Year 5

Biological Science

What is the best beak shape?

Adaptations

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES
- Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use (ACTDEK023)
- Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)

MATHEMATICS
- Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)
- Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114)
- Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)
- Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)
- Describe and interpret different data sets in context (ACMSP120)

CROSS-CURRICULUM PRIORITY - Aboriginal and Torres Strait Islander Histories and Cultures
- Investigating Aboriginal and Torres Strait Islander peoples’ knowledge of the adaptations of certain species and how those adaptations can be exploited
Year 5

Chemical Sciences / Engineering

DIY – how can we innovate?

Solids, Liquids and Gases – Materials

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Solids, liquids and gases have different observable properties and behave in different ways (ACSSU077)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use (ACTDEK023)

MATHEMATICS

- Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115)
- Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114)
- Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)
- Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)
- Construct displays, including column graphs, dot plots, and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)
- Describe and interpret different datasets in context (ACMSP120)
Year 5

Physical Sciences / Technology / Engineering

How do scientists use light to help solve problems?

Light

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Light from a source forms shadows and can be absorbed, reflected and refracted (ACSSU080)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)
- Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions (ACTDEP026)
- Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)
- Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

MATHEMATICS

- Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101)
- Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291)
- Find unknown quantities in number sentences involving multiplication and division and identify equivalent number sentences involving multiplication and division (ACMNA121)
- Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)
- Compare 12- and 24- hour time systems and convert between them (ACMMG110)
- Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)
Year 5

Earth & Space Sciences / Biological Sciences

Why is Earth the best planet in our solar system to sustain life?

*Planet Earth*

**ACARA content descriptors**

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- The Earth is part of a system of planets orbiting around a star (the sun) (ACSSU078)

*This task is also an opportunity for students to learn and demonstrate aspects of:*

**TECHNOLOGIES**

- Investigate how and why food and fibre and produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)
- Acquire, store, and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)

**MATHEMATICS**

- Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098)
- Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100)
- Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101)
- Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)
- Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)
- Describe and interpret different data sets in context (ACMSP120)
Agriculture / Biological Sciences

How can agriculture be balanced with conservation of biodiversity?

Conservation (Year 5 & 6 composite class option)

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Living things have structural features and adaptations that help them to survive in their environment (ACSU043—Year 5)
- The growth and survival of living things are affected by physical conditions of their environment (ACSU094—Year 6)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES
- Examine how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services, and environments for current and future use (ACTDEK019)
- Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)
- Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

MATHEMATICS
- Pose questions and collect categorical or numerical data by observation or survey (ACMSP118—Year 5)
- Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119—Year 5)
- Describe and interpret different data sets in context (ACMSP120—Year 5)
- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147—Year 6)
- Interpret secondary data presented in digital media and elsewhere (ACMSP148—Year 6)

CROSS-CURRICULUM PRIORITY - Aboriginal and Torres Strait Islander Histories and Cultures
- O.13: sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems
- Investigating Aboriginal and Torres Strait Islander peoples’ knowledge of the adaptations of certain species and how those adaptations can be exploited
Earth & Space Sciences / Design Technologies

How do seismologists measure earthquakes?

Earthquakes

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Sudden geological changes or extreme weather conditions can affect Earth’s surface (ACSSU096)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)
- Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions (ACTDEP026)
- Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)
- Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

MATHEMATICS

- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)
- Interpret secondary data presented in digital media and elsewhere (ACMSP148)
**Chemical Sciences**

**How will you know if your snack is fit for an extreme environment?**

*Extreme Snack*

**ACARA content descriptors**

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following **SCIENCE** descriptor(s):

- Sudden geological changes or extreme weather conditions can affect Earth’s surface (ACSSU096)

*This task is also an opportunity for students to learn and demonstrate aspects of:*

**TECHNOLOGIES**

- Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)
- Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions (ACTDEP026)
- Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)
- Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

**MATHEMATICS**

- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)
- Interpret secondary data presented in digital media and elsewhere (ACMSP148)
How can we live more sustainably?

**Living Sustainably**

**ACARA content descriptors**

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following **SCIENCE** descriptor(s):

- The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)
- Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources (ACSSU097)

*This task is also an opportunity for students to learn and demonstrate aspects of:*

**TECHNOLOGIES**

- Examine how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services, and environments for current and future use (ACTDEK019)
- Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)
- Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use (ACTDEK023)

**MATHEMATICS**

- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)
- Interpret secondary data presented in digital media and elsewhere (ACMSP148)
- Make connections between equivalent fractions, decimals, and percentages (ACMNA131)

**CROSS-CURRICULUM PRIORITY - Aboriginal and Torres Strait Islander Histories and Cultures**

- O.13: sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems
Biological Sciences / Mathematics

What is the best seed shape?

Seed Shape

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)

*This task is also an opportunity for students to learn and demonstrate aspects of:*

TECHNOLOGIES

- Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use (ACTDEK023)

MATHEMATICS

- Convert between common metric units of length, mass and capacity (ACMMG136)
- Connect volume and capacity and their units of measurements (ACMMG138)
- Compare observed frequencies across experiments with expected frequencies (ACMSP146)
- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)
- Interpret secondary data represented in digital media and elsewhere (ACMSP148)
Year 7

Biological Sciences

When is a bug not a bug?

Taxonomy/Classification

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Classification helps organise the diverse group of organisms (ACSSU111)
- Interactions between organisms, including the effects of human activities can be represented by food chains and food webs (ACSSU112)
- Scientific knowledge has changed peoples’ understanding of the world and is refined as new evidence becomes available (ACSHE119)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Design a user interface for a digital system (ACTDIP018)
- Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)
- Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)

MATHEMATICS

- Connect fractions, decimals and percentages and carry out simple conversion (ACMNA157)
- Recognise and solve problems involving simple ratios (ACMNA173)
How can energy efficiency be improved in your local community?

Energy Efficiency

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Some of Earth's resources are renewable, including water that cycles through the environment, but others are non-renewable (ACSSU116)
- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE120)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions (ACTDEK031)
- Select and justify choices of materials, components, tools, equipment and techniques to effectively and safely make designed solutions (ACTDEP037)
- Independently develop criteria for success to evaluate design ideas, processes and solutions and their sustainability (ACTDEP038)

MATHEMATICS

- Identify and investigate issues involving numerical data collected from primary and secondary sources (ACMSP169)
- Construct and compare a range of data displays including stem-and-leaf plots and dot plots (ACMSP170)
- Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data (ACMSP171)
- Describe and interpret data displays using median, mean and range (ACMSP172)
- Introduce the concept of variables as a way of representing numbers using letters (ACMNA175)
- Create algebraic expressions and evaluate them by substituting a given value for each variable (ACMNA176)
Physical Sciences / Mathematics

Which launch angle gives the longest horizontal distance?

Launch Angle (Rockets)

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Change to an object’s motion is caused by unbalanced forces acting on the object (ACSSU117)
- Earth’s gravity pulls objects towards the centre of the Earth (ACSSU118)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment (ACTDEK034)
- Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025)

MATHEMATICS

- Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data (ACMSP171)
- Describe and interpret data displays using median, mean and range (ACMSP172)
Year 7

Chemical Sciences

Magical mixtures – how are separation methods used in industry and how could we improve them?

Magical Mixtures

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)
- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE120)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Analyse how food and fibre are produced when designing managed environments and how these can become more sustainable (ACTDEK032)
- Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment (ACTDEK034)
- Analyse how characteristics and properties of food determine preparation techniques and presentation when designing solutions for healthy eating (ACTDEK033)

MATHEMATICS

- Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies (ACMNA158)
Year 8

Biological Sciences

Breathing under water – how will single-celled organisms survive in warmer oceans?

Cells

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Cells are the basic units of living things; they have specialised structures and functions (ACSSU149)
- Multicellular organisms contain systems of organs carrying out specialised functions that enable them to survive and reproduce (ACSSU150)
- Properties of the different states of matter can be explained in terms of the motion and arrangement of particles (ACSSU151)
- Differences between elements, compounds and mixtures can be described at a particle level (ACSSU152)
- Chemical change involves substances reacting to form new substances (ACSSE225)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate the ways in which products, services and environments evolve locally, regionally and globally and how competing factors including social, ethical and sustainability considerations are prioritised in the development of technologies and designed solutions for preferred futures (ACTDEK029)

MATHEMATICS

- Solve problems involving the use of percentages, including percentage increases and decreases, with and without digital technologies (ACMNA187)
Physical Sciences

How does energy change form?

Energy Change

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Energy appears in different forms including movement (kinetic energy), heat and potential energy, and causes change within systems (ACSSU155)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions (ACTDEK031)
- Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment (ACTDEK034)

MATHEMATICS

- Use index notation with numbers to establish the index laws with positive integral indices and the zero index (ACMNA182)
Year 8

Earth & Space Sciences / Chemical Sciences

How do rocks help us to understand our planet and other solar bodies, and make viable decisions about their management?

Rocks

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Sedimentary, igneous and metamorphic rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales (ACSSU153)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate the ways in which products, services and environments evolve locally, regionally and globally and how competing factors including social, ethical and sustainability considerations are prioritised in the development of technologies and designed solutions for preferred futures (ACTDEK029)
- Analyse how food and fibre are produced when designing managed environments and how these can become more sustainable (ACTDEK032)

MATHEMATICS

- Describe events using language of ‘at least’, exclusive ‘or’ (A or B but not both), inclusive ‘or’ (A or B or both) and ‘and’. (ACMSP205)
- Represent events in two-way tables and Venn diagrams and solve related problems (ACMSP292)
- Investigate techniques for collecting data, including census, sampling and observation (ACMSP284)
Year 8

Chemical Sciences

Why is water so wondrous?

Wonderous Water

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- The properties of the different states of matter can be explained in terms of the motion and arrangement of particle (ACSSU151)
- People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE136)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate the ways in which products, services and environments evolve locally, regionally and globally and how competing factors including social, ethical and sustainability considerations are prioritised in the development of technologies and designed solutions for preferred futures (ACTDEK029)
- Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment (ACTDEK034)

MATHEMATICS

- Describe events using language of ‘at least’, exclusive ‘or’ (A or B but not both), inclusive ‘or’ (A or B or both) and ‘and’ (ACMSP205)
- Solve problems involving the use of percentages, including percentage increases and decreases, with and without digital technologies (ACMNA187)
Year 9

Chemical Sciences / Biological Sciences

How will increasing atmospheric carbon dioxide levels affect plant growth?

Carbon Dioxide & Plant Growth

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (ACSSU176)
- Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS165)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions for global preferred futures and the complex design and production processes involved (ACTDEK040)
- Explain how products, services and environments evolve with consideration of preferred futures and the impact of emerging technologies on design decisions (ACTDEK041)
- Investigate and make judgments on the ethical and sustainable production and marketing of food and fibre (ACTDEK044)

MATHEMATICS

- Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)
- Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (AMSP283)
Chemical Sciences

Do chemical reactions always release energy?

Chemical Energy

ACARA content descriptors

In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Chemical reactions, including combustion and the reaction of acids, are important to both non-living and living systems, and involve energy transfer (ACSSU179)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions (ACTDEK043)
- Investigate and make judgments on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions (ACTDEK046)

MATHEMATICS

- Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)
- Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (ACMSP283)
Year 9

Physical Sciences / Engineering

Is the concept of invisibility fact or fiction?

Invisibility

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- Energy transfer through different mediums can be explained using wave and particle models (ACSSU182)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions (ACTDEK043)
- Investigate and make judgments on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions (ACTDEK046)
- Investigate and make judgments, within a range of technologies specialisations, on how technologies can be combined to create designed solutions (ACTDEK047)

MATHEMATICS

- Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)
- Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (ACMSP283)
Year 9

Earth & Space Sciences

How do we know Pangaea existed, and could another supercontinent ever form again?

Plate Tectonics

ACARA content descriptors
In addition to being an opportunity to develop Science Inquiry Skills and understandings of Science as a Human Endeavour, this WoS Challenge Task addresses the following SCIENCE descriptor(s):

- The theory of plate tectonics explains global patterns of geological activity and continental movement (ACSSU180)
- Energy transfer through different mediums can be explained using wave and particle models (ACSSU182)

This task is also an opportunity for students to learn and demonstrate aspects of:

TECHNOLOGIES

- Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions (ACTDEK043)
- Investigate and make judgments on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions (ACTDEK046)
- Develop, modify and communicate design ideas by applying design thinking, creativity, innovation and enterprise skills of increasing sophistication (ACTDEP049)
- Develop project plans using digital technologies to plan and manage projects individually and collaboratively taking into consideration time, cost, risk and production processes (ACTDEP052)

MATHEMATICS

- Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)
- Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including ‘skewed’, ‘symmetric’ and ‘bi-modal’ (ACMSP282)
- Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (ACMSP283)