, values, perspectives and frameworks when responding to ethical issues

Snapshot – Recognise influences on ethical behaviour and perspectives

Ethical Understanding: Understanding ethical concepts and perspectives: Recognise ethical behaviour and perspectives

Content description

AC9TDE10K01

Continuum extract

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

- explain how different traits, such as honesty, trust, courage and selfishness interact with responsibilities or duties to determine ethically appropriate responses
- explore and analyse examples of the tensions between conflicting positions on issues of personal, social and global importance

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDE10K01

Continuum extract

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

- analyse the relationships between values, ethical perspectives and ethical frameworks when responding to ethical issues
- apply knowledge of ethical concepts, values, perspectives and frameworks when responding to ethical issues

Snapshot – Examine values, rights and responsibilities and ethical norms

Ethical Understanding: Understanding ethical concepts and perspectives: Examine responsibilities and ethical norms

Content description

AC9TDE10K01

Continuum extract

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

- describe the relationship between the role of individual and community values, rights and responsibilities, and ethical norms when responding to ethical issues
- describe the importance of values, rights and responsibilities when reaching a position on an ethical issue, and evaluate their role in challenging and defending ethical norms

Snapshot – Recognise influences on ethical behaviour and perspectives

Ethical Understanding: Understanding ethical concepts and perspectives: Recognise ethical behaviour and perspectives

Content description

AC9TDE10K01

Continuum extract

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

- explain how different traits, such as honesty, trust, courage and selfishness interact with

responsibilities or duties to determine ethically appropriate responses

- explore and analyse examples of the tensions between conflicting positions on issues of personal, social and global importance

Resource – WS01 - Design project: To market

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Please use search to find another page or browse from the home page .

AC9TDE10K02

analyse the impact of innovation, enterprise and emerging technologies on for global

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Elaborations

- investigating how the knowledges of First Nations Australians have led to the discovery of potential innovative solutions, for example biodegradable polymers using spinifex grass to reduce landfill and strengthen latex, plastics and concrete
- exploring the ways commercial enterprises respond to the challenges and opportunities of technological change, for example e-commerce, and considering their carbon footprint
- investigating scenarios of how the future may unfold and what opportunities and impacts there may be for society and particular groups in a preferred future, for example by using and techniques
- examining real-world problems and understanding basic needs when considering , for example students collaborating to design solutions to challenges in the region; or artists from a country in South-East creating posters for the world to take action in a pandemic

Students learn to:

**analyse the impact of innovation, enterprise and emerging technologies on designe
global preferred futures**

(AC9TDE10K02)

General capabilities and cross-curriculum priorities

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

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

Design

- Creative and innovative design is integral to the identification of new ways of sustainable living.
- Sustainable design requires an awareness of place, past practices, research and technological developments, and balanced judgements based on projected environmental, social and economic impacts.

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 .

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Analysing

- Interpret concepts and problems

Inquiring

- Identify, process and evaluate information

Analysing

- Interpret concepts and problems

Generating

- Create possibilities

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.

Analysing

- Interpret concepts and problems

Understanding Asia's global significance

- The peoples of Asia shape human endeavour through aesthetic, creative, political, sporting, economic, technological and scientific domains.

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K02

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K02

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K02

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K02

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K02

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K02

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10K02

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K02

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

AC9TDE10K03

analyse and make judgements on how the and of materials are combined with force, motion and energy to control engineered systems

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Elaborations

- investigating the engineering innovations of First Nations Australians, such as spearthrowers and bow and arrow, and how the and of materials are used, such as rigidity, flexibility and hardness
- explaining the way common machines or engineered systems interact and combine of materials, force, motion and energy efficiently, for example examining the structure and function of cranes on building sites or in a system, or examining the structure and function of car safety such as seatbelts, airbags and crumple zones
- calculating forces, reactions and loads in structures and analysing the relationship between materials of , forces and safety in engineered systems such as bridges
- critiquing the effectiveness of the combinations of materials, forces, energy and motion in an engineered system such as a 3D printer
- investigating how the placement of wind turbines in a wind farm affects their performance, for example designing a layout to maximise the productivity of a wind farm within a given space
- investigating the main types of chargers for electric vehicles (EV) and their capabilities, for example making a recommendation for the best charger for an EV owner who uses their vehicle for commuting to work

Students learn to:

analyse and make judgements on how the characteristics and properties of material, force, motion and energy to control engineered systems

(AC9TDE10K03)

General capabilities and cross-curriculum priorities

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

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

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 .

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Inquiring

- Identify, process and evaluate information

Measurement and geometry

- Understanding units of measurement

Number sense and algebra

- Number patterns and algebraic thinking

Analysing

- Draw conclusions and provide reasons

Measurement and geometry

- Positioning and locating

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

Related content

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

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K03

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K03

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Understanding texts

Literacy: Reading and viewing: Understanding texts

Content description

AC9TDE10K03

Learning progression extract

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

Comprehension

- reads and views complex or some highly complex texts (see Text complexity)
- interprets abstract concepts integrating complex ideas
- analyses how language features are used to support the point of view in a text (e.g. the strategic use of images such as a cartoon in an editorial)
- draws inferences using evidence from the text and discounting possible inferences that are not supported by the text
- applies and articulates criteria to evaluate the language structures and features for relevance to purpose and audience
- evaluates the reasoning and evidence in a persuasive text
- explains how context (e.g. time, place, situation) influences interpretations of a text
- analyses the author's perspectives in complex or some highly complex texts
- analyses the techniques authors use to position readers
- recognises when ideas or evidence have been omitted from a text to position the reader

Processes

- automatically integrates a range of processes such as predicting, confirming predictions, monitoring and connecting relevant elements of the text, to build meaning
- describes how sophisticated cohesive devices establish patterns of meaning (e.g. "class" – "subclass")
- navigates extended texts including complex digital texts

Vocabulary

- demonstrates an understanding of nuances and subtleties in words of similar meaning (e.g. "frustrated", "discouraged", "baffled")
- verifies interpretations of unfamiliar words using grammatical and contextual cues

Comprehension

- reads and views highly complex texts (see Text complexity)
- interprets symbolism in texts, providing evidence to justify interpretation

- judiciously selects and synthesises evidence from multiple texts to support ideas and arguments
- analyses the credibility and validity of primary and secondary sources
- evaluates the use of devices such as analogy, irony, rhetoric and satire, and how they contribute to an author's individual style
- analyses the cumulative impact of use of language features and vocabulary across texts
- explains assumptions, beliefs and implicit values in texts (e.g. "economic growth is always desirable")
- evaluates the social, moral and ethical positions taken in texts

Processes

- strategically adjusts the processes of reading and viewing to build meaning according to the demands of tasks and texts
- identifies subtle contradictions and inconsistencies in texts

Vocabulary

- interprets complex, formal and impersonal language in academic texts
- uses lexical cues to interpret unfamiliar vocabulary
- demonstrates self-reliance in exploration and application of word learning strategies

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K03

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Understanding units of measurement

Numeracy: Measurement and geometry: Understanding units of measurement

Content description

AC9TDE10K03

Learning progression extract

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

Using metric units and formulas

- establishes and uses formulas for calculating the area of parallelograms, trapeziums, rhombuses and kites
- establishes and uses formulas for calculating the volume and surface area of a range of right prisms

Circle measurements

- informally estimates the circumference of a circle using the radius or diameter
- establishes the relationship between the circumference and the diameter of a circle as the constant π
- calculates the circumference and the area of a circle using π and a known diameter or radius

Using metric units and formulas

- uses dissection, rearrangement and estimation to calculate or approximate the area and volume of composite shapes and objects
- uses metric units and formulas to calculate the volume and surface area of right prisms, cylinders, cones and pyramids
- uses the conversion between units of volume and capacity to calculate the capacity of objects based on the internal volume and vice versa
- identifies appropriate metric units to use according to the level of precision required (e.g. building plans show measurements in millimetres, but to purchase enough carpet you need to measure

the length and width of the room and round up to the nearest whole metre)

- uses and applies Pythagoras' theorem to authentic contexts (e.g. determines the length of a cross brace given the width of a gate is 1050 1050 1 0 5 0 millimetres and its height is 1450 1450 1 4 5 0 millimetres)
- uses and applies properties of congruent and similar triangles to authentic contexts to determine the size of unknown angles and lengths of sides
- uses trigonometry to calculate the unknown lengths or angles in authentic problems
- chooses an appropriate method to solve problems involving right triangles in authentic contexts

Snapshot – Number patterns and algebraic thinking

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

Content description

AC9TDE10K03

Learning progression extract

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

Algebraic expressions

- creates and identifies algebraic equations from word problems involving one or more operations (e.g. if a taxi charges \$ 5 call out fee then a flat rate of \$ 2.30 per km travelled, represents this algebraically as $C = 5 + 2.3d$ where d is the distance travelled in km and C is the total cost of the trip)
- identifies and justifies equivalent algebraic expressions
- interprets a table of values in order to plot points on a graph

Algebraic relationships

- interprets and uses formulas and algebraic equations that describe relationships in various contexts (e.g. uses $A = \pi r^2$ to calculate the area of a circular space; uses $A = P(1 + \frac{r}{n})^n$ when working with compound interest; uses $v = u + at$ to calculate the velocity of an object)
- plots relationships on a graph using a table of values representing authentic data (e.g. uses data recorded in a spreadsheet to plot results of a science experiment)

Linear and non-linear relationships

- identifies the difference between linear and non-linear relationships in everyday contexts (e.g. explains that in a linear relationship, the rate of change is constant such as the cost of babysitting by the hour, whereas in a non-linear relationship the rate of change will vary and it could grow multiplicatively or exponentially such as a social media post going viral)
- describes and interprets the graphical features of linear and non-linear growth in authentic problems (e.g. compares simple and compound interest graphs; describes the relationship between scientific data plotted on a graph; analyses a graph to identify the inverse relationship between price and quantity demanded or the relationship between Human Development Index (HDI) and standards of living)

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K03

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Positioning and locating

Numeracy: Measurement and geometry: Positioning and locating

Content description

AC9TDE10K03

Learning progression extract

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

Using formal maps and plans

- locates position on maps using grid references (e.g. locates the school in cell E5; uses grid references to identify specific locations on a stage and when creating a stage plan, lighting design or prompt script)
- describes routes using landmarks and directional language including reference to quarter, half, three-quarter turns; turns to the left and right; clockwise and anticlockwise turns (e.g. communicates strategic plays in relation to coaching a team game or sport)
- interprets keys, simple scales and compass directions contained within a map to locate features (e.g. uses a map and compass directions when bush walking or orienteering)

Using proportional thinking for scaling

- interprets the scale used to create plans, drawings or maps (e.g. interprets scale to determine the approximate distance between two locations when orienteering)
- interprets and uses plans and maps involving scale (e.g. creates and interprets scale drawings when designing and making set pieces for a production)
- describes and interprets maps to determine the geographical location and positioning of states and territories within Australia and of countries relative to Australia
- interprets and uses more formal directional language such as compass bearings, degrees of turn, coordinates and distances to locate position or the distance from one location to another (e.g. identifies coordinates using GPS technologies)

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K03

Continuum extract

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Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K03

Continuum extract

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- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
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- evaluate the information selected to determine bias and reliability

AC9TDE10K04

analyse and make judgements on the ethical, secure and sustainable production and marketing of food and enterprises

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Elaborations

- analysing grain sources used by First Nations Australians, such as acacia, for their nutrient content, including energy, fat and protein and suitability as a sustainable food source in drought or famine-prone, semi-arid, and tropical regions, as compared with cereal crops such as wheat

and rice

- examining emerging production technologies and methods in terms of productivity, profitability and sustainability, for example taking account of animal welfare considerations in enterprises, protected cropping, hydroponics or aquaculture
- investigating how could be used to enhance food production systems, for example global positioning systems (GPS) for managing animals, , automated animal-feeding or milking systems, or drones for locating and managing weeds
- investigating the interdependence of plants and animals and comparing the environmental impacts of intensive and extensive production systems and their contribution to , for example the impact of pesticide use on bee populations or comparing caged and free-range chicken production
- considering the meaning of food and water security and how they may influence design decisions for creating , for example using water-efficient irrigation, protected cropping where crops are grown under cover to increase production over a longer period or choosing drought-resistant varieties of plants and animals
- examining the marketing chain of a range of agricultural and outlining the effect of processing and advertising on demand and price including the impact of cash crops on communities

Students learn to:

analyse and make judgements on the ethical, secure and sustainable production and fibre enterprises

(AC9TDE10K04)

General capabilities and cross-curriculum priorities

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

Analysing

- Draw conclusions and provide reasons

Generating

- Create possibilities

Responding to ethical issues

- Explore ethical issues
- Making and reflecting on ethical decisions

Understanding ethical concepts and perspectives

- Recognise influences on ethical behaviour and perspectives

Design

- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.

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 .

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Inquiring

- Identify, process and evaluate information

Responding to ethical issues

- Explore ethical issues
- Making and reflecting on ethical decisions

Understanding ethical concepts and perspectives

- Recognise influences on ethical behaviour and perspectives

Analysing

- Interpret concepts and problems

Inquiring

- Identify, process and evaluate information

Managing and operating

- Select and operate tools

Analysing

- Interpret concepts and problems

Inquiring

- Identify, process and evaluate information

Systems

- Social, economic and political systems influence the sustainability of Earth's systems.

Analysing

- Interpret concepts and problems

Inquiring

- Identify, process and evaluate information

Design

- Creative and innovative design is integral to the identification of new ways of sustainable living.

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.

Analysing

- Interpret concepts and problems

Inquiring

- Identify, process and evaluate information

Systems

- Social, economic and political systems influence the sustainability of Earth's systems.

Related content

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

AC9HG9K01

AC9HG9K02

AC9HG9K03

AC9HG9K04

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K04

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10K04

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDE10K04

Continuum extract

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

- analyse the relationships between values, ethical perspectives and ethical frameworks when responding to ethical issues
- apply knowledge of ethical concepts, values, perspectives and frameworks when responding to ethical issues

Snapshot – Making and reflecting on ethical decisions

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

Content description

AC9TDE10K04

Continuum extract

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

- consider how values and beliefs influence approaches to ethical issues, and analyse how these affect outcomes
- analyse biases when applying ethical concepts, values and ethical frameworks, in order to explore and evaluate ethical decisions

Snapshot – Recognise influences on ethical behaviour and perspectives

Ethical Understanding: Understanding ethical concepts and perspectives: Recognise influences on ethical behaviour and perspectives

Content description

AC9TDE10K04

Continuum extract

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

- explain how different traits, such as honesty, trust, courage and selfishness interact with responsibilities or duties to determine ethically appropriate responses
- explore and analyse examples of the tensions between conflicting positions on issues of personal, social and global importance

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K04

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Explore ethical issues

Ethical Understanding: Responding to ethical issues: Explore ethical issues

Content description

AC9TDE10K04

Continuum extract

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

- analyse the relationships between values, ethical perspectives and ethical frameworks when responding to ethical issues
- apply knowledge of ethical concepts, values, perspectives and frameworks when responding to ethical issues

Snapshot – Making and reflecting on ethical decisions

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

Content description

AC9TDE10K04

Continuum extract

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

- consider how values and beliefs influence approaches to ethical issues, and analyse how these affect outcomes
- analyse biases when applying ethical concepts, values and ethical frameworks, in order to explore and evaluate ethical decisions

Snapshot – Recognise influences on ethical behaviour and perspectives

Ethical Understanding: Understanding ethical concepts and perspectives: Recognise influences on ethical behaviour and perspectives

Content description

AC9TDE10K04

Continuum extract

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

- explain how different traits, such as honesty, trust, courage and selfishness interact with responsibilities or duties to determine ethically appropriate responses
- explore and analyse examples of the tensions between conflicting positions on issues of personal, social and global importance

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K04

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K04

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDE10K04

Continuum extract

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

- select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
- troubleshoot common problems and automate repetitive tasks
- select and operate advanced and emerging digital tools confidently

- troubleshoot common problems systematically and seek to improve efficiency by developing new skills

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K04

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K04

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K04

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K04

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K04

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K04

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

AC9TDE10K05

analyse and make judgements on how the sensory and functional of food influence the design and preparation of sustainable food solutions for healthy eating

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Elaborations

- analysing how First Nations Australians have long understood techniques to turn plant into food sources with high nutritional value, for example throughout much of northern Australia, cycad nuts have been detoxified to prepare them for safe consumption
- experimenting with food preservation methods such as freezing and dehydrating to determine changes to food structure and how these impact on designing healthy food solutions, for example dehydrating fruit for a lunchbox
- conducting sensory and nutritional assessment testing of a range of foods to determine how these might be used to enhance food solutions, for example taste-testing a variety of milks, comparing freshly squeezed juice with commercial juices or locally grown fruit with imported fruit
- determining how the causes of food spoilage can be addressed when preparing, cooking, presenting and storing food items, for example developing a comprehensive checklist of considerations for safe and hygienic food storage and preparation including danger-zone temperatures for a food service
- reflecting on food trends and how they may influence choosing food or designing food solutions for healthy eating, for example choosing organic ingredients or plant-based foods to reduce environmental impact, food delivery systems, insect protein or non-dairy milk or virtual cooking classes
- investigating ways innovations may influence human health and sustainability, for example 3D printing of foods, Internet of Things (IoT) network in the food supply chain or use of augmented reality (AR) in food labelling
- considering factors that influence the preparation and presentation of foods using a range of techniques to ensure optimum nutrient content, flavour, texture and visual appeal, for example designing and producing a healthy snack for the canteen and using food photography and to promote the item in a healthy eating campaign

Students learn to:

analyse and make judgements on how the sensory and functional properties of food influence the design and preparation of sustainable food solutions for healthy eating

(AC9TDE10K05)

General capabilities and cross-curriculum priorities

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

Analysing

- Draw conclusions and provide reasons

Generating

- Put ideas into action

Inquiring

- Identify, process and evaluate information

Design

- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.

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 .

Inquiring

- Identify, process and evaluate information

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Analysing

- Draw conclusions and provide reasons

Generating

- Put ideas into action

Analysing

- Draw conclusions and provide reasons

Generating

- Put ideas into action

Analysing

- Draw conclusions and provide reasons
- Evaluate actions and outcomes

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

Inquiring

- Identify, process and evaluate information

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.

Creating and exchanging

- Create, communicate and collaborate

Related content

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

AC9HP10P09

AC9HP10P10

Snapshot – Draw conclusions and provide reasons**Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons****Content description**

AC9TDE10K05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Put ideas into action**Critical and Creative Thinking: Generating: Put ideas into action**

Content description

AC9TDE10K05

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K05

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K05

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10K05

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10K05

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10K05

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K05

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K05

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10K05

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

AC9TDE10K06

analyse and make judgements on how and of materials, systems, components, tools and equipment can be combined to create

-
-

Elaborations

- analysing how First Nations Australians identified the superior thermal of possum fur in their development of such as cloaks and blankets including making judgements on how these are sourced, and how these knowledges continue to be used today as seen in the emerging market of high-performance thermal clothing made from blended possum and wool
- critiquing the design of an existing to identify environmental consequences of material selection and investigating emerging materials and their impact on design decisions, for example examining the of common plastic bags and researching innovative materials that could be used as a sustainable alternative such as bioplastics or renewable materials such as seaweed
- justifying decisions when selecting from a broad range of technologies – tools, equipment, processes, materials, systems and components, for example selecting low-emission paints and locally sourced materials such as bamboo for cross-laminated timbers (CLT)
- analysing and explaining the ways in which the and of materials have been considered in the design of a with specific requirements, such as minimising weight to reduce transport costs in rural Australia
- investigating emerging materials and their impact on design decisions, for example researching such as sustainable bioplastic material made from discarded potato peels which can be used for a

variety of applications including buttons and eyeglasses

- investigating fibre-based medical textile and structures used in a medical for treatment of an injury or the clinical treatment of a wound or an illness, for example collagen used as a suture is as strong as silk and biodegradable
- investigating soft robotics including nanomaterials which enable them to function like human muscles

Students learn to:

**analyse and make judgements on how characteristics and properties of materials, s
tools and equipment can be combined to create designed solutions**

(AC9TDE10K06)

General capabilities and cross-curriculum priorities

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

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

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 .

People

- The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

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.

Analysing

- Draw conclusions and provide reasons

Analysing

- Draw conclusions and provide reasons

Inquiring

- Identify, process and evaluate information

Inquiring

- Identify, process and evaluate information

Inquiring

- Identify, process and evaluate information

Managing and operating

- Select and operate tools

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10K06

Continuum extract

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

- 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

- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K06

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Understanding texts

Literacy: Reading and viewing: Understanding texts

Content description

AC9TDE10K06

Learning progression extract

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

Comprehension

- reads and views complex or some highly complex texts (see Text complexity)
- interprets abstract concepts integrating complex ideas
- analyses how language features are used to support the point of view in a text (e.g. the strategic use of images such as a cartoon in an editorial)
- draws inferences using evidence from the text and discounting possible inferences that are not supported by the text
- applies and articulates criteria to evaluate the language structures and features for relevance to purpose and audience
- evaluates the reasoning and evidence in a persuasive text
- explains how context (e.g. time, place, situation) influences interpretations of a text
- analyses the author's perspectives in complex or some highly complex texts
- analyses the techniques authors use to position readers
- recognises when ideas or evidence have been omitted from a text to position the reader

Processes

- automatically integrates a range of processes such as predicting, confirming predictions, monitoring and connecting relevant elements of the text, to build meaning
- describes how sophisticated cohesive devices establish patterns of meaning (e.g. "class" – "subclass")
- navigates extended texts including complex digital texts

Vocabulary

- demonstrates an understanding of nuances and subtleties in words of similar meaning (e.g. "frustrated", "discouraged", "baffled")
- verifies interpretations of unfamiliar words using grammatical and contextual cues

Comprehension

- reads and views highly complex texts (see Text complexity)
- interprets symbolism in texts, providing evidence to justify interpretation
- judiciously selects and synthesises evidence from multiple texts to support ideas and arguments
- analyses the credibility and validity of primary and secondary sources
- evaluates the use of devices such as analogy, irony, rhetoric and satire, and how they contribute to an author's individual style
- analyses the cumulative impact of use of language features and vocabulary across texts
- explains assumptions, beliefs and implicit values in texts (e.g. "economic growth is always desirable")
- evaluates the social, moral and ethical positions taken in texts

Processes

- strategically adjusts the processes of reading and viewing to build meaning according to the demands of tasks and texts
- identifies subtle contradictions and inconsistencies in texts

Vocabulary

- interprets complex, formal and impersonal language in academic texts
- uses lexical cues to interpret unfamiliar vocabulary
- demonstrates self-reliance in exploration and application of word learning strategies

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K06

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K06

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K06

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10K06

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K06

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K06

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10K06

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Select and operate tools

Digital Literacy: Managing and operating: Select and operate tools

Content description

AC9TDE10K06

Continuum extract

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

- select and use the advanced or unfamiliar features of digital tools to efficiently complete tasks
- troubleshoot common problems and automate repetitive tasks
- select and operate advanced and emerging digital tools confidently
- troubleshoot common problems systematically and seek to improve efficiency by developing new skills

AC9TDE10P01

analyse needs or opportunities for designing; develop ; and investigate, analyse and select materials, systems, components, tools and equipment to create

-
-

Elaborations

- analysing First Nations Australians' traditional grains for their potential for providing nutritional and commercial solutions and developing a to highlight the materials, systems,

components and tools or equipment needed

- analysing the design of new to identify how well design ideas respond to sustainability issues, for example swimming pool covers, ultraviolet lights and lamps for disinfection, or disposable household
- developing that take into consideration the needs of users, for example considering universal design principles or Safety by Design principles to improve accessibility and safety
- analysing a range of design and technologies ideas, for example assessing those that draw on the intellectual property of others, including Indigenous cultural and intellectual property rights
- considering the needs of community groups to identify rich design tasks, for example interviewing community members about accessibility requirements to develop the initial brief and then during specific phases of the to determine the best possible designed solution for the community
- examining tools, techniques, equipment and relationships of for complementary materials for development, for example examining compressive and tensile strengths of materials

Students learn to:

analyse needs or opportunities for designing; develop design briefs; and investigate select materials, systems, components, tools and equipment to create designed solutions

(AC9TDE10P01)

General capabilities and cross-curriculum priorities

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

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Generating

- Consider alternatives
- Put ideas into action

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

- Interpret concepts and problems
- Draw conclusions and provide reasons

Generating

- Consider alternatives
- Put ideas into action

People

- First Nations Australians have sophisticated political, economic and social organisation systems, which include family and kinship structures, laws, traditions, customs, land tenure systems, and protocols for strong governance and authority.

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Design

- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Generating

- Consider alternatives

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Creating and exchanging

- Respect intellectual property

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Generating

- Put ideas into action

Inquiring

- Develop questions

Analysing

- Interpret concepts and problems
- Draw conclusions and provide reasons

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P01

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P01

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering

approaches in complex or unfamiliar situations

- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Understanding texts

Literacy: Reading and viewing: Understanding texts

Content description

AC9TDE10P01

Learning progression extract

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

Comprehension

- reads and views complex or some highly complex texts (see Text complexity)
- interprets abstract concepts integrating complex ideas
- analyses how language features are used to support the point of view in a text (e.g. the strategic use of images such as a cartoon in an editorial)
- draws inferences using evidence from the text and discounting possible inferences that are not supported by the text
- applies and articulates criteria to evaluate the language structures and features for relevance to purpose and audience
- evaluates the reasoning and evidence in a persuasive text
- explains how context (e.g. time, place, situation) influences interpretations of a text
- analyses the author's perspectives in complex or some highly complex texts
- analyses the techniques authors use to position readers
- recognises when ideas or evidence have been omitted from a text to position the reader

Processes

- automatically integrates a range of processes such as predicting, confirming predictions, monitoring and connecting relevant elements of the text, to build meaning
- describes how sophisticated cohesive devices establish patterns of meaning (e.g. "class" – "subclass")
- navigates extended texts including complex digital texts

Vocabulary

- demonstrates an understanding of nuances and subtleties in words of similar meaning (e.g. "frustrated", "discouraged", "baffled")
- verifies interpretations of unfamiliar words using grammatical and contextual cues

Comprehension

- reads and views highly complex texts (see Text complexity)
- interprets symbolism in texts, providing evidence to justify interpretation
- judiciously selects and synthesises evidence from multiple texts to support ideas and arguments
- analyses the credibility and validity of primary and secondary sources
- evaluates the use of devices such as analogy, irony, rhetoric and satire, and how they contribute to an author's individual style
- analyses the cumulative impact of use of language features and vocabulary across texts
- explains assumptions, beliefs and implicit values in texts (e.g. "economic growth is always desirable")
- evaluates the social, moral and ethical positions taken in texts

Processes

- strategically adjusts the processes of reading and viewing to build meaning according to the demands of tasks and texts
- identifies subtle contradictions and inconsistencies in texts

Vocabulary

- interprets complex, formal and impersonal language in academic texts
- uses lexical cues to interpret unfamiliar vocabulary
- demonstrates self-reliance in exploration and application of word learning strategies

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P01

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P01

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P01

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Respect intellectual property

Digital Literacy: Creating and exchanging: Respect intellectual property

Content description

AC9TDE10P01

Continuum extract

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

- respect intellectual property by applying practices that comply with ethical and legal obligations, referencing conventions and copyright protocols
- respect intellectual property by identifying and applying practices that meet legal and ethical obligations, referencing conventions, copyright and trademark protocols

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P01

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Develop questions

Critical and Creative Thinking: Inquiring: Develop questions

Content description

AC9TDE10P01

Continuum extract

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

- develop questions to investigate complex issues and topics
- questions developed assist in forming an understanding of why phenomena or issues arise

- develop questions to investigate complex issues and topics
- questions developed facilitate increasing understanding of abstract ideas and concepts

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P01

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P01

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Resource – WS01 - Design project: To market

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AC9TDE10P02

apply innovation and to generate, test, iterate and communicate design ideas, processes and solutions, including using

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Elaborations

- using techniques including combining and modifying ideas and exploring to generate solution concepts and reimagining designs to feature emerging technologies, for example designing wearable technology that could help or give independence to elderly people, such as wearable blood glucose monitors
- undertaking functional, structural and aesthetic analysis of benefits and constraints of design ideas, for example assessing how a design is suitable for different communities and including a country in , for example the design of skyscrapers in Japan to withstand earthquakes
- considering competing variables that may hinder or enhance project development, for example weight, strength and price of materials; laws; sustainability; accessibility; social protocols, user needs and community consultation processes
- producing drawings, and prototypes to explore design ideas, for example using technical drawing techniques (for example perspective and), digital imaging programs, 3D printers or augmented reality (AR) software; producing multiple prototypes that show an understanding of key aesthetic considerations in competing designs
- communicating using appropriate technical terms and recording the generation and development of

design ideas and processes for an intended audience including justification of decisions, for example developing a digital portfolio with images and text which clearly communicate each step of a

- using and to create innovative approaches to processes and solutions, for example brainstorming novel ideas inspired by nature or transforming a solution into an enterprise for a target market

Students learn to:

apply innovation and enterprise skills to generate, test, iterate and communicate design ideas and processes and solutions, including using digital tools

(AC9TDE10P02)

General capabilities and cross-curriculum priorities

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

Generating

- Create possibilities

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 .

Generating

- Create possibilities

Engaging with cultural and linguistic diversity

- Develop empathy

Knowing Asia and its diversity

- The interrelationships between people and the diverse environments and systems across the Asia region have global implications.

Analysing

- Interpret concepts and problems

Generating

- Consider alternatives

Generating

- Create possibilities
- Put ideas into action

Creating and exchanging

- Create, communicate and collaborate

Creating and exchanging

- Create, communicate and collaborate

Generating

- Create possibilities

Related content

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

AC9M9M01

AC9M9M03

AC9M9SP02

AC9M10M04

AC9M10SP03

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P02

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10P02

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P02

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Develop empathy

Intercultural Understanding: Engaging with cultural and linguistic diversity: Develop empathy

Content description

AC9TDE10P02

Continuum extract

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

- use perspective-taking, mutual understanding and respect to sustain interactions in diverse intercultural experiences
- analyse diverse experiences of intercultural contexts, understanding how these contexts influence their own and others' feelings, motivations and actions

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9TDE10P02

Continuum extract

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

- 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
- identify the objective and subjective aspects of a complex concept or problem, with sensitivity to context

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P02

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P02

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P02

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10P02

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10P02

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P02

Continuum extract

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

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

- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

AC9TDE10P03

select, justify, test and use suitable technologies, skills and processes, and apply safety procedures to safely make

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Elaborations

- refining technical skills and using production skills with independence to produce quality and reducing risks in production with appropriate, safe working practices required for a specific design project, for example independently setting up a lathe and wearing appropriate () to produce a part to specified dimensions
- using materials, components, tools, equipment and techniques safely and considering alternatives to maximise sustainability, for example using timber because it stores carbon and offsets the demand for alternative
- experimenting with innovative combinations and ways of manipulating traditional and contemporary materials, components, tools, equipment and techniques, and recording findings in a collaborative space to debate the merits of each with peers
- modifying to respond to opportunities, risks or unforeseen challenges, for example when producing bulk quantities of recipes in terms of workload and coordination, the impact of lower-than-average rainfalls on crop growth or using materials with unexpected faults
- experimenting with the functional and of food to determine the most successful approach, for example preparing vegetables 3 different ways to maximise colour, flavour and nutritive value

Students learn to:

select, justify, test and use suitable technologies, skills and processes, and apply safety procedures to safely make designed solutions

(AC9TDE10P03)

General capabilities and cross-curriculum priorities

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

Analysing

- Draw conclusions and provide reasons

Generating

- Consider alternatives
- Put ideas into action

Self-management

- Perseverance and adaptability

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 .

Self-management

- Goal setting

Generating

- Consider alternatives

Design

- Creative and innovative design is integral to the identification of new ways of sustainable living.

Generating

- Create possibilities

Creating and exchanging

- Create, communicate and collaborate

Generating

- Consider alternatives
- Put ideas into action

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P03

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P03

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P03

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Snapshot – Perseverance and adaptability

Personal and Social capability: Self-management: Perseverance and adaptability

Content description

AC9TDE10P03

Continuum extract

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

- select, apply and refine strategies to persevere when faced with unexpected or challenging contexts
- devise, evaluate and adapt strategies to engage with unexpected or challenging situations

Snapshot – Goal setting

Personal and Social capability: Self-management: Goal setting

Content description

AC9TDE10P03

Continuum extract

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

- use and refine strategies that contribute to regulating behaviour and achieving learning goals
- adapt goals and plans, and apply strategies, evaluating their suitability and effectiveness

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P03

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P03

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10P03

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P03

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9TDE10P03

Continuum extract

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

- put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations
- put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

AC9TDE10P04

develop independently including sustainability to evaluate design ideas, processes and solutions

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Elaborations

- establishing specific for evaluating , for example determining necessary function of a , service or such as an acceptable load for an engineered structure to carry and making a judgement about whether these have been met after stress testing or user testing
- evaluating and justifying the use and best combination of traditional, contemporary and emerging technologies during project development, including consideration of sustainability, for example considering farming methods that improve soil quality including those methods used in South-East
- reflecting on learning including processes or choices made at various stages of a and modifying plans when needed with consideration of
- responding creatively to evaluation feedback to iterate and modify design ideas and processes to improve sustainability measures, for example considering opportunities to use sustainable materials, such as plant-based timber oils or bioplastics

Students learn to:

develop design criteria independently including sustainability to evaluate design id and solutions

(AC9TDE10P04)

General capabilities and cross-curriculum priorities

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

Analysing

- Draw conclusions and provide reasons
- Evaluate actions and outcomes

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.

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

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.

Analysing

- Evaluate actions and outcomes

Reflecting

- Think about thinking (metacognition)
- Transfer knowledge

Analysing

- Draw conclusions and provide reasons

Generating

- Consider alternatives

Reflecting

- Transfer knowledge

Design

- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.

Resources

Work Samples

WS01 - Design project: To market

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P04

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10P04

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P04

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10P04

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P04

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

arguments before making recommendations

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10P04

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10P04

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Think about thinking (metacognition)

Critical and Creative Thinking: Reflecting: Think about thinking (metacognition)

Content description

AC9TDE10P04

Continuum extract

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

- reflect on the thinking and processes used when completing activities or drawing conclusions
- invite alternative perspectives and feedback, and consider reasonable criticism to adjust thinking and approaches
- reflect on the thinking and processes used when completing activities and drawing conclusions
- identify possible limitations in their own positions by considering opposing viewpoints, reasonable criticism and feedback

Snapshot – Transfer knowledge

Critical and Creative Thinking: Reflecting: Transfer knowledge

Content description

AC9TDE10P04

Continuum extract

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

- transfer knowledge and skills gained in previous experiences to both similar and different contexts, and explain reasons for decisions and choices made
- identify, plan and justify opportunities to transfer knowledge into new contexts

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P04

Continuum extract

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

- 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

- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9TDE10P04

Continuum extract

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

- consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option
- consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Snapshot – Transfer knowledge

Critical and Creative Thinking: Reflecting: Transfer knowledge

Content description

AC9TDE10P04

Continuum extract

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

- transfer knowledge and skills gained in previous experiences to both similar and different contexts, and explain reasons for decisions and choices made
- identify, plan and justify opportunities to transfer knowledge into new contexts

AC9TDE10P05

develop project plans for intended purposes and audiences to individually and collaboratively manage projects, taking into consideration time, cost, risk, processes and production of

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Elaborations

- producing, explaining and interpreting drawings and planning production timelines using , for example establishing materials and equipment needs using spreadsheets, or creating production flowcharts to ensure efficient, safe and sustainable workflows
- collaborating to develop production plans for equitable distribution of work including discussing roles, tasks and deadlines and considering flexibility and contingencies
- investigating manufacturing processes to identify strategies to enhance production, for example identifying techniques to reduce use, cut costs, speed up processes or to form beneficial partnerships with others in production

Students learn to:

develop project plans for intended purposes and audiences to individually and collaboratively manage projects, taking into consideration time, cost, risk, processes and production of des

(AC9TDE10P05)

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

Social management

- Collaboration
- Decision-making

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

Design

- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.

Analysing

- Draw conclusions and provide reasons

Social management

- Collaboration
- Decision-making

Inquiring

- Identify, process and evaluate information

Statistics and probability

- Interpreting and representing data

Snapshot – Evaluate actions and outcomes

Critical and Creative Thinking: Analysing: Evaluate actions and outcomes

Content description

AC9TDE10P05

Continuum extract

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

- 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
- evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9TDE10P05

Continuum extract

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

- create possibilities by adapting, combining or elaborating on new and known ideas, and proposing a range of different or creative combinations
- create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Snapshot – Collaboration

Personal and Social capability: Social management: Collaboration

Content description

AC9TDE10P05

Continuum extract

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

- appreciate diverse perspectives in a range of collaborative contexts, and demonstrate negotiation skills to improve ways of working and outputs
- devise strategies for collaborative work and outputs in a range of contexts, building on the perspectives, experiences and capabilities of group members

Snapshot – Decision-making

Personal and Social capability: Social management: Decision-making

Content description

AC9TDE10P05

Continuum extract

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

- devise and analyse individual and group decision-making processes
- develop and apply criteria to evaluate the outcomes of individual and group decisions

Snapshot – Create, communicate and collaborate

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

Content description

AC9TDE10P05

Continuum extract

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

- select and control advanced features of appropriate digital tools to independently create content and effectively communicate and collaborate with wider groups
- select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Snapshot – Draw conclusions and provide reasons

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

Content description

AC9TDE10P05

Continuum extract

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

- 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
- draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Snapshot – Collaboration

Personal and Social capability: Social management: Collaboration

Content description

AC9TDE10P05

Continuum extract

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

- appreciate diverse perspectives in a range of collaborative contexts, and demonstrate negotiation skills to improve ways of working and outputs
- devise strategies for collaborative work and outputs in a range of contexts, building on the perspectives, experiences and capabilities of group members

Snapshot – Decision-making

Personal and Social capability: Social management: Decision-making

Content description

AC9TDE10P05

Continuum extract

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

- devise and analyse individual and group decision-making processes
- develop and apply criteria to evaluate the outcomes of individual and group decisions

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate information

Content description

AC9TDE10P05

Continuum extract

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

- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the accuracy, validity and relevance of the information and opinion to the topic of study
- identify and clarify significant information and opinion from a range of sources, including visual information and digital sources
- evaluate the information selected to determine bias and reliability

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9TDE10P05

Learning progression extract

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

Sampling

- considers the context when determining whether to use data from a sample or a population
- determines what type of sample to use from a population (e.g. decides to use a representative sample when conducting targeted market research or when researching beliefs about a health-related issue)
- makes reasonable statements about a population based on evidence from samples (e.g. considers accuracy of representation of marginalised individuals or population groups)
- plans, executes and reports on sampling-based investigations, taking into account validity of methodology and consistency of data, to answer questions formulated by the student

Recognising bias

- applies an understanding of distributions to evaluate claims based on data (e.g. recognises that the accuracy of using a sample for predicting population values depends on both the relative size of the sample and how well the characteristics of the sample reflect the characteristics of the population; critically analyses statistics that reinforce stereotypes; evaluates claims made by the media regarding young people in relation to drugs and/or risk-taking behaviours)
- identifies and explains bias as a possible source of error in media reports of survey data (e.g. uses data to evaluate veracity of review headlines such as "everybody's favourite game"; investigates media claims on attitudes to government responses to market failure or income redistribution)
- justifies criticisms of data sources that include biased statistical elements (e.g. inappropriate sampling from populations; identifying sources of uncertainty in a scientific investigation; checks the authenticity of a data set)