Te Tāhuhu o te Mātauranga





Achievement Objectives by Learning Area Set of 8 charts

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The Arts

_evel One

Dance

Students will:

Understanding Dance in Context

Demonstrate an awareness of dance in their lives and in their communities.

Developing Practical Knowledge

 Explore movement with a developing awareness of the dance elements of body, space, time, energy, and relationships.

Developing Ideas

Improvise and explore movement ideas in response to a variety of stimuli.

Communicating and Interpreting

 Share dance movement through informal presentation and share their thoughts and feelings in response to their own and others' dances.

Students will:

Understanding Dance in Context

level Two

Identify and describe dance in their lives and in their communities.

Developing Practical Knowledge

 Explore and identify, through movement, the dance elements of body, space, time, energy, and relationships.

Developing Ideas

 Use the elements of dance in purposeful ways to respond to a variety of stimuli.

Communicating and Interpreting

Share dance movement through informal presentation and identify the use
of the elements of dance.

Drama

Students will:

Understanding Drama in Context

 Demonstrate an awareness that drama serves a variety of purposes in their lives and in their communities.

Developing Practical Knowledge

 Explore the elements of role, focus, action, tension, time, and space through dramatic play.

Developing Ideas

Contribute and develop ideas in drama, using personal experience and imagination.

Communicating and Interpreting

 Share drama through informal presentation and respond to ways in which drama tells stories and conveys ideas in their own and others' work.

Students will:

Understanding Drama in Context

 Identify and describe how drama serves a variety of purposes in their lives and in their communities.

Developing Practical Knowledge

• Explore and use elements of drama for different purposes.

Developing Ideas

 Develop and sustain ideas in drama, based on personal experience and imagination.

Communicating and Interpreting

 Share drama through informal presentation and respond to elements of drama in their own and others' work.

Students will:

Understanding Music – Sound Arts in Context

 Explore and share ideas about music from a range of sound environments and recognise that music serves a variety of purposes and functions in their lives and in their communities.

Developing Practical Knowledge

 Explore how sound is made, as they listen and respond to the elements of music: beat, rhythm, pitch, tempo, dynamics, and tone colour.

Developing Ideas

- Explore and express sounds and musical ideas, drawing on personal experience, listening, and imagination.
- Explore ways to represent sound and musical ideas.

Communicating and Interpreting

- Share music making with others.
- Respond to live and recorded music.

Students will:

Understanding Music – Sound Arts in Context

 Explore and share ideas about music from a range of sound environments and recognise that music serves a variety of purposes and functions in their lives and in their communities.

Developing Practical Knowledge

 Explore and identify how sound is made and changed, as they listen and respond to the elements of music and structural devices.

Developing Ideas

- Improvise, explore, and express musical ideas, drawing on personal experience, listening, and imagination.
- Explore ways to represent sound and musical ideas.

Communicating and Interpreting

- Share music making with others, using basic performance skills and techniques.
- Respond to live and recorded music.

ial Arts

Music – Sound Arts

Students will:

Understanding the Visual Arts in Context

 Share ideas about how and why their own and others' works are made and their purpose, value, and context.

Developing Practical Knowledge

 Explore a variety of materials and tools and discover elements and selected principles.

Developing Ideas

 Investigate visual ideas in response to a variety of motivations, observation, and imagination.

Communicating and Interpreting

 Share the ideas, feelings, and stories communicated by their own and others' objects and images.

Students will:

Understanding the Visual Arts in Context

 Share ideas about how and why their own and others' works are made and their purpose, value, and context.

Developing Practical Knowledge

 Explore a variety of materials and tools and discover elements and selected principles.

Developing Ideas

Investigate and develop visual ideas in response to a variety of motivations, observation, and imagination.

Communicating and Interpreting

Share the ideas, feelings, and stories communicated by their own and others' objects and images.

_evel Three

Dance

Students will:

Understanding Dance in Context

Explore and describe dances from a variety of cultures.

Developing Practical Knowledge

 Use the dance elements to develop and share their personal movement vocabulary.

Developing Ideas

Select and combine dance elements in response to a variety of stimuli.

Communicating and Interpreting

- Prepare and share dance movement individually and in pairs or groups.
- Use the elements of dance to describe dance movements and respond to dances from a variety of cultures.

_evel Four

Students will:

Understanding Dance in Context

 Explore and describe how dance is used for different purposes in a variety of cultures and contexts.

Developing Practical Knowledge

 Apply the dance elements to extend personal movement skills and vocabularies and to explore the vocabularies of others.

Developing Ideas

 Combine and contrast the dance elements to express images, ideas, and feelings in dance, using a variety of choreographic processes.

Communicating and Interpreting

- Prepare and present dance, with an awareness of the performance context.
- Describe and record how the purpose of selected dances is expressed through the movement.

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Students will:

Understanding Drama in Context

Investigate the functions and purposes of drama in cultural and historical contexts.

Developing Practical Knowledge

Use techniques and relevant technologies to explore drama elements and conventions.

Developing Ideas

Initiate and develop ideas with others to create drama.

Communicating and Interpreting

 Present and respond to drama, identifying ways in which elements, techniques, conventions, and technologies combine to create meaning in their own and others' work.

Students will:

Understanding Drama in Context

 Investigate the functions, purposes, and technologies of drama in cultural and historical contexts.

Developing Practical Knowledge

- Select and use techniques and relevant technologies to develop drama practice.
- Use conventions to structure drama.

Developing Ideas

Initiate and refine ideas with others to plan and develop drama.

Communicating and Interpreting

 Present and respond to drama, identifying ways in which elements, techniques, conventions, and technologies create meaning in their own and others' work.

Students will:

Understanding Music – Sound Arts in Context

- Identify and describe the characteristics of music associated with a range of sound environments, in relation to historical, social, and cultural contexts.
- Explore ideas about how music serves a variety of purposes and functions in their lives and in their communities.

Developing Practical Knowledge

 Explore and identify how sound is made and changed, as they listen and respond to music and apply knowledge of the elements of music, structural devices, and technologies.

Developing Ideas

- Express and shape musical ideas, using musical elements, instruments, and technologies in response to sources of motivation.
- Represent sound and musical ideas in a variety of ways.

Communicating and Interpreting

- Prepare and present brief performances of music, using performance skills and techniques.
- Respond to and reflect on live and recorded music.

Students will:

Understanding Music – Sound Arts in Context

- Identify and describe the characteristics of music associated with a range of sound environments, in relation to historical, social, and cultural contexts.
- Explore ideas about how music serves a variety of purposes and functions in their lives and in their communities.

Developing Practical Knowledge

 Apply knowledge of the elements of music, structural devices, and technologies through integrating aural, practical, and theoretical skills.

Developing Ideas

- Express, develop, and refine musical ideas, using the elements of music, instruments, and technologies in response to sources of motivation.
- Represent sound and musical ideas in a variety of ways.

Communicating and Interpreting

- Prepare, rehearse, and present performance of music, using performance skills and techniques.
- Reflect on the expressive qualities of their own and others' music, both live and recorded.

ual Arts

Music – Sound Arts

Students will:

Understanding the Visual Arts in Context

 Investigate the purpose of objects and images from past and present cultures and identify the contexts in which they were or are made, viewed, and valued.

Developing Practical Knowledge

 Explore some art-making conventions, applying knowledge of elements and selected principles through the use of materials and processes.

Developing Ideas

 Develop and revisit visual ideas, in response to a variety of motivations, observation, and imagination, supported by the study of artists' works.

Communicating and Interpreting

Describe the ideas their own and others' objects and images communicate.

Students will:

Understanding the Visual Arts in Context

 Investigate the purpose of objects and images from past and present cultures and identify the contexts in which they were or are made, viewed, and valued.

Developing Practical Knowledge

• Explore and use art-making conventions, applying knowledge of elements and selected principles through the use of materials and processes.

Developing Ideas

 Develop and revisit visual ideas, in response to a variety of motivations, observation, and imagination, supported by the study of artists' works.

Communicating and Interpreting

Explore and describe ways in which meanings can be communicated and interpreted in their own and others' work.

_evel Five

Dance

Students will:

Understanding Dance in Context

 Compare and contrast dances from a variety of past and present cultures and contexts.

Developing Practical Knowledge

 Develop a variety of skills, dance techniques, vocabularies, and movement practices.

Developing Ideas

 Manipulate the elements and explore the use of choreographic devices and structures to organise dance movement.

Communicating and Interpreting

- Prepare, rehearse, and perform dance with an awareness of production technologies.
- Reflect on and describe how choreography communicates ideas, feelings, moods, and experiences.

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Students will:

Understanding Drama in Context

 Investigate the characteristics, purposes, and function of drama in a range of contexts.

Developing Practical Knowledge

 Select and use techniques, conventions, and relevant technologies for specific drama purposes.

Developing Ideas

Select and refine ideas to develop drama for specific purposes.

Communicating and Interpreting

 Present and respond to drama and describe how drama combines elements, techniques, conventions, and technologies to create structure and meaning in their own and others' work.

Students will:

Understanding Music – Sound Arts in Context

- Compare and contrast the characteristics of music associated with a range of sound environments, in relation to historical, social, and cultural contexts.
- Investigate how music serves a variety of purposes and functions in their lives and in their communities.

Developing Practical Knowledge

 Apply knowledge of the elements of music, structural devices, stylistic conventions, and technologies through integrating aural, practical, and theoretical skills.

Developing Ideas

- Use musical elements, instruments, technologies, and conventions to express, develop, and refine structured compositions and improvisations
- Represent compositions and improvisation frameworks, using appropriate conventions.

Communicating and Interpreting

- Prepare, rehearse, and present performances of music, using a range of performance skills and techniques.
- Reflect on the expressive qualities of their own and others' music, both live and recorded.

Students will:

Understanding the Visual Arts in Context

 Investigate and consider the relationship between the production of art works and their contexts and influences.

Developing Practical Knowledge

 Apply knowledge of selected conventions from established practice, using appropriate processes and procedures.

Developing Ideas

 Generate, develop, and refine ideas in response to a variety of motivations, including the study of established practice.

Communicating and Interpreting

 Compare and contrast the ways in which ideas and art-making processes are used to communicate meaning in selected objects and images.

Level Six

Students will:

Understanding Dance in Context

 Explore, investigate, and describe the features and backgrounds of a variety of dance genres and styles.

Developing Practical Knowledge

 Develop and demonstrate skills in selected dance genres and styles and explore the use of a variety of technologies.

Developing Ideas

 Select and use choreographic devices, structures, processes, and technologies to develop and give form to dance ideas.

Communicating and Interpreting

- Prepare, rehearse, and perform a range of dances and demonstrate an understanding of the performance requirements of the genres and contexts.
- Describe, explain, and respond to the ways that dance uses elements, devices, structures, performance skills, and production technologies to communicate images, themes, feelings, and moods.

Students will:

Understanding Drama in Context

 Investigate the forms and purposes of drama in different historical or contemporary contexts, including New Zealand drama.

Developing Practical Knowledge

 Select and use techniques, conventions, and technologies in a range of dramatic forms.

Developing Ideas

 Research, evaluate, and refine ideas in a range of dramatic forms to develop drama.

Communicating and Interpreting

 Perform and respond to drama and make critical judgments about how elements, techniques, conventions, and technologies are used to create form and meaning in their own and others' work.

Students will:

Understanding Music – Sound Arts in Context

- Analyse music from a range of sound environments, styles, and genres, in relation to historical, social, and cultural contexts.
- Consider and reflect on the influence of music in their own music making and in their lives.

Developing Practical Knowledge

 Apply knowledge of expressive features, stylistic conventions, and technologies through an integration of aural perception and practical and theoretical skills and describe how they are used in a range of music.

Developing Ideas

- Create, structure, refine, and represent compositions using the elements of music, instruments, technologies, and conventions to express imaginative thinking and personal understandings.
- Reflect on composition processes and presentation conventions.

Communicating and Interpreting

- Prepare, rehearse, interpret, and present performances of music individually and collaboratively, using a range of performance skills and techniques.
- Reflect on the expressive qualities of music and evaluate their own and others' music, both live and recorded.

Students will:

Understanding the Visual Arts in Context

- Investigate and analyse the relationship between the production of art works and the contexts in which they are made, viewed, and valued.
- Consider and reflect on the contexts underlying their own and others' work.

Developing Practical Knowledge

 Apply knowledge of a range of conventions from established practice, using appropriate processes and procedures.

Developing Ideas

- Generate, develop, and clarify ideas, showing some understanding of established practice.
- Sequence and link ideas systematically as they solve problems in a body of work, using observation and invention with an appropriate selection of materials.

Communicating and Interpreting

- Identify and analyse processes and procedures from established practice that influence ways of communicating meaning.
- Investigate, analyse, and evaluate ideas and interpret artists' intentions in art works.

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Jance

Students will:

Understanding Dance in Context

 Investigate and evaluate the effects of individual, social, cultural, and technological influences on the development of a variety of dance genres and styles.

Developing Practical Knowledge

 Extend skills in the vocabulary, practices, and technologies of selected dance genres and styles.

Developing Ideas

- Choreograph solo and group dance works, using choreographic processes, devices, structures, and technologies to communicate choreographic intentions.
- Generate, plan, and record choreographic ideas and processes.

Communicating and Interpreting

- Apply rehearsal and performance skills to a range of dances, using appropriate techniques and expression to communicate specific intentions.
- Analyse, explain, and discuss aspects of performance and choreography in a range of dance works.

Students will:

Understanding Drama in Context

- Research the purposes of production, performance, and technologies of drama in a range of contexts, including New Zealand drama.
- Explore how drama reflects our cultural diversity.

Developing Practical Knowledge

 Select and refine the use of techniques, conventions, and technologies in specific dramatic forms.

Developing Ideas

 Research, critically evaluate, and refine ideas to develop drama in specific dramatic forms.

Communicating and Interpreting

- Rehearse and perform works in a range of dramatic forms.
- Respond to and make critical judgments about rehearsal processes and performances.

Students will:

Understanding Music – Sound Arts in Context

- Research and analyse music from a range of sound environments, styles, and genres, in relation to historical, social, and cultural contexts, considering the impact on music making and production.
- Apply their understandings of the expressive qualities of music from a range
 of contexts to a consideration of their influence on their own music practices.

Developing Practical Knowledge

 Apply knowledge of expressive features, stylistic conventions, and technologies through an integration of aural perception and practical and theoretical skills and analyse how they are used in a range of music.

Developing Ideas

- Create, structure, refine, and represent compositions and musical arrangements, using technical and musical skills and technologies to express imaginative thinking and personal understandings.
- Reflect on and evaluate composition processes and presentation conventions.

Communicating and Interpreting

- Prepare, rehearse, present, record, and evaluate sustained performances of music, individually and collaboratively, that demonstrate interpretive understandings.
- Analyse and evaluate the expressive qualities of music and production processes to inform interpretations of music.

Students will:

Understanding the Visual Arts in Context

- Research and analyse the influences of contexts on the characteristics and production of art works.
- Research and analyse the influence of relevant contexts on their own work.

Developing Practical Knowledge

- Apply understanding from research into a range of established practice to extend skills for particular art-making purposes, using appropriate processes and procedures in selected fields.
- Extend skills, in a range of materials, techniques, and technologies.

Developing Ideas

- Generate, analyse, clarify, and extend ideas in a selected field related to established practice.
- Use a systematic approach to the development of ideas in a body of work.

Communicating and Interpreting

- Research and analyse how art works are constructed and presented to communicate meanings.
- Use critical analysis to interpret and respond to art works.

Level Eight

Students will:

Understanding Dance in Context

 Investigate, analyse, and discuss the features, history, issues, and development of dance in New Zealand, including the contribution of selected individuals and groups.

Developing Practical Knowledge

Extend and refine skills, practices, and use of technologies in a range of dance genres and styles.

Developing Ideas

- Develop a concept and produce original dance works, using appropriate production technologies to communicate choreographic intentions.
- Record and critically reflect on the development and resolution of dance ideas.

Communicating and Interpreting

- Select and apply rehearsal processes, performance skills, and production technologies to enhance the communication and expression of dance works.
- Critically analyse, interpret, and evaluate the artistic features and the communication of ideas in a range of dance works.

Students will:

Understanding Drama in Context

 Research, analyse, and critically evaluate how drama, including New Zealand drama, interprets, records, or challenges social and cultural discourse.

Developing Practical Knowledge

 Research, analyse, and integrate elements, techniques, conventions, and technologies in dramatic forms for specific purposes.

Developing Ideas

Research, critically evaluate, and refine ideas to create original drama work.

Communicating and Interpreting

- Analyse, rehearse, and perform works in a range of dramatic forms, assuming a variety of artistic or technical responsibilities.
- Reflect on and critically evaluate a wide range of works and performances.

Students will:

Understanding Music – Sound Arts in Context

- Research, analyse, and evaluate the production and presentation of music works from historical, social, and cultural contexts.
- Apply their understandings of the expressive qualities of music from a range of contexts to analyse its impact on their own music practices.

Developing Practical Knowledge

 Analyse, apply, and evaluate significant expressive features and stylistic conventions and technologies in a range of music, using aural perception and practical and theoretical skills.

Developing Ideas

- Create, structure, refine, and represent compositions and musical arrangements, using secure technical and musical skills and technologies to express imaginative thinking and personal understandings.
- Reflect on and evaluate composition processes and presentation conventions.

Communicating and Interpreting

- Plan, rehearse, present, record, evaluate, and refine performances of music, individually and collaboratively, demonstrating interpretive understandings.
- Critically analyse and evaluate the expressive qualities of music and production processes in order to refine interpretations of music.

Students will:

Understanding the Visual Arts in Context

- Use research and analysis to investigate contexts, meanings, intentions, and technological influences related to the making and valuing of art works.
- Research and analyse contexts relevant to their intentions and to the
 expression of meanings in their own work.

Developing Practical Knowledge

- Apply understanding from broad and deep research into the characteristics and constraints of materials, techniques, technologies, and established conventions in a selected field.
- Extend and refine skills in a selected field, using appropriate processes and procedures.

Developing Ideas

- Generate, analyse, clarify, and regenerate options in response to selected questions or a proposal in a chosen field.
- Use a systematic approach, selectively informed by recent and established practice, to develop ideas in a body of work.

Communicating and Interpreting

- Research and analyse selected approaches and theories related to visual arts practice.
- Critically reflect on, respond to, and evaluate art works.

Visual Arts

Music – Sound Arts

Level One

Processes and strategies

Students will:

· Acquire and begin to use sources of information, processes, and strategies to identify, form, and express ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- has an awareness of the connections between oral, written, and visual language;
- uses sources of information (meaning, structure, visual and grapho-phonic information) and prior knowledge to make sense of a range of texts;
- associates sounds with letter clusters as well as with individual letters;
- uses processing and some comprehension strategies with some confidence;
- is developing the ability to think critically about texts;
- begins to monitor, self-evaluate, and describe progress

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Recognise that texts are shaped for different purposes and audiences.

INDICATORS:

- identifies the purposes of simple texts;
- evaluates the usefulness of simple texts

Ideas

Recognise and identify ideas within and across texts.

INDICATORS:

- understands that personal experience can influence the meaning gained from texts;
- makes meaning of texts by identifying ideas in some texts.

Language features

Recognise and begin to understand how language features are used for effect within and across texts.

INDICATORS:

- begins to recognise that oral, written, and visual language features can be used for effect;
- recognises a large bank of high-frequency and some topic-specific words;
- shows some knowledge of text conventions, such as: capital letters, full stops, and word order; volume and clarity; and simple symbols.

Structure

Recognise and begin to understand text structures.

INDICATORS:

- understands that the order and organisation of words, sentences, and images contribute to text meaning;
- recognises some text forms and some differences between them.

Processes and strategies

${\it Students will:}$

Acquire and begin to use sources of information, processes, and strategies to identify, form, and express ideas.

INDICATORS:

- has an awareness of the connections between oral, written, and visual language when creating text;
- creates texts by using meaning, structure, visual and grapho-phonic sources of information, prior knowledge, and some processing strategies with some confidence;
- seeks feedback and makes changes to texts;
- is becoming reflective about the production of own texts;
- begins to monitor, self-evaluate, and describe progress.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Recognise how to shape texts for a purpose and an audience.

INDICATORS:

- constructs texts that demonstrate some awareness of purpose and audience through appropriate choice of content, language, and text form;
- expects the texts they create to be understood, responded to, and appreciated by others;
- is developing and conveying personal voice where appropriate.

Ideas

Form and express ideas on a range of topics.

INDICATORS:

- forms and expresses simple ideas and information, usually drawing from personal experience and knowledge;
- begins to support ideas with some detail.

Language features

Use language features, showing some recognition of their effects.

INDICATORS:

- uses some oral, written, and visual language features to create meaning and effect;
- uses a range of high-frequency, topic-specific, and personal-content words to create meaning;
- spells some high-frequency words correctly and begins to use some common spelling patterns;
- begins to use some strategies to self-correct and monitor spelling;
- writes most letters and number forms legibly when creating texts;
- begins to gain control of text conventions, such as: capital letters and full stops; some basic grammatical conventions; volume, clarity, and tone; and simple symbols.

Structure

Organise texts, using simple structures.

INDICATORS:

- uses knowledge of word and sentence order to communicate meaning in simple texts;
- begins to sequence ideas and information;
- uses simple sentences with some variation in beginnings;
- may attempt compound and complex sentences.

Level Two

Processes and strategies

Students will:

Select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises connections between oral, written, and visual language;
- selects and uses sources of information (meaning, structure, visual and grapho-phonic information) and prior knowledge with growing confidence to make sense of increasingly varied and complex texts;
- uses an increasing knowledge of letter clusters, affixes, roots, and compound words to confirm predictions;
- selects and uses processing strategies and an increasing range of comprehension strategies with some understanding and confidence;
- thinks critically about texts with some confidence;
- monitors, self-evaluates, and describes progress with some confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show some understanding of how texts are shaped for different purposes and audiences

INDICATORS:

- recognises how texts are constructed for different purposes, audiences, and situations;
- understands that texts are created from a particular point of view;
- evaluates the reliability and usefulness of texts with some confidence.

Ideas

Show some understanding of ideas within, across, and beyond texts.

INDICATORS:

- uses their personal experience and world and literacy knowledge to make meaning from texts:
- makes meaning of increasingly complex texts by identifying main ideas;
- makes and supports inferences from texts with some independence.

Language features

Show some understanding of how language features are used for effect within and across texts.

INDICATORS:

- recognises that oral, written, and visual language features can be used for effect;
- uses a large and increasing bank of high-frequency, topic-specific, and personal-content words to make meaning;
- shows an increasing knowledge of the conventions of text;
- recognises that authors have different voices and styles.

Structure

Show some understanding of text structures.

INDICATORS

- understands that the order and organisation of words, sentences, paragraphs, and images contribute to text meaning;
- recognises an increasing range of text forms and differences between them.

Processes and strategies

Students will:

Select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas.

INDICATORS:

- shows some understanding of the connections between oral, written, and visual language when creating texts;
- creates texts by using meaning, structure, visual and grapho-phonic sources of information, and processing strategies with growing confidence;
- seeks feedback and makes changes to texts to improve clarity and meaning;
- is reflective about the production of texts: monitors, self-evaluates, and describes progress with some confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Show some understanding of how to shape texts for different purposes and audiences.

INDICATORS:

- constructs texts that demonstrate a growing awareness of audience and purpose through appropriate choice of content, language, and text form;
- expects the texts they create to be understood, responded to, and appreciated by others;
- develops and conveys personal voice where appropriate.

Ideas

Select, form, and express ideas on a range of topics.

INDICATORS:

- forms and expresses ideas and information with reasonable clarity, often drawing on personal experience and knowledge;
- begins to add or delete details and comments, showing some selectivity in the process

Language features

Use language features appropriately, showing some understanding of their effects.

INDICATORS:

- uses oral, written, and visual language features to create meaning and effect;
- uses a large and increasing bank of high-frequency, topic-specific, and personal-content words to create meaning;
- spells most high-frequency words correctly and shows growing knowledge of common spelling patterns;
- uses a range of strategies to self-monitor and self-correct spelling;
- writes legibly and with increasing fluency when creating texts;
- gains increasing control of text conventions, including some grammatical conventions.

Structure

Organise texts, using a range of structures.

INDICATORS

- uses knowledge of word and sentence order to communicate meaning when creating texts;
- organises and sequences ideas and information with some confidence;
- begins to use a variety of sentence structures, beginnings, and lengths.

Level Three

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises and understands the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge with developing confidence to make sense of increasingly varied and complex texts;
- selects and uses a range of processing and comprehension strategies with growing understanding and confidence;
- thinks critically about texts with developing confidence;
- monitors, self-evaluates, and describes progress with growing confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show a developing understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises and understands how texts are constructed for a range of purposes, audiences, and situations;
- identifies particular points of view and begins to recognise that texts can position a reader;
- evaluates the reliability and usefulness of texts with increasing confidence.

Ideas

Show a developing understanding of ideas within, across, and beyond texts.

INDICATORS:

- uses their personal experience and world and literacy knowledge confidently to make meaning from texts;
- makes meaning of increasingly complex texts by identifying main and subsidiary ideas in them;
- starts to make connections by thinking about underlying ideas in and between texts;
- recognises that there may be more than one reading available within a text;
- makes and supports inferences from texts with increasing independence.

Language features

Show a developing understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies oral, written, and visual language features used in texts and recognises their effects;
- uses an increasing vocabulary to make meaning;
- shows an increasing knowledge of how a range of text conventions can be used appropriately;
- knows that authors have different voices and styles and can identify some of these differences.

Structure

Show a developing understanding of text structures.

INDICATORS

- understands that the order and organisation of words, sentences, paragraphs, and images contribute to and affect text meaning;
- identifies a range of text forms and recognises some of their characteristics and conventions.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.

INDICATORS

- uses a developing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of texts by integrating sources of information and processing strategies with developing confidence;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with growing confidence.

By using these processes and strategies when speaking, writing, or presenting, students will.

Purposes and audiences

Show a developing understanding of how to shape texts for different purposes and audiences.

INDICATORS:

- constructs texts that show a growing awareness of purpose and audience through careful choice of content, language, and text form;
- conveys and sustains personal voice where appropriate

Ideas

Select, form, and communicate ideas on a range of topics.

INDICATORS:

- forms and expresses ideas and information with increased clarity, drawing on a range of sources;
- adds or changes details and comments to support ideas, showing some selectivity in the process;
- ideas suggest awareness of a range of dimensions or viewpoints.

Language features

Use language features appropriately, showing a developing understanding of their effects.

INDICATORS:

- uses oral, written, and visual language features to create meaning and effect and engage interest;
- uses a range of vocabulary to communicate meaning;
- demonstrates good understanding of all basic spelling patterns and sounds in written English;
- uses an increasing range of strategies to self-monitor and self-correct spelling;
- writes legibly, fluently, and with ease when creating texts;
- uses a range of text conventions, including most grammatical conventions, appropriately and with increasing accuracy.

Structure

Organise texts, using a range of appropriate structures.

INDICATORS:

- organises written ideas into paragraphs with increasing confidence;
- organises and sequences ideas and information with increasing confidence;
- uses a variety of sentence structures, beginnings, and lengths.

Speaking, Writing, and Presenting

evel Four

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies confidently to identify, form, and express ideas,

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises and understands the connections between oral, written, and visual language:
- integrates sources of information and prior knowledge confidently to make sense of increasingly varied and complex texts:
- selects and uses appropriate processing and comprehension strategies with increasing understanding and confidence;
- thinks critically about texts with increasing understanding and confidence;
- $monitors, self-evaluates, describes\ progress, and\ articulates\ learning\ with\ confidence.$

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show an increasing understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises and understands how texts are constructed for a range of purposes, audiences, and situations;
- identifies particular points of view and recognises that texts can position a reader;
- evaluates the reliability and usefulness of texts with increasing confidence.

Ideas

Show an increasing understanding of ideas within, across, and beyond texts.

INDICATORS:

- makes meaning of increasingly complex texts by identifying and understanding main and subsidiary ideas and the links between them:
- makes connections by thinking about underlying ideas within and between texts from a range of contexts;
- recognises that there may be more than one reading available within a text;
- makes and supports inferences from texts with increasing independence

Language features

Show an increasing understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies oral, written, and visual features used and recognises and describes their effects;
- uses an increasing vocabulary to make meaning;
- shows an increasing knowledge of how a range of text conventions can be used appropriately and effectively;
- knows that authors have different voices and styles and can identify and describe some of these differences.

Structure

Show an increasing understanding of text structures.

INDICATORS:

- understands that the order and organisation of words, sentences, paragraphs, and images contribute to and affect meaning in a range of texts;
- identifies an increasing range of text forms and recognises and describes their characteristics and conventions.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies confidently to identify, form, and express ideas.

INDICATORS:

- uses an increasing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of texts by integrating sources of information and processing strategies with increasing confidence;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Show an increasing understanding of how to shape texts for different purposes and audiences.

INDICATORS:

- constructs texts that show an awareness of purpose and audience through deliberate choice of content, language, and text form;
- conveys and sustains personal voice where appropriate.

Ideas

Select, develop, and communicate ideas on a range of topics.

INDICATORS:

- forms and communicates ideas and information clearly, drawing on a range of sources;
- adds or changes details and comments to support ideas, showing thoughtful selection in the process;
- ideas show increasing awareness of a range of dimensions or viewpoints

Language features

Use a range of language features appropriately, showing an increasing understanding of their effects.

INDICATORS:

- uses a range of oral, written, and visual features to create meaning and effect and to sustain interest;
- uses a range of vocabulary to communicate precise meaning;
- demonstrates a good understanding of spelling patterns in written English, with few intrusive errors;
- uses a wide range of strategies to self-monitor and self-correct spelling;
- writes with increasing speed and endurance to suit the nature of the task and its purpose, without significant loss of legibility;
- uses a range of text conventions, including grammatical conventions, appropriately, effectively, and with increasing accuracy.

Structure

Organise texts, using a range of appropriate structures.

- achieves some coherence and wholeness when constructing texts;
- organises and sequences ideas and information for a particular purpose or effect;
- uses a variety of sentence structures, beginnings, and lengths for effect.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully and confidently to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises, understands, and considers the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge purposefully and confidently to make sense of increasingly varied and complex texts;
- selects and uses appropriate processing and comprehension strategies with confidence;
- thinks critically about texts with understanding and confidence;
- monitors, self-evaluates, and describes progress, articulating learning with confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show an understanding of how texts are shaped for different purposes and audiences.

INDICATORS

- recognises, understands, and considers how texts are constructed for a range of purposes, audiences, and situations;
- identifies particular points of view within texts and recognises that texts can position a reader;
- evaluates the reliability and usefulness of texts with confidence.

Ideas

Show an understanding of ideas within, across, and beyond texts.

INDICATORS:

- makes meaning by understanding increasingly comprehensive ideas in texts and the links between them;
- makes connections by exploring ideas within and between texts from a range of contexts;
- recognises that there may be more than one reading available within a text;
- makes and supports inferences from texts independently.

Language features

Show an understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies oral, written, and visual language features and understands their effects;
- uses an increasing vocabulary to make meaning;
- understands how a range of text conventions work together to create meaning and effect;
- understands that authors have different voices and styles and can identify those differences.

Structure

Show an understanding of a range of structures.

INDICATOR:

- identifies and understands the characteristics and conventions of a range of text forms and considers how they contribute to and affect text meaning.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully and confidently to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- uses an increasing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of increasingly varied and complex texts by integrating sources of information and processing strategies;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with confidence.

 $By \ using \ these \ processes \ and \ strategies \ when \ speaking, \ writing, \ or \ presenting, \ students \ will:$

Purposes and audiences

• Show an understanding of how to shape texts for different audiences and purposes.

INDICATORS:

- constructs a range of texts that demonstrate an understanding of purpose and audience through deliberate choice of content, language, and text form;
- conveys and sustains personal voice where appropriate.

Ideas

Select, develop, and communicate purposeful ideas on a range of topics.

INDICATORS

- develops and communicates increasingly comprehensive ideas, information, and understandings;
- develops ideas by adding details or making links to other ideas and details;
- ideas show an awareness of a range of dimensions or viewpoints.

Language features

Select and use a range of language features appropriately, showing an understanding of their effects.

INDICATORS:

- uses a wide range of oral, written, and visual language features to create meaning and effect and to sustain interest;
- uses an increasing range of vocabulary to communicate precise meaning;
- uses a wide range of text conventions, including grammatical and spelling conventions, appropriately, effectively, and with increasing accuracy.

Structure

Organise texts, using a range of appropriate, effective structures.

INDICATORS:

- achieves a sense of coherence and wholeness when constructing texts;
- organises and develops ideas and information for a particular purpose or effect, using the characteristics and conventions of a range of text forms.

Level Six

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully and confidently to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises, understands, and considers the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge purposefully and confidently to make sense of increasingly varied and complex texts;
- selects and uses appropriate processing and comprehension strategies with confidence;
- thinks critically about texts with understanding and confidence;
- monitors, self-evaluates, and describes progress, articulating learning with confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show a developed understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises, understands, and considers how texts are constructed for a range of purposes, audiences, and situations;
- identifies particular points of view within texts and recognises that texts can position a reader;
- evaluates the reliability and usefulness of texts with confidence.

Ideas

Show a developed understanding of ideas within, across, and beyond texts.

INDICATORS:

- makes meaning by understanding comprehensive ideas;
- makes connections by interpreting ideas within and between texts from a range of contexts;
- recognises that there may be more than one reading available within a text;
- makes and supports inferences from texts independently.

Language features

Show a developed understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies a range of oral, written, and visual language features and understands their effects;
- uses an increasing vocabulary to make meaning;
- understands and interprets how text conventions work together to create meaning and effect;
- understands that authors have different voices and styles and identifies and can explain these differences.

Structure

Show a developed understanding of a range of structures.

INDICATOR:

- identifies and understands the characteristics and conventions of a range of text forms and considers how they contribute to and affect text meaning.

Processes and strategies

${\it Students will:}$

Integrate sources of information, processes, and strategies purposefully and confidently to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- uses an increasing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of increasingly varied and complex texts by integrating sources of information and processing strategies;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Show a developed understanding of how to shape texts for different audiences and purposes.

INDICATORS:

- constructs a range of texts that demonstrate an understanding of purpose and audience through deliberate choice of content, language, and text form;
- conveys and sustains personal voice where appropriate.

Ideas

Select, develop, and communicate connected ideas on a range of topics.

INDICATORS:

- develops and communicates comprehensive ideas, information, and understandings;
- works towards creating coherent, planned whole texts by adding details to ideas or making links to other ideas and details;
- ideas show an understanding and awareness of a range of dimensions or viewpoints.

Language features

Select and use a range of language features appropriately for a variety of effects.

INDICATORS:

- uses a wide range of oral, written, and visual language features with control to create meaning and effect and to sustain interest;
- uses an increasing vocabulary to communicate precise meaning;
- uses a wide range of text conventions, including grammatical and spelling conventions, appropriately, effectively, and with accuracy.

Structure

Organise texts, using a range of appropriate, effective structures.

INDICATORS:

- achieves a sense of coherence and wholeness when constructing texts;
- organises and develops ideas and information for a particular purpose or effect, using the characteristics and conventions of a range of text forms.

Level Seven

Processes and strategies

Students will:

• Integrate sources of information, processes, and strategies purposefully, confidently, and precisely to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises, understands, and appreciates the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge purposefully, confidently, and precisely to make sense of increasingly varied and complex texts;
- selects and uses appropriate processing and comprehension strategies with confidence and discrimination;
- thinks critically about texts with understanding and confidence;
- monitors, self-evaluates, and describes progress, articulating learning with confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show a discriminating understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises, understands, and appreciates how texts are constructed for a range of intentions and situations;
- identifies particular points of view within texts and understands that texts can position a reader;
- evaluates the reliability and usefulness of texts.

Ideas

Show a discriminating understanding of ideas within, across, and beyond texts.

INDICATORS:

- makes meaning by understanding increasingly sophisticated ideas;
- makes connections by analysing ideas within and between texts from a range of contexts;
- understands that there may be multiple readings available within a text;
- makes and supports inferences from texts independently.

Language features

Show a discriminating understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies a range of increasingly sophisticated oral, written, and visual language features and understands their effects;
- uses an increasing vocabulary to make meaning;
- understands and analyses how text conventions work together to create meaning and effect;
- understands that authors have different voices and styles and appreciates these differences.

Structure

Show a discriminating understanding of a range of structures.

INDICATOR

- identifies and understands the characteristics and conventions of a range of text forms and appreciates how they contribute to and affect text meaning.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully, confidently, and precisely to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- uses an increasing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of increasingly coherent, varied, and complex texts by integrating sources of information and processing strategies;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Show a discriminating understanding of how to shape texts for different audiences and purposes.

INDICATORS:

- constructs a range of texts that demonstrate an understanding and appreciation of purpose and audience through deliberate choice of content, language, and text form;
- conveys and sustains personal voice where appropriate.

Ideas

Select, develop, and communicate sustained ideas on a range of topics.

INDICATORS:

- develops, communicates, and sustains increasingly sophisticated ideas, information, and understandings;
- creates coherent, planned whole texts by adding details to ideas or making links to other ideas and details;
- ideas show depth of thought and awareness of a range of dimensions or viewpoints.

Language features

Select and integrate a range of language features appropriately for a variety of effects.

INDICATORS:

- uses a wide range of oral, written, and visual language features fluently and with control to create meaning and effect and to sustain interest;
- uses an increasing vocabulary to communicate precise meaning;
- uses a wide range of text conventions, including grammatical and spelling conventions, appropriately, effectively, and with accuracy.

Structure

Organise texts, using a range of appropriate, coherent, and effective structures.

INDICATOR

 organises and develops ideas and information for a particular purpose or effect, using the characteristics and conventions of a range of text forms with control.

Level Eight

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully, confidently, and precisely to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises, understands, and appreciates the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge purposefully, confidently, and precisely to make sense of increasingly varied and complex texts;
- selects and uses appropriate processing and comprehension strategies with confidence and discrimination;
- thinks critically about texts with understanding and confidence;
- monitors, self-evaluates, and describes progress, articulating learning with confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

Show a discriminating understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises, understands, and appreciates how texts are constructed for a range of intentions and situations;
- identifies particular points of view within texts and understands that texts can position a reader;
- evaluates the reliability and usefulness of texts.

Ideas

Show a discriminating and insightful understanding of ideas within, across, and beyond texts.

INDICATORS:

- makes meaning by perceptively understanding sophisticated ideas;
- makes connections by analysing, evaluating, and synthesising ideas within and between texts from a range of contexts;
- understands that there may be multiple readings available within a text;
- makes and supports inferences from texts independently.

Language features

Show a discriminating and insightful understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies a range of sophisticated oral, written, and visual language features and understands their effects;
- uses an increasing vocabulary to make meaning;
- understands, analyses, and evaluates how text conventions work together to create meaning and effect;
- understands that authors have different voices and styles and appreciates these differences.

Structure

Show a discriminating understanding of a range of structures.

INDICATOR:

- identifies and understands the characteristics and conventions of a range of text forms and appreciates how they contribute to and affect text meaning.

Processes and strategies

Students will:

Integrate sources of information, processes, and strategies purposefully, confidently, and precisely to identify, form, and express increasingly sophisticated ideas.

INDICATORS:

- uses an increasing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of increasingly coherent, varied, and complex texts by integrating sources of information and processing strategies;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts: monitors and self-evaluates progress, articulating learning with confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

Show a discriminating understanding of how to shape texts for different purposes and audiences.

INDICATORS:

- constructs a range of texts that demonstrate an understanding and appreciation of purpose and audience through deliberate choice of content, language, and text form:
- conveys and sustains personal voice where appropriate.

Ideas

Select, develop, and communicate sustained and insightful ideas on a range of topics.

INDICATORS:

- develops, communicates, and sustains sophisticated ideas, information, and understandings;
- creates coherent, planned whole texts by adding details to ideas or making links to other ideas and details;
- ideas show perception, depth of thought, and awareness of a range of dimensions or viewpoints.

Language features

Select, integrate, and sustain the use of a range of language features appropriately for a variety of effects.

INDICATORS:

- uses a wide range of oral, written, and visual language features coherently, fluently, and with control to create meaning and command attention;
- uses an increasing vocabulary to communicate precise meaning;
- uses a wide range of text conventions, including grammatical and spelling conventions, appropriately, effectively, and with accuracy.

Structure

Organise texts, using a range of appropriate, coherent, and effective structures.

INDICATOR:

- organises and develops ideas and information for a particular purpose or effect, using the characteristics and conventions of a range of text forms with control.

Health and Physical Education

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Personal Health and Physical Development

Students will:

A1 Personal growth and development

Describe feelings and ask questions about their health, growth, development, and personal needs and wants.

A2 Regular physical activity

Participate in creative and regular physical activities and identify enjoyable

A3 Safety management

Describe and use safe practices in a range of contexts and identify people who can help.

Describe themselves in relation to a range of contexts.

Level Two

Students will:

A1 Personal growth and development

Describe their stages of growth and their development needs and demonstrate increasing responsibility for self-care.

Experience creative, regular, and enjoyable physical activities and describe

A3 Safety management

Identify risk and use safe practices in a range of contexts.

A4 Personal identity

Identify personal qualities that contribute to a sense of self-worth.

Movement Concepts and Motor Skills

Students will:

B1 Movement skills; B3 Science and technology

Develop a wide range of movement skills, using a variety of equipment and play environments.

B2 Positive attitudes; B4 Challenges and social and cultural factors

Participate in a range of games and activities and identify the factors that make participation safe and enjoyable.

Students will:

B1 Movement skills

Practise movement skills and demonstrate the ability to link them in order to perform movement sequences.

Participate in and create a variety of games and activities and discuss the enjoyment that these activities can bring to them and others.

B3 Science and technology

Use modified equipment in a range of contexts and identify how this enhances movement experiences.

B4 Challenges and social and cultural factors

Develop and apply rules and practices in games and activities to promote fair, safe, and culturally appropriate participation for all.

Relationships with Other People

Students will:

C1 Relationships

Explore and share ideas about relationships with other people.

C2 Identity, sensitivity, and respect

Demonstrate respect through sharing and co-operation in groups.

Express their own ideas, needs, wants, and feelings clearly and listen to those of other people.

Students will:

C1 Relationships

Identify and demonstrate ways of maintaining and enhancing relationships between individuals and within groups.

C2 Identity, sensitivity, and respect

Describe how individuals and groups share characteristics and are also unique.

Express their ideas, needs, wants, and feelings appropriately and listen sensitively to other people and affirm them.



Students will-

D2 Community resources

Identify and discuss obvious hazards in their home, school, and local environment and adopt simple safety practices.

D3 Rights, responsibilities, and laws; D4 People and the environment

Take individual and collective action to contribute to environments that can be enjoyed by all.

Students will-

D1 Societal attitudes and values

Explore how people's attitudes, values, and actions contribute to healthy physical and social environments.

D2 Community resources

Identify and use local community resources and explain how these contribute to a healthy community.

D3 Rights, responsibilities, and laws; D4 People and the environment

Contribute to and use simple guidelines and practices that promote physically and socially healthy classrooms, schools, and local environments.

Healthy Communities and Environments

Level Three

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Personal Health and Physical Development

Students will:

A1 Personal growth and development

 Identify factors that affect personal, physical, social, and emotional growth and develop skills to manage changes.

A2 Regular physical activity

 Maintain regular participation in enjoyable physical activities in a range of environments and describe how these assist in the promotion of well-being.

A3 Safety management

· Identify risks and their causes and describe safe practices to manage these.

A4 Personal identity

 Describe how their own feelings, beliefs, and actions, and those of other people, contribute to their personal sense of self-worth.

Level Four

Students will:

A1 Personal growth and development

 Describe the characteristics of pubertal change and discuss positive adjustment strategies.

A2 Regular physical activity

 Demonstrate an increasing sense of responsibility for incorporating regular and enjoyable physical activity into their personal lifestyle to enhance well-being.

A3 Safety management

 Access and use information to make and action safe choices in a range of contexts

A4 Personal identity

 Describe how social messages and stereotypes, including those in the media, can affect feelings of self-worth.

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Movement Concepts and Motor Skills

Students will:

B1 Movement skills

 Develop more complex movement sequences and strategies in a range of situations.

B2 Positive attitudes

 Develop movement skills in challenging situations and describe how these challenges impact on themselves and others.

B3 Science and technology

 Participate in and describe how their body responds to regular and vigorous physical activity in a range of environments.

B4 Challenges and social and cultural factors

Participate in co-operative and competitive activities and describe how cooperation and competition can affect people's behaviour and the quality of the experience.

Students will:

B1 Movement skills

Demonstrate consistency and control of movement in a range of situations.

B2 Positive attitudes

 Demonstrate willingness to accept challenges, learn new skills and strategies, and extend their abilities in movement-related activities.

B3 Science and technology

 Experience and demonstrate how science, technology, and the environment influence the selection and use of equipment in a variety of settings.

B4 Challenges and social and cultural factors

 Participate in and demonstrate an understanding of how social and cultural practices are expressed through movement.

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Students will:

C1 Relationships

 Identify and compare ways of establishing relationships and managing changing relationships.

C2 Identity, sensitivity, and respect

 Identify ways in which people discriminate and ways to act responsibly to support themselves and other people.

C3 Interpersonal skills

 Identify the pressures that can influence interactions with other people and demonstrate basic assertiveness strategies to manage these.

Students will:

C1 Relationships

 Identify the effects of changing situations, roles, and responsibilities on relationships and describe appropriate responses.

C2 Identity, sensitivity, and respect

 Recognise instances of discrimination and act responsibly to support their own rights and feelings and those of other people.

C3 Interpersonal skills

 Describe and demonstrate a range of assertive communication skills and processes that enable them to interact appropriately with other people.

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Students will:

D1 Societal attitudes and values

 Identify how health care and physical activity practices are influenced by community and environmental factors.

D2 Community resources

 Participate in communal events and describe how such events enhance the well-being of the community.

D3 Rights, responsibilities, and laws

 Research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness.

D4 People and the environment

 Plan and implement a programme to enhance an identified social or physical aspect of their classroom or school environment.

Students will:

D1 Societal attitudes and values

 Investigate and describe lifestyle factors and media influences that contribute to the well-being of people in New Zealand.

D2 Community resources

 Investigate and/or access a range of community resources that support well-being and evaluate the contribution made by each to the well-being of community members

D3 Rights, responsibilities, and laws; D4 People and the environment

 Specify individual responsibilities and take collective action for the care and safety of other people in their school and in the wider community.

Healthy Communities and Environments D Relationships with Other People

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Students will:

A1 Personal growth and development

Describe physical, social, emotional, and intellectual processes of growth and relate these to features of adolescent development and effective selfmanagement strategies.

A2 Regular physical activity

Experience a range of personally enjoyable physical activities and describe how varying levels of involvement affect well-being and lifestyle balance.

Investigate and practise safety procedures and strategies to manage risk situations

A4 Personal identity

Investigate and describe the ways in which individuals define their own identity and sense of self-worth and how this influences the ways in which they describe other people.

Students will:

Level Six

A1 Personal growth and development

Investigate and understand reasons for the choices people make that affect their well-being and explore and evaluate options and consequences

Choose and maintain ongoing involvement in appropriate physical activities and examine factors influencing their participation.

A3 Safety management

Demonstrate understanding of responsible behaviours required to ensure that challenges and risks are managed safely in physical and social environments

A4 Personal identity

Demonstrate an understanding of factors that contribute to personal identity and celebrate individuality and affirm diversity.

Students will:

B1 Movement skills

Acquire and apply complex motor skills by using basic principles of motor learning.

B2 Positive attitudes

Develop skills and responsible attitudes in challenging physical situations.

B3 Science and technology

Investigate and experience ways in which scientific, technological, and environmental knowledge and resources assist in and influence people's participation in regular physical activity.

B4 Challenges and social and cultural factors

Investigate and experience ways in which people's physical competence and participation are influenced by social and cultural factors.

Students will:

B1 Movement skills

Acquire, apply, and refine specialised motor skills by using the principles of motor skill learning.

B2 Positive attitudes

Demonstrate and examine responsible attitudes in challenging physical

B3 Science and technology

Apply scientific and technological knowledge and resources to enhance physical abilities in a range of environments.

B4 Challenges and social and cultural factors

Demonstrate understanding and affirmation of people's diverse social and cultural needs and practices when participating in physical activities.

Students will:

C1 Relationships

Identify issues associated with relationships and describe options to achieve positive outcomes.

C2 Identity, sensitivity, and respect

Demonstrate an understanding of how attitudes and values relating to difference influence their own safety and that of other people.

Demonstrate a range of interpersonal skills and processes that help them to make safe choices for themselves and other people in a variety of settinas.

Students will:

C1 Relationships

Demonstrate an understanding of how individuals and groups affect relationships by influencing people's behaviour, beliefs, decisions, and

C2 Identity, sensitivity, and respect

Plan and evaluate strategies recognising their own and other people's rights and responsibilities to avoid or minimise risks in social situations.

C3 Interpersonal skills

Plan strategies and demonstrate interpersonal skills to respond to challenging situations appropriately.

Students will:

D1 Societal attitudes and values

Investigate societal influences on the well-being of student communities.

Investigate community services that support and promote people's wellbeing and take action to promote personal and group involvement.

D3 Rights, responsibilities, and laws

Identify the rights and responsibilities of consumers and use this information to evaluate health and recreational services and products in

D4 People and the environment

Investigate and evaluate aspects of the school environment that affect people's well-being and take action to enhance these aspects.

Students will:

D1 Societal attitudes and values

Analyse societal influences that shape community health goals and physical activity patterns.

Advocate for the development of services and facilities to meet identified needs in the school and the community.

D3 Rights, responsibilities, and laws

Compare and contrast personal values and practices with policies, rules, and laws and investigate how the latter contribute to safety in the school and community.

D4 People and the environment

Investigate the roles and the effectiveness of local, national, and international organisations that promote well-being and environmental care

Movement Concepts and Motor Skills

Students will:

A1 Personal growth and development

Assess their health needs and identify strategies to ensure personal wellbeing across their lifespan.

A2 Regular physical activity

Plan, implement, and evaluate a physical activity programme and examine factors used to justify physical activity as a means of enhancing well-being.

A3 Safety management

Analyse the difference between perceived and residual risks in physical and social environments and develop skills and behaviour for managing responsible action.

A4 Personal identity

Critically evaluate societal attitudes, values, and expectations that affect people's awareness of their personal identity and sense of self-worth in a range of life situations.

Level Eight

Students will:

A1 Personal growth and development

Critically evaluate a range of qualitative and quantitative data to devise strategies to meet their current and future needs for well-being

A2 Regular physical activity

Critically examine commercial products and programmes that promote physical activity and relate this to personal participation in programmes intended to meet their current well-being needs.

A3 Safety management

Critically analyse dilemmas and contemporary ethical issues that influence their own health and safety and that of other people.

A4 Personal identity

Critically analyse the impacts that conceptions of personal, cultural, and national identity have on people's well-being.

Students will-

B1 Movement skills

Appraise specialised motor skills and adapt them to extend physical competence and recreational opportunities.

B2 Positive attitudes

Adapt skills and appraise responsible attitudes in challenging physical situations and unfamiliar environments.

B3 Science and technology

Apply relevant scientific, technological, and environmental knowledge and use appropriate resources to improve performance in a specialised physical activity.

B4 Challenges and social and cultural factors

Appraise, adapt, and use physical activities to ensure that specific social and cultural needs are met.

Students will:

B1 Movement skills

Devise, apply, and evaluate strategies to improve physical activity performance for themselves and others.

B2 Positive attitudes

Devise, apply, and appraise strategies through which they and other people can participate responsibly in challenging physical situations.

B3 Science and technology

Critically analyse and experience the application of scientific and technological knowledge and resources to physical activity in a range of environments.

B4 Challenges and social and cultural factors

Devise and apply strategies to ensure that social and cultural needs are met in personal and group physical activities.

Students will:

C1 Relationships

Analyse the nature and benefits of meaningful interpersonal relationships.

C2 Identity, sensitivity, and respect

Analyse the beliefs, attitudes, and practices that reinforce stereotypes and role expectations, identifying ways in which these shape people's choices at individual, group, and societal levels.

Evaluate information, make informed decisions, and use interpersonal skills effectively to manage conflict, competition, and change in relationships

Students will:

C1 Relationships

Critically analyse the dynamics of effective relationships in a range of social contexts

C2 Identity, sensitivity, and respect

Critically analyse attitudes, values, and behaviours that contribute to conflict and identify and describe ways of creating more harmonious relationships.

C3 Interpersonal skills

Analyse and evaluate attitudes and interpersonal skills that enable people to participate fully and effectively as community members in various situations

Students will:

D1 Societal attitudes and values

Analyse ways in which events and social organisations promote healthy communities and evaluate the effects they have.

Evaluate school and community initiatives that promote young people's well-being and develop an action plan to instigate or support these.

D3 Rights, responsibilities, and laws

Evaluate laws, policies, practices, and regulations in terms of their contribution to social justice at school and in the wider community.

D4 People and the environment

Analyse ways in which the environment and the well-being of a community are affected by population pressure and technological processes.

Students will:

D1 Societal attitudes and values

Critically analyse societal attitudes and practices and legislation influencing contemporary health and sporting issues, in relation to the need to promote mentally healthy and physically safe communities.

Establish and justify priorities for equitable distribution of available health and recreational resources and advocate change where necessary.

D3 Rights, responsibilities, and laws

Demonstrate the use of health promotion strategies by implementing a plan of action to enhance the well-being of the school, community, or environment.

D4 People and the environment

Critically analyse the interrelationships between people, industry, technology, and legislation on aspects of environmental health.

Learning Languages

Levels One and Two

Proficiency Descriptor

Students can understand and use familiar expressions and everyday vocabulary. Students can interact in a simple way in supported situations. (Adapted from *Common European Framework for Languages*, Global Scale Level A1: Basic User; Council of Europe, 2001.)

Cultural

Knowledge

particular ways.

Recognise that the target

culture(s) is (are) organised in

Make connections with known

In selected linguistic and sociocultural contexts, students will:

Selecting and using language, symbols, and texts to communicate

Receive and produce information.

Managing self and relating to others

· Produce and respond to questions and requests.

Participating and contributing in communities

Show social awareness when interacting with others.



Language Knowledge

Students will:

- Recognise that the target language is organised in particular ways.
- Make connections with their own language(s).

Students can understand and construct simple texts using their knowledge of the target language. Students can describe aspects of their own background and immediate environment. (Adapted from Common European Framework for Languages, Global Scale Level A1: Basic User; Council of Europe, 2001.)

In selected linguistic and sociocultural contexts, students will:

evels Three and Four

Selecting and using language, symbols, and texts to communicate

Understand and produce information and ideas.

Managing self and relating to others

Proficiency Descriptor

Express and respond to personal needs and interests.

Participating and contributing in communities

Use cultural knowledge to communicate appropriately.





Language Knowledge

Students will

- Recognise and describe ways in which the target language is organised.
- Compare and contrast languages.

Cultural Knowledge

Students will:

- Recognise and describe ways in which the target culture(s) is (are) organised.
- Compare and contrast cultural practices.

evels Five and Six

Proficiency Descriptor

Students can understand and produce more complex language. They can communicate beyond the immediate context, for example, about past and future events. Students can understand and produce a variety of text types. (Adapted from Common European Framework for Languages, Global Scale Level A2: Strong Waystage Performance; Council of Europe, 2001.)

In selected linguistic and sociocultural contexts, students will:

Selecting and using language, symbols, and texts to communicate

 Communicate information, ideas, and opinions through different text types.

Managing self and relating to others

Express and respond to personal ideas and opinions.

Participating and contributing in communities

Communicate appropriately in different situations.

Levels Seven and Eight

Proficiency Descriptor

Students can use language variably and effectively to express and justify their own ideas and opinions and support or challenge those of others. They are able to use and identify the linguistic and cultural forms that guide interpretation and enable them to respond critically to texts. (Adapted from Common European Framework for Languages, Global Scale Level B1: Independent User; Council of Europe, 2001.)

In selected linguistic and sociocultural contexts, students will:

Selecting and using language, symbols, and texts to communicate

 Communicate information, ideas, and opinions through increasingly complex and varied texts.

Managing self and relating to others

Explore the views of others, developing and sharing personal perspectives.

Participating and contributing in communities

· Engage in sustained interaction and produce extended text.



Language Knowledge

Students will:

 Understand ways in which the target language is organised for different purposes.

Cultural Knowledge

Students will:

 Understand ways in which the target culture(s) is (are) organised for different purposes.

Language Knowledge

Students will:

- Analyse ways in which the target language is organised in different texts and for different purposes.
- Explore how linguistic meaning is conveyed across languages.

Cultural Knowledge

Students will:

- Analyse ways in which the target culture(s) is (are) organised for different purposes and for different audiences.
- Analyse how the use of the target language expresses cultural meanings.



Mathematics and Statistics

Level One



In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Level Two



In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Number strategies

 Use a range of counting, grouping, and equal-sharing strategies with whole numbers and fractions.

Number knowledge

- Know the forward and backward counting sequences of whole numbers to 100.
- Know groupings with five, within ten, and with ten.

Equations and expressions

Communicate and explain counting, grouping, and equal-sharing strategies, using words, numbers, and pictures.

Patterns and relationships

- Generalise that the next counting number gives the result of adding one object to a set and that counting the number of objects in a set tells how many.
- Create and continue sequential patterns.

Number strategies

• Use simple additive strategies with whole numbers and fractions.

Number knowledge

- Know forward and backward counting sequences with whole numbers to at least 1000.
- Know the basic addition and subtraction facts.
- Know how many ones, tens, and hundreds are in whole numbers to at least 1000.
- Know simple fractions in everyday use.

Equations and expressions

 Communicate and interpret simple additive strategies, using words, diagrams (pictures), and symbols.

Patterns and relationships

- · Generalise that whole numbers can be partitioned in many ways.
- Find rules for the next member in a sequential pattern.

Measuremen

 Order and compare objects or events by length, area, volume and capacity, weight (mass), turn (angle), temperature, and time by direct comparison and/or counting whole numbers of units.

Shape

Sort objects by their appearance.

Position and orientation

- Give and follow instructions for movement that involve distances, directions, and half or quarter turns.
- Describe their position relative to a person or object.

Traneformation

 Communicate and record the results of translations, reflections, and rotations on plane shapes.

Measuremen

- Create and use appropriate units and devices to measure length, area, volume and capacity, weight (mass), turn (angle), temperature, and time.
- Partition and/or combine like measures and communicate them, using numbers and units.

Shape

- Sort objects by their spatial features, with justification.
- Identify and describe the plane shapes found in objects.

Position and orientation

- Create and use simple maps to show position and direction.
- Describe different views and pathways from locations on a map.

Transformation

 Predict and communicate the results of translations, reflections, and rotations on plane shapes.

Statistical investigation Conduct investiga

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting and counting, and displaying category data;
 - discussing the results.

Statistical literacy

 Interpret statements made by others from statistical investigations and probability activities.

Probability

 Investigate situations that involve elements of chance, acknowledging and anticipating possible outcomes.

Statistical investigation

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting, and displaying category and whole-number data;
 - communicating findings based on the data.

Statistical literacy

 Compare statements with the features of simple data displays from statistical investigations or probability activities undertaken by others.

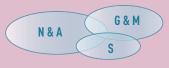
Probability

 Investigate simple situations that involve elements of chance, recognising equal and different likelihoods and acknowledging uncertainty.



In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Level Four



In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Number strategies

 Use a range of additive and simple multiplicative strategies with whole numbers, fractions, decimals, and percentages.

Number knowledge

- Know basic multiplication and division facts.
- Know counting sequences for whole numbers.
- Know how many tenths, tens, hundreds, and thousands are in whole numbers.
- · Know fractions and percentages in everyday use.

Equations and expressions

 Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.

Patterns and relationships

- Generalise the properties of addition and subtraction with whole numbers.
- Connect members of sequential patterns with their ordinal position and use tables, graphs, and diagrams to find relationships between successive elements of number and spatial patterns.

Number strategies and knowledge

- Use a range of multiplicative strategies when operating on whole numbers.
- Understand addition and subtraction of fractions, decimals, and integers.
- Find fractions, decimals, and percentages of amounts expressed as whole numbers, simple fractions, and decimals.
- Apply simple linear proportions, including ordering fractions.
- Know the equivalent decimal and percentage forms for everyday fractions.
- Know the relative size and place value structure of positive and negative integers and decimals to three places.

Equations and expressions

Form and solve simple linear equations.

Patterns and relationships

- Generalise properties of multiplication and division with whole numbers.
- Use graphs, tables, and rules to describe linear relationships found in number and spatial patterns.

Measurement

- Use linear scales and whole numbers of metric units for length, area, volume and capacity, weight (mass), angle, temperature, and time.
- Find areas of rectangles and volumes of cuboids by applying multiplication.

Shape

- Classify plane shapes and prisms by their spatial features.
- Represent objects with drawings and models.

Position and orientation

 Use a co-ordinate system or the language of direction and distance to specify locations and describe paths.

Transformation

 Describe the transformations (reflection, rotation, translation, or enlargement) that have mapped one object onto another.

Measurement

- Use appropriate scales, devices, and metric units for length, area, volume and capacity, weight (mass), temperature, angle, and time.
- Convert between metric units, using whole numbers and commonly used decimals.
- Use side or edge lengths to find the perimeters and areas of rectangles, parallelograms, and triangles and the volumes of cuboids.
- · Interpret and use scales, timetables, and charts

Shape

- Identify classes of two- and three-dimensional shapes by their geometric properties.
- Relate three-dimensional models to two-dimensional representations, and vice versa.

Position and orientation

 Communicate and interpret locations and directions, using compass directions, distances, and grid references.

Transformation

 Use the invariant properties of figures and objects under transformations (reflection, rotation, translation, or enlargement).

Statistical investigation

- Conduct investigations using the statistical enquiry cycle:
 - gathering, sorting, and displaying multivariate category and wholenumber data and simple time-series data to answer questions;
 - identifying patterns and trends in context, within and between data sets;
 - communicating findings, using data displays.

Statistical literacy

Evaluate the effectiveness of different displays in representing the findings
of a statistical investigation or probability activity undertaken by others.

Probability

 Investigate simple situations that involve elements of chance by comparing experimental results with expectations from models of all the outcomes, acknowledging that samples vary.

Statistical investigation

- Plan and conduct investigations using the statistical enquiry cycle:
 - determining appropriate variables and data collection methods;
 - gathering, sorting, and displaying multivariate category, measurement, and time-series data to detect patterns, variations, relationships, and trends;
 - comparing distributions visually;
 - communicating findings, using appropriate displays.

Statistical literacy

 Evaluate statements made by others about the findings of statistical investigations and probability activities.

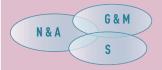
Probability

- Investigate situations that involve elements of chance by comparing experimental distributions with expectations from models of the possible outcomes, acknowledging variation and independence.
- Use simple fractions and percentages to describe probabilities.

N & A G & M S

In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Level Six



In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Number strategies and knowledge

- Reason with linear proportions.
- Use prime numbers, common factors and multiples, and powers (including square roots).
- Understand operations on fractions, decimals, percentages, and integers.
- · Use rates and ratios
- Know commonly used fraction, decimal, and percentage conversions.
 - Know and apply standard form, significant figures, rounding, and decimal place value.

Equations and expressions

• Form and solve linear and simple quadratic equations.

Patterns and relationships

- Generalise the properties of operations with fractional numbers and integers.
- Relate tables, graphs, and equations to linear and simple quadratic relationships found in number and spatial patterns.

Number strategies and knowledge

- Apply direct and inverse relationships with linear proportions.
- Extend powers to include integers and fractions.
- Apply everyday compounding rates.
- Find optimal solutions, using numerical approaches.

Equations and expressions

 Form and solve linear equations and inequations, quadratic and simple exponential equations, and simultaneous equations with two unknowns.

Patterns and relationships

- Generalise the properties of operations with rational numbers, including the properties of exponents.
- Relate graphs, tables, and equations to linear, quadratic, and simple exponential relationships found in number and spatial patterns.
- Relate rate of change to the gradient of a graph.

Measurement

- Select and use appropriate metric units for length, area, volume and capacity, weight (mass), temperature, angle, and time, with awareness that measurements are approximate.
- Convert between metric units, using decimals.
- Deduce and use formulae to find the perimeters and areas of polygons and the volumes of prisms.
- Find the perimeters and areas of circles and composite shapes and the volumes of prisms, including cylinders.

Shape

- Deduce the angle properties of intersecting and parallel lines and the angle properties of polygons and apply these properties.
- Create accurate nets for simple polyhedra and connect three-dimensional solids with different two-dimensional representations.

Position and orientation

- Construct and describe simple loci.
- Interpret points and lines on co-ordinate planes, including scales and bearings on maps.

Transformation

- Define and use transformations and describe the invariant properties of figures and objects under these transformations.
- Apply trigonometric ratios and Pythagoras' theorem in two dimensions.

Measurement

- Measure at a level of precision appropriate to the task.
- Apply the relationships between units in the metric system, including the
 units for measuring different attributes and derived measures.
- Calculate volumes, including prisms, pyramids, cones, and spheres, using formulae.

Shape

- Deduce and apply the angle properties related to circles.
- Recognise when shapes are similar and use proportional reasoning to find an unknown length.
- Use trigonometric ratios and Pythagoras' theorem in two and three dimensions.

Position and orientation

 Use a co-ordinate plane or map to show points in common and areas contained by two or more loci.

Transformation

- Compare and apply single and multiple transformations.
- $\bullet \qquad \hbox{Analyse symmetrical patterns by the transformations used to create them}.$

Statistical investigation

- Plan and conduct surveys and experiments using the statistical enquiry cycle:
 - determining appropriate variables and measures;
 - considering sources of variation;
 - gathering and cleaning data;
 - using multiple displays, and re-categorising data to find patterns, variations, relationships, and trends in multivariate data sets;
 - comparing sample distributions visually, using measures of centre, spread, and proportion;
 - presenting a report of findings.

Statistical literacy

 Evaluate statistical investigations or probability activities undertaken by others, including data collection methods, choice of measures, and validity of findings.

Probability

- Compare and describe the variation between theoretical and experimental distributions in situations that involve elements of chance.
- Calculate probabilities, using fractions, percentages, and ratios.

Statistical investigation

- Plan and conduct investigations using the statistical enquiry cycle:
 - justifying the variables and measures used;
 - managing sources of variation, including through the use of random sampling;
 - identifying and communicating features in context (trends, relationships between variables, and differences within and between distributions), using multiple displays;
 - making informal inferences about populations from sample data;
 - justifying findings, using displays and measures.

Statistical literacy

 Evaluate statistical reports in the media by relating the displays, statistics, processes, and probabilities used to the claims made.

Probability

- Investigate situations that involve elements of chance:
 - comparing discrete theoretical distributions and experimental distributions, appreciating the role of sample size;
 - calculating probabilities in discrete situations.

Level Seven

In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

Level Eight

In a range of meaningful contexts, students will be engaged in thinking mathematically and statistically. They will solve problems and model situations that require them to:

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Patterns and relationships

- Apply co-ordinate geometry techniques to points and lines.
- Display the graphs of linear and non-linear functions and connect the structure of the functions with their graphs.
- Use arithmetic and geometric sequences and series.
- Apply trigonometric relationships, including the sine and cosine rules, in two and three dimensions.
- Choose appropriate networks to find optimal solutions.

Equations and expressions

- Manipulate rational, exponential, and logarithmic algebraic expressions.
- Form and use linear, quadratic, and simple trigonometric equations.
- Form and use pairs of simultaneous equations, one of which may be nonlinear.

Calculus

- Sketch the graphs of functions and their gradient functions and describe the relationship between these graphs.
- Apply differentiation and anti-differentiation techniques to polynomials.

Patterns and relationships

- Apply the geometry of conic sections.
- Display and interpret the graphs of functions with the graphs of their inverse and/or reciprocal functions.
- Use permutations and combinations.
- Use curve fitting, log modelling, and linear programming techniques.
- Develop network diagrams to find optimal solutions, including critical paths.

Equations and expressions

- Manipulate trigonometric expressions.
- Form and use trigonometric, polynomial, and other non-linear equations.
- Form and use systems of simultaneous equations, including three linear equations and three variables, and interpret the solutions in context.
- Manipulate complex numbers and present them graphically.

Calculus

- Identify discontinuities and limits of functions.
- Choose and apply a variety of differentiation, integration, and antidifferentiation techniques to functions and relations, using both analytical and numerical methods.
- Form differential equations and interpret the solutions.

Statistical investigation

- Carry out investigations of phenomena, using the statistical enquiry cycle:
 - conducting surveys that require random sampling techniques, conducting experiments, and using existing data sets;
 - evaluating the choice of measures for variables and the sampling and data collection methods used;
 - using relevant contextual knowledge, exploratory data analysis, and statistical inference.
- Make inferences from surveys and experiments:
 - making informal predictions, interpolations, and extrapolations;
 - using sample statistics to make point estimates of population parameters;
 - recognising the effect of sample size on the variability of an estimate.

Statistical literacy

- Evaluate statistically based reports:
 - interpreting risk and relative risk;
 - identifying sampling and possible non-sampling errors in surveys, including polls.

Probability

- Investigate situations that involve elements of chance:
 - comparing theoretical continuous distributions, such as the normal distribution, with experimental distributions;
 - calculating probabilities, using such tools as two-way tables, tree diagrams, simulations, and technology.

Statistical investigation

- Carry out investigations of phenomena, using the statistical enquiry cycle:
 - conducting experiments using experimental design principles, conducting surveys, and using existing data sets;
 - finding, using, and assessing appropriate models (including linear regression for bivariate data and additive models for time-series data), seeking explanations, and making predictions;
 - using informed contextual knowledge, exploratory data analysis, and statistical inference;
 - communicating findings and evaluating all stages of the cycle.
- Make inferences from surveys and experiments:
 - determining estimates and confidence intervals for means, proportions, and differences, recognising the relevance of the central limit theorem;
 - using methods such as resampling or randomisation to assess the strength of evidence.

Statistical literacy

- Evaluate a wide range of statistically based reports, including surveys and polls, experiments, and observational studies:
 - critiquing causal-relationship claims;
 - interpreting margins of error.

Probability

- Investigate situations that involve elements of chance:
 - calculating probabilities of independent, combined, and conditional events;
 - calculating and interpreting expected values and standard deviations of discrete random variables:
 - applying distributions such as the Poisson, binomial, and normal.

Statistics

Planet Earth and Beyond

chievement Aims

Students will:

Understanding about science

Learn about science as a knowledge system: the features of scientific knowledge and the processes by which it is developed; and learn about the ways in which the work of scientists interacts with society.

Investigating in science

Carry out science investigations using a variety of approaches: classifying and identifying, pattern seeking, exploring, investigating models, fair testing, making things, or developing systems.

Communicating in science

Develop knowledge of the vocabulary, numeric and symbol systems, and conventions of science and use this knowledge to communicate about their own and others' ideas.

Participating and contributing

Bring a scientific perspective to decisions and actions as appropriate.

Students will:

Life processes

Understand the processes of life and appreciate the diversity of living

Ecology

Understand how living things interact with each other and with the nonliving environment.

Understand the processes that drive change in groups of living things over long periods of time and be able to discuss the implications of these changes

Students will:

Earth systems

Investigate and understand the spheres of the Earth system: geosphere (land), hydrosphere (water), atmosphere (air), and biosphere (life).

Investigate and understand that the geosphere, hydrosphere, atmosphere, and biosphere are connected via a complex web of processes.

Astronomical systems

Investigate and understand relationships between the Earth, Moon, Sun. solar system, and other systems in the universe.

Students will:

Physical inquiry and physics concepts

Explore and investigate physical phenomena in everyday situations.

Physical concepts

Gain an understanding of the interactions that take place between different parts of the physical world and the ways in which these interactions can be

Using physics

Apply their understanding of physics to various applications.

Students will:

Understanding about science

evels One and Two

Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.

Investigating in science

Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.

Communicating in science

Build their language and develop their understandings of the many ways the natural world can be represented.

Participating and contributing

Explore and act on issues and questions that link their science learning to their daily living.

Students will:

Life processes

Recognise that all living things have certain requirements so they can stay

Ecology

Recognise that living things are suited to their particular habitat.

Evolution

- Recognise that there are lots of different living things in the world and that they can be grouped in different ways.
- Explain how we know that some living things from the past are now extinct.

Students will:

Earth systems

Explore and describe natural features and resources.

Interacting systems

Describe how natural features are changed and resources affected by natural events and human actions.

Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.

Students will:

Physical inquiry and physics concepts

- Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
- Seek and describe simple patterns in physical phenomena.

Students will-

Properties and changes of matter

Observe, describe, and compare physical and chemical properties of common materials and changes that occur when materials are mixed, heated, or cooled.

Chemistry and society

Find out about the uses of common materials and relate these to their observed properties

Students will:

Properties and changes of matter

Investigate the properties of materials.

The structure of matter

- Interpret their observations in terms of the particles (atoms, molecules, ions, and sub-atomic particles), structures, and interactions present.
- Understand and use fundamental concepts of chemistry.

Chemistry and society

Make connections between the concepts of chemistry and their applications and show an understanding of the role chemistry plays in the world around them.

evel Three

evel Four

Students will: Nature of Science

Understanding about science

- Appreciate that science is a way of explaining the world and that science knowledge changes over time.
- Identify ways in which scientists work together and provide evidence to support their ideas.

Investigating in science

- Build on prior experiences, working together to share and examine their own and others' knowledge.
- Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.

Communicating in science

- Begin to use a range of scientific symbols, conventions, and vocabulary.
- Engage with a range of science texts and begin to question the purposes for which these texts are constructed.

- Use their growing science knowledge when considering issues of concern to them.
- Explore various aspects of an issue and make decisions about possible actions.

Students will:

Life processes

Recognise that there are life processes common to all living things and that these occur in different ways.

Ecology

Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

- Begin to group plants, animals, and other living things into science-based classifications
- Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.

Students will:

Life processes

Recognise that there are life processes common to all living things and that these occur in different ways.

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Ecology

Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

- Begin to group plants, animals, and other living things into science-based classifications
- Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are guite different from living things in other areas of the world.

Students will:

Earth systems

Appreciate that water, air, rocks and soil, and life forms make up our planet and recognise that these are also Earth's resources.

Interacting systems

Investigate the water cycle and its effect on climate, landforms, and life.

Astronomical systems

Investigate the components of the solar system, developing an appreciation of the distances between them.

Students will-

Earth systems

Develop an understanding that water, air, rocks and soil, and life forms make up our planet and recognise that these are also Earth's resources.

Interacting systems

Investigate the water cycle and its effect on climate, landforms, and life.

Astronomical systems

Investigate the components of the solar system, developing an appreciation of the distances between them.

Students will:

Physical inquiry and physics concepts

Explore, describe, and represent patterns and trends for everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe the effect of forces (contact and non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.

Students will:

Physical inquiry and physics concepts

Explore, describe, and represent patterns and trends for everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe the effect of forces (contact and non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.

Students will:

Properties and changes of matter

- Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
- Compare chemical and physical changes.

Chemistry and society

Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.

Students will:

Properties and changes of matter

- Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
- Compare chemical and physical changes.

The structure of matter

Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.

Chemistry and society

Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.

Planet Earth and Beyond

Level Five

Level Six

Nature of Science

Students will:

Understanding about science

Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.

Investigating in science

- Develop and carry out more complex investigations, including using models.
- Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
- Begin to evaluate the suitability of the investigative methods chosen.

Communicating in science

- Use a wider range of science vocabulary, symbols, and conventions.
- Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).

Participating and contributing

Develop an understanding of socio-scientific issues by gathering relevant scientific information in order to draw evidence-based conclusions and to take action
where appropriate.

ving World

Students will:

Life processes

- Identify the key structural features and functions involved in the life processes of plants and animals.
- · Describe the organisation of life at the cellular level.

Ecology

Investigate the interdependence of living things (including humans) in an
ecosystem.

Evolution

Describe the basic processes by which genetic information is passed from one generation to the next.

Students will:

Life processes

 Relate key structural features and functions to the life processes of plants, animals, and micro-organisms and investigate environmental factors that affect these processes.

If If If I

Ecology

 Investigate the impact of natural events and human actions on a New Zealand ecosystem.

Evolution

- Explore patterns in the inheritance of genetically controlled characteristics.
- Explain the importance of variation within a changing environment.

Planet Earth and Beyond

Students will:

Earth systems

 Investigate the composition, structure, and features of the geosphere, hydrosphere, and atmosphere.

Interacting systems

 Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.

Astronomical systems

Investigate the conditions on the planets and their moons, and the factors
affecting them.

Students will:

Earth systems

 Investigate the external and internal processes that shape and change the surface features of New Zealand.

Interacting systems

 Develop an understanding of how the geosphere, hydrosphere, atmosphere, and biosphere interact to cycle carbon around Earth.

Astronomical systems

 Investigate the interactions between the solar, lunar, and Earth cycles and the effect of these on Earth.

ימר איטונע

Students will:

Physical inquiry and physics concepts

Identify and describe the patterns associated with physical phenomena found in simple everyday situations involving movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe energy changes and conservation of energy, simple electrical circuits, and the effect of contact and non-contact on the motion of objects.

Using physics

Explore a technological or biological application of physics.

Students will:

Physical inquiry and physics concepts

- Investigate trends and relationships in physical phenomena (in the areas of mechanics, electricity, electromagnetism, heat, light and waves, and atomic and nuclear physics).
- Demonstrate an understanding of physical phenomena and concepts by explaining and solving questions and problems that relate to straightforward situations.

Using physics

Investigate how physics knowledge is used in a technological or biological application.

Students will:

Properties and changes of matter

- Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
- Distinguish between pure substances and mixtures and between elements and compounds.

The structure of matter

- Describe the structure of the atoms of different elements.
- Distinguish between an element and a compound, a pure substance and a mixture at particle level.

Chemistry and society

 Link the properties of different groups of substances to the way they are used in society or occur in nature.

Students will:

Properties and changes of matter

- Identify patterns and trends in the properties of a range of groups of substances, for example, acids and bases, metals, metal compounds, and hydrocarbons.
- Explore factors that affect chemical processes.

The structure of matter

- Distinguish between atoms, molecules, and ions (includes covalent and ionic bonding).
- Link atomic structure to the organisation of the periodic table.
- Use particle theory to explain factors that affect chemical processes.

Chemistry and society

Investigate how chemical knowledge is used in a technological application of chemistry.

Level Seven

Level Eight

Nature of Science

Students will:

Understanding about science

Understand that scientists have an obligation to connect their new ideas to current and historical scientific knowledge and to present their findings for peer review and debate.

Investigating in science

• Develop and carry out investigations that extend their science knowledge, including developing their understanding of the relationship between investigations and scientific theories and models.

Communicating in science

 Use accepted science knowledge, vocabulary, symbols, and conventions when evaluating accounts of the natural world and consider the wider implications of the methods of communication and/or representation employed.

Participating and contributing

Use relevant information to develop a coherent understanding of socio-scientific issues that concern them, to identify possible responses at both personal and societal levels.

Students will:

Life processes

 Explore the diverse ways in which animals and plants carry out the life processes.

Ecology

 Explore ecological distribution patterns and explain possible causes for these patterns.

Evolution

Understand that DNA and the environment interact in gene expression.

Ecology and evolution

Explain how the interaction between ecological factors and natural selection leads to genetic changes within populations.

Students will:

Life processes, ecology, and evolution

Understand the relationship between organisms and their environment.

If If It I

- Explore the evolutionary processes that have resulted in the diversity of life on Earth and appreciate the place and impact of humans within these processes.
- Understand how humans manipulate the transfer of genetic information from one generation to the next and make informed judgments about the social, ethical, and biological implications relating to this manipulation.

Students will:

Earth systems and interacting systems

 Develop an understanding of the causes of natural hazards and their interactions with human activity on Earth.

Astronomical systems

 Explain the nature and life cycles of different types of stars in terms of energy changes and time.

Students will:

Earth systems and interacting systems

 Develop an in-depth understanding of the interrelationship between human activities and the geosphere, hydrosphere, atmosphere, and biosphere over time.

Astronomical systems

Explore recent astronomical events or discoveries, showing understanding
of the concepts of distance and time.

Students will:

Physical inquiry and physics concepts

- Investigate physical phenomena (in the areas of mechanics, electricity, electromagnetism, light and waves, and atomic and nuclear physics) and produce qualitative and quantitative explanations for a variety of unfamiliar situations.
- Analyse data to deduce complex trends and relationships in physical phenomena.

Using physics

 Use physics ideas to explain a technological or biological application of physics.

Students will:

Physical inquiry and physics concepts

- Investigate physical phenomena (in the areas of mechanics, electricity, electromagnetism, light and waves, and atomic and nuclear physics) and produce qualitative and quantitative explanations for a variety of complex situations.
- Analyse and evaluate data to deduce complex trends and relationships in physical phenomena.

Using physics

 Use physics ideas to explain a technological, biological, or astronomical application of physics and discuss related issues.

${\it Students will:}$

Properties and changes of matter

 Investigate and measure the chemical and physical properties of a range of groups of substances, for example, acids and bases, oxidants and reductants, and selected organic and inorganic compounds.

The structure of matte

- Relate properties of matter to structure and bonding.
- Develop an understanding of and use the fundamental concepts of chemistry (for example, equilibrium and thermochemical principles) to interpret observations.

Chemistry and society

 Apply knowledge of chemistry to explain aspects of the natural world and how chemistry is used in society to meet needs, resolve issues, and develop new technologies.

Students will:

Properties and changes of matter

 Investigate and measure the chemical and physical properties of a range of groups of substances, for example, acids and bases, oxidants and reductants, and selected organic and inorganic compounds.

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Planet Earth and Beyond

nysical World

Social Sciences

Level One

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how belonging to groups is important for people.
- Understand that people have different roles and responsibilities as part of their participation in groups.
- Understand how the past is important to people.
- Understand how places in New Zealand are significant for individuals and groups.
- Understand how the cultures of people in New Zealand are expressed in their daily lives.

Level Two

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand that people have social, cultural, and economic roles, rights, and responsibilities.
- Understand how people make choices to meet their needs and wants
- Understand how cultural practices reflect and express people's customs, traditions, and values.
- Understand how time and change affect people's lives.
 Understand how places influence
- people and people influence places.
- Understand how people make significant contributions to New Zealand's society.
- Understand how the status of Māori as tangata whenua is significant for communities in New Zealand.

Level Three

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how groups make and implement rules and laws.
- Understand how cultural practices vary but reflect similar purposes.
- Understand how people view and use places differently.
- Understand how people make decisions about access to and use of resources.
- Understand how people remember and record the past in different ways.
- Understand how early Polynesian and British migrations to New Zealand have continuing significance for tangata whenua and communities.
- Understand how the movement of people affects cultural diversity and interaction in New Zealand.

Level Four

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how the ways in which leadership of groups is acquired and exercised have consequences for communities and societies.
- Understand how people pass on and sustain culture and heritage for different reasons and that this has consequences for people.
- Understand how exploration and innovation create opportunities and challenges for people, places, and environments.
- Understand that events have causes and effects.
- Understand how producers and consumers exercise their rights and meet their responsibilities.
- Understand how formal and informal groups make decisions that impact on communities.
- Understand how people participate individually and collectively in response to community challenges.

Level Five

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how systems of government in New Zealand operate and affect people's lives, and how they compare with another system.
- Understand how the Treaty of Waitangi is responded to differently by people in different times and places.
- Understand how cultural interaction impacts on cultures and societies.
- Understand that people move between places and how this has consequences for the people and the places.
- Understand how economic decisions impact on people, communities, and nations.
- Understand how people's management of resources impacts on environmental and social sustainability.
- Understand how the ideas and actions of people in the past have had a significant impact on people's lives.
- Understand how people seek and have sought economic growth through business, enterprise, and innovation.
- Understand how people define and seek human rights.

Level Six

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how individuals, groups, and institutions work to promote social justice and human rights.
- Understand how cultures adapt and change and that this has consequences for society.

History

- Understand how the causes and consequences of past events that are of significance to New Zealanders shape the lives of people and society.
- Understand how people's perspectives on past events that are of significance to New Zealanders differ.

Geography

- Understand that natural and cultural environments have particular characteristics and how environments are shaped by processes that create spatial patterns.
- Understand how people interact with natural and cultural environments and that this interaction has consequences.

Economic

- Understand how, as a result of scarcity, consumers, producers, and government make choices that affect New Zealand society.
- Understand how the different sectors of the New Zealand economy are interdependent.

Level Seven

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how communities and nations meet their responsibilities and exercise their rights in local, national, and global contexts.
- Understand how conflicts can arise from different cultural beliefs and ideas and be addressed in different ways with differing outcomes.

History

- Understand how historical forces and movements have influenced the causes and consequences of events of significance to New Zealanders.
- Understand how people's interpretations of events that are of significance to New Zealanders differ.

Geography

- Understand how the processes that shape natural and cultural environments change over time, vary in scale and from place to place, and create spatial patterns.
- Understand how people's perceptions of and interactions with natural and cultural environments differ and have changed over time.

Economics

- Understand how economic concepts and models provide a means of analysing contemporary New Zealand issues.
- Understand how government policies and contemporary issues interact.

Level Eight

Students will gain knowledge, skills, and experience to:

Social Studies

- Understand how policy changes are influenced by and impact on the rights, roles, and responsibilities of individuals and communities.
- Understand how ideologies shape society and that individuals and groups respond differently to these beliefs.

History

- Understand that the causes, consequences, and explanations of historical events that are of significance to New Zealanders are complex and how and why they are contested.
- Understand how trends over time reflect social, economic, and political forces.

Geography

- Understand how interacting processes shape natural and cultural environments, occur at different rates and on different scales, and create spatial variations.
- Understand how people's diverse values and perceptions influence the environmental, social, and economic decisions and responses that they make.

Economics

- Understand that well-functioning markets are efficient but that governments may need to intervene where markets fail to deliver efficient or equitable outcomes.
- Understand how the nature and size of the New Zealand economy is influenced by interacting internal and external factors.



Technology

Level One

Technological Practice

Students will:

Planning for practice

 Outline a general plan to support the development of an outcome, identifying appropriate steps and resources.

Brief development

 Describe the outcome they are developing and identify the attributes it should have, taking account of the need or opportunity and the resources available.

Outcome development and evaluation

Investigate a context to communicate potential outcomes. Evaluate these
against attributes; select and develop an outcome in keeping with the
identified attributes.

Level Two

Students will:

Planning for practice

Develop a plan that identifies the key stages and the resources required to complete an outcome.

Brief development

 Explain the outcome they are developing and describe the attributes it should have, taking account of the need or opportunity and the resources available

Outcome development and evaluation

Investigate a context to develop ideas for potential outcomes. Evaluate
these against the identified attributes; select and develop an outcome.
Evaluate the outcome in terms of the need or opportunity.

Students will:

Technological modelling

 Understand that functional models are used to represent reality and test design concepts and that prototypes are used to test technological outcomes.

Technological products

 Understand that technological products are made from materials that have performance properties.

Technological systems

 Understand that technological systems have inputs, controlled transformations, and outputs.

Students will:

Technological modelling

Understand that functional models are used to explore, test, and evaluate design concepts for potential outcomes and that prototyping is used to test a technological outcome for fitness of purpose.

Technological products

 Understand that there is a relationship between a material used and its performance properties in a technological product.

Technological systems

 Understand that there are relationships between the inputs, controlled transformations, and outputs occurring within simple technological systems

Students will:

Characteristics of technology

Understand that technology is purposeful intervention through design.

Characteristics of technological outcomes

 Understand that technological outcomes are products or systems developed by people and have a physical nature and a functional nature.

Students will:

Characteristics of technology

 Understand that technology both reflects and changes society and the environment and increases people's capability.

Characteristics of technological outcomes

 Understand that technological outcomes are developed through technological practice and have related physical and functional natures.

_evel Three

Students will:

Planning for practice

 Undertake planning to identify the key stages and resources required to develop an outcome. Revisit planning to include reviews of progress and identify implications for subsequent decision making.

Brief development

Describe the nature of an intended outcome, explaining how it addresses the need or opportunity. Describe the key attributes that enable development and evaluation of an outcome.

Outcome development and evaluation

Investigate a context to develop ideas for potential outcomes. Trial and
evaluate these against key attributes to select and develop an outcome to
address the need or opportunity. Evaluate this outcome against the key
attributes and how it addresses the need or opportunity.

Level Four

Students will:

Planning for practice

 Undertake planning that includes reviewing the effectiveness of past actions and resourcing, exploring implications for future actions and accessing of resources, and consideration of stakeholder feedback, to enable the development of an outcome.

Brief development

 Justify the nature of an intended outcome in relation to the need or opportunity. Describe the key attributes identified in stakeholder feedback, which will inform the development of an outcome and its evaluation.

Outcome development and evaluation

Investigate a context to develop ideas for feasible outcomes. Undertake
functional modelling that takes account of stakeholder feedback in order
to select and develop the outcome that best addresses the key attributes.
Incorporating stakeholder feedback, evaluate the outcome's fitness for
purpose in terms of how well it addresses the need or opportunity.

Students will:

Technological modelling

Understand that different forms of functional modelling are used to inform
decision making in the development of technological possibilities and that
prototypes can be used to evaluate the fitness of technological outcomes for
further development.

Technological products

 Understand the relationship between the materials used and their performance properties in technological products.

Technological systems

 Understand that technological systems are represented by symbolic language tools and understand the role played by the "black box" in technological systems.

Students will:

Technological modelling

 Understand how different forms of functional modelling are used to explore possibilities and to justify decision making and how prototyping can be used to justify refinement of technological outcomes.

Technological products

 Understand that materials can be formed, manipulated, and/or transformed to enhance the fitness for purpose of a technological product.

Technological systems

 Understand how technological systems employ control to allow for the transformation of inputs to outputs.

Students will:

Characteristics of technology

 Understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function.

Characteristics of technological outcomes

 Understand that technological outcomes are recognisable as fit for purpose by the relationship between their physical and functional natures.

Students will:

Characteristics of technology

 Understand how technological development expands human possibilities and how technology draws on knowledge from a wide range of disciplines.

Characteristics of technological outcomes

 Understand that technological outcomes can be interpreted in terms of how they might be used and by whom and that each has a proper function as well as possible alternative functions.

Level Five

Students will:

Planning for practice

Analyse their own and others' planning practices to inform the selection and use of planning tools. Use these to support and justify planning decisions (including those relating to the management of resources) that will see the development of an outcome through to completion.

Justify the nature of an intended outcome in relation to the need or opportunity. Describe specifications that reflect key stakeholder feedback and that will inform the development of an outcome and its evaluation.

Outcome development and evaluation

Analyse their own and others' outcomes to inform the development of ideas for feasible outcomes. Undertake ongoing functional modelling and evaluation that takes account of key stakeholder feedback and trialling in the physical and social environments. Use the information gained to select and develop the outcome that best addresses the specifications. Evaluate the final outcome's fitness for purpose against the brief.

Level Six

Students will:

Planning for practice

Critically analyse their own and others' past and current planning practices in order to make informed selection and effective use of planning tools. Use these to support and justify ongoing planning that will see the development of an outcome through to completion.

Brief development

Justify the nature of an intended outcome in relation to the need or opportunity and justify specifications in terms of key stakeholder feedback and wider community considerations.

Outcome development and evaluation

Critically analyse their own and others' outcomes to inform the development of ideas for feasible outcomes. Undertake ongoing experimentation and functional modelling, taking account of stakeholder feedback and trialling in the physical and social environments. Use the information gained to select, justify, and develop a final outcome. Evaluate this outcome's fitness for purpose against the brief and justify the evaluation, using feedback from stakeholders.

Students will:

Technological modelling

Understand how evidence, reasoning, and decision making in functional modelling contribute to the development of design concepts and how prototyping can be used to justify ongoing refinement of outcomes.

Technological products

Understand how materials are selected, based on desired performance criteria.

Technological systems

Understand the properties of subsystems within technological systems.

Students will:

Technological modelling

Understand the role and nature of evidence and reasoning when managing risk through technological modelling.

Technological products

Understand how materials are formed, manipulated, and transformed in different ways, depending on their properties, and understand the role of material evaluation in determining suitability for use in product

Technological systems

Understand the implications of subsystems for the design, development, and maintenance of technological systems.

Students will:

Characteristics of technology

Understand how people's perceptions and acceptance of technology impact on technological developments and how and why technological knowledge becomes codified.

Characteristics of technological outcomes

Understand that technological outcomes are fit for purpose in terms of time and context. Understand the concept of malfunction and how "failure" can inform future outcomes.

Students will:

Characteristics of technology

Understand the interdisciplinary nature of technology and the implications of this for maximising possibilities through collaborative practice.

Characteristics of technological outcomes

Understand that some technological outcomes can be perceived as both product and system. Understand how these outcomes impact on other outcomes and practices and on people's views of themselves and possible futures.

Level Seven

Students will:

Planning for practice

Critically analyse their own and others' past and current planning and management practices in order to develop and employ project management practices that will ensure the effective development of an outcome to

Brief development

Justify the nature of an intended outcome in relation to the issue to be resolved and justify specifications in terms of key stakeholder feedback and wider community considerations.

Outcome development and evaluation

Critically analyse their own and others' outcomes and evaluative practices to inform the development of ideas for feasible outcomes. Undertake a critical evaluation that is informed by ongoing experimentation and functional modelling, stakeholder feedback, and trialling in the physical and social environments. Use the information gained to select, justify, and develop an outcome. Evaluate this outcome's fitness for purpose against the brief. Justify the evaluation, using feedback from stakeholders and demonstrating a critical understanding of the issue.

Level Eight

Students will:

Planning for practice

Critically analyse their own and others' past and current planning and management practices in order to develop and employ project management practices that will ensure the efficient development of an outcome to completion.

Justify the nature of an intended outcome in relation to the context and the issue to be resolved. Justify specifications in terms of key stakeholder feedback and wider community considerations.

Outcome development and evaluation

Critically analyse their own and others' outcomes and fitness-for-purpose determinations in order to inform the development of ideas for feasible outcomes. Undertake a critical evaluation that is informed by ongoing experimentation and functional modelling, stakeholder feedback, trialling in the physical and social environments, and an understanding of the issue as it relates to the wider context. Use the information gained to select, justify, and develop an outcome. Evaluate this outcome's fitness for purpose against the brief. Justify the evaluation, using feedback from stakeholders and demonstrating a critical understanding of the issue that takes account of all contextual dimensions.

Students will:

Technological modelling

Understand how the "should" and "could" decisions in technological modelling rely on an understanding of how evidence can change in value across contexts and how different tools are used to ascertain and mitigate

Technological products

Understand the concepts and processes employed in materials evaluation and the implications of these for design, development, maintenance, and disposal of technological products.

Technological systems

Understand the concepts of redundancy and reliability and their implications for the design, development, and maintenance of technological systems.

Students will:

Technological modelling

Understand the role of technological modelling as a key part of technological development, justifying its importance on moral, ethical, sustainable, cultural, political, economic, and historical grounds.

Technological products

Understand the concepts and processes employed in materials development and evaluation and the implications of these for design, development, maintenance, and disposal of technological products

Technological systems

Understand operational parameters and their role in the design, development, and maintenance of technological systems.

Students will:

Characteristics of technology

Understand the implications of ongoing contestation and competing priorities for complex and innovative decision making in technological development

Characteristics of technological outcomes

Understand that technological outcomes are a resolution of form and function priorities and that malfunction affects how people view and accept

Students will:

Characteristics of technology

Understand the implications of technology as intervention by design and how interventions have consequences, known and unknown, intended and unintended.

Characteristics of technological outcomes

Understand how technological outcomes can be interpreted and justified as fit for purpose in their historical, cultural, social, and geographical locations.