Ashburton Borough School

Curriculum

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Learning Areas

Learning Areas

Ashburton Borough School ~ English Programme

Rationale

English is fundamental to learning, thinking and communicating and is essential to access learning in other curriculum areas and throughout life. The English curriculum develops the ability to speak, listen, read, view and write with enjoyment, purpose, effect and confidence in a wide range of contexts.
At Ashburton Borough School we believe that Literacy is one of the two foundations of learning. Our vision states; effective communicators are students who are able to give and receive information efficiently; orally, visually and in written form.

Structure - How is English structured?

English is structured around two interconnected strands, each encompassing the oral, written and visual forms of language;

- **Receiving Meaning -** Strands: Reading, listening and viewing
- **Constructing Meaning -** Strands: Writing, speaking and presenting

School organisation - How do we carry out learning in English?

- English, as one of the foundations of learning, is seen as a 'stand-alone' subject with dedicated daily teaching when key literacy skills will be taught.
- English is a vital component of the curriculum as a whole and will, in addition to the dedicated literacy teaching, be integrated into other curriculum areas as appropriate, as students use the literacy knowledge and skills taught in a purposeful context.
- Teachers will plan a cohesive, integrated, engaging English programme based on suggested learning contexts, taking into account the multiple pathways that students take in their literacy learning.
- Teachers may adjust term blocks in the year's overview to suit integration into their class programme to ensure purposeful contexts for literacy learning.
- The English overview covers achievement objectives in the English strands and in library knowledge and information literacy, as reading and writing form the basis of library and research skills. Library and Info lit skills will be taught through authentic contexts in both English and Inquiry.

Refer to 'English Programme of Work' for detailed years overview

Assessment - How do we assess and report on English outcomes?

Assessment reading tools used;

- AsTTle reading (where to next tool)
- Running records
- STAR

Writing assessments used;

- Writing samples (Assessment Resource Bank Tasks / asTTle writing)
- Exemplars (modelling & moderating)
- Rubrics ~ self, peer and teacher assessments against writing criteria
- Spelling level established – against benchmarks from writing exemplars;
  - Level 1 - Spell Write essential lists 1-2
  - Level 2 - Spell Write essential lists 1-4
  - Level 3 - Spell Write essential lists 1-6
  - Level 4 - Spell Write essential lists 1-7
- Spelling age established using Schonell Spelling test. Test 1 odd years, Test 2 even years

Assessment oral language tools used;

- Listening PAT – A predictor for reading ability
- Rubrics ~ self, peer and teacher assessments against a range of presenting/viewing criteria

Assessment presentation tools used;

- **Handwriting samples -** self and teacher rubric assessments against criteria from handwriting syllabus.

Assessment information literacy tools used;

- On a rotational basis ABS will use 'Essential skills'to inform / report on achievement in info lit skills

Ashburton Borough School ~ Mathematics and Statistics Programme

Rationale

Mathematics in *The New Zealand Curriculum* (Ministry of Education, 1992: 7) states that 'mathematics understanding and skills contribute to people's sense of self-worth and ability to control aspects of their lives. Everyone needs to develop mathematical concepts and skills to help them understand and play a responsible role in our society.' Mathematics education aims to provide students with such skills, and therefore the need for students to be numerate (able to calculate, estimate and use measuring instruments) is identified as a key outcome for education.
The ABS Mathematics programme aims to develop a positive attitude towards, and a contributing interest in, mathematics in everyday life. ABS aims for students to develop the ability to think creativity, strategically and logically through its mathematics programme.

Structure - How is Mathematics and Statistics structured?

- The achievement objectives are presented in three connected strands;
  - **Number and Algebra:** involves calculating and estimating, using appropriate mental, written or machine calculation methods in flexible ways.
  - **Geometry and measurement:** involves recognising and using the properties and symmetries of shapes and describing position and movement. Measurement involves quantifying the attributes of objects, using appropriate units and instruments and predicting and calculating rates of change.
  - **Statistics:** involves identifying problems that can be explored by the use of appropriate data, designing investigations, collecting data, solving problems and communicating findings.
- **Integrated aspects of PYP and Numeracy places increased emphasis on;**
  - Connecting mathematical concepts and application to learning
  - The manipulation of apparatus to make mathematics understandable to students
  - Real-life problem solving using mathematics
  - Instruction built on what students know, what they want to find out, and how they best might find out
  - A variety of possible multiple solutions – emphasis on process
  - The use of technology for appropriate purposes
  - Students investigating, questioning, discussing, justifying and journaling their mathematics
  - Students and teacher engaged in mathematical discourse

School organisation - How do we carry out learning in Mathematics and Statistics?

- Maths, as one of the foundations of learning, is seen as a 'standalone' subject with dedicated daily teaching when key mathematic skills will be taught.
- Priority will be given to numeracy.
- Maths Programme of work includes strands to be taught per term, respective timeframe is included.
- Teachers will use class cross grouping and interchange with other classes to cater for individuals learning stages.
- **Mathematic enrichment opportunities include;**
  - Participation in maths week
  - Cantamaths
  - Otago problem solving,
  - SuccessMaker (for extension and remedial)
  - International maths competition

Refer to 'Maths Programme of Work' for detailed years overview

Assessment - How do we assess and report on Mathematics and Statistics outcomes?

Assessment follows the ABS timeline on an annual basis.

- Numeracy
  - February – Knowledge (IKAN) whole school
  - March - Add/Sub strategies – reporting whole school tracking
  - June - Mult/Div strategies – Year 4-8 school tracking
  - July - Knowledge (IKAN) whole school
  - September – Prop/Ratios strategies – Year 4-8
  - October – Add/Sub strategies – reporting whole school tracking
- Other strands pre and post tested as required (asTTle or teacher made tests)
- Year 4 – 8 students will undertake PAT Maths test March and October - formative and summative test results for grouping and reporting purposes and asTTle in October (Annual comparison of data)
- Mathematic assessment results reported to parents, as appropriate, at term 1, mid year and end of year conferences.
- Assessment process to include portfolio examples of mathematics. Eg tests, samples of work (Samples to include WALT, success criteria & rubric) and children's maths exercise book

Ashburton Borough School ~ Arts Programme

Rationale

Learning in the arts stimulates imagination, creativity, thinking, and inquiry. It encourages a life-long interest in The Arts and contributes to the development of key competencies. A balanced Arts programme allows children to gain pleasure, grow aesthetically and realise potential through action and interpretation.

Structure - How are The Arts structured?

- Programmes will contain a balance of all Arts disciplines (*Dance, Drama, Music and Visual Art*) and will provide sequential and holistic learning across all four strands (*Understanding the Arts in Context, Developing Practical Knowledge, Developing Ideas, Communicating and Interpreting*) in each discipline, to allow progression in, through, and about the arts.
- Coverage will occur in a variety of ways; providing separate opportunities for learning in each discipline, combining learning in the arts disciplines and integrating the arts disciplines into other essential learning areas, particularly inquiry.
- The Arts programme will reflect the multicultural nature of New Zealand society, and acknowledge the artistic and cultural contributions of different ethnic groups, particularly those significant to Ashburton Borough School.
- Development of appropriate attitudes and values will be encouraged through building understanding and tolerance, clarifying and reflecting on aspects of various cultures and beliefs.

School organisation - How do we carry out learning in The Arts?

- Classes may teach The Arts as standalone disciplines, as an integrated unit, or integrated into Inquiry learning depending on specialist skills and teaching structures (ie release teachers, skills rotations etc)
- Lessons in the Arts focus on the progress of the Arts objectives and also on developing a wide range of Key Competencies and Transdisciplinary skills
- Weekly assemblies include whole school singing, utilising 'assembly songs' that are learnt in the class programme. Weekly assemblies also provide an opportunity to celebrate/share our learning in the Arts.
- The school provides enrichment opportunities for children to choose from, to experience aspects of the arts through participation; for instance - Choir, Band, Kapahaka Group and Enrichment workshops (drama/music, dance, guitar, printing, sculpture, mosaics)
- Students take part in a Musical production twice in their time at Borough (4 year cycle)
- The school will offer opportunities for students to experience interactions with visiting or touring artists, arts organisations, and art makers with high artistic standards. (Arts coordinator organises 3-4 cultural visits per year)
- The school participates in district Arts events annually. (The Ashburton Music and Art Festivals, Cultural festival and Christchurch Music Festival.)

Refer to 'Arts Programme of Work' for detailed years overview

Assessment - How do we assess and report on Arts outcomes?

Assessment will;

- be focused on progress in the achievement objectives and key competencies
- improve student learning by providing opportunities for regular feed-forward and feedback,
- use specific learning outcomes and clearly understood expectations for achievement (WALTs / Success criteria / rubric)
- provide assessment information that is both formative and summative
- be integrated with students' self-evaluation and guided peer evaluation
- inform parents/caregivers of their child's progress and achievement
- evidence of students' progress used for assessment could include live presentations, exhibitions, work in progress, portfolios, workbooks, journals, audio and video recordings, and school website documentation.
- On a rotational basis ABS will use NEMP (random selection of years 4 and 8 students) to inform / report on school achievement in the Arts.

Ashburton Borough School ~ Health & Physical Education Programme

Rationale

Teaching and learning in Health and Physical Education will develop student's knowledge, skills, and understandings in relation to Hauora, Health Promotion, Socio-ecological Perspectives, and Attitudes and Values. It will foster student's abilities to manage lifetime challenges that relate to their understanding of, and skills in mental health, sexuality, body care and physical safety, food and nutrition, physical activity, sport studies, and outdoor education.

Structure - How is Health and Physical Education structured?

Programmes of work will allow teachers and students to develop experiences that scaffold a student's learning. Explicit teaching and learning opportunities will allow students to build a depth of knowledge, skills, and understandings that are appropriate to the needs and abilities of student's and offer inclusive, challenging, and fun experiences.

School organisation - How do we carry out learning in Health and Physical Education?

Physical Education:

Physical activity may also involve using and caring for equipment and understanding how the body responds to physical activity. It may also identify ways we develop relationships and will involve thinking.

The application of physical activity involves participation in games, learning rules and demonstrating safe and fair play. It will also incorporate competition and embrace cultural and social practice. Physical activity will most certainly be a regular component in our lives.

Each term classes will be engaged in explicit physical education teaching and learning ensuring that time and resources are given to each of the aims embodied in physical education.

We will want our children to develop their physical prowess over time (levels 1 – 4) while managing themselves, learning to participate and contribute in physical activity, enjoying physical activity while interacting with others (relationships).

We will want our children to think creatively and critically whilst engaged in physical activity and we will want our children to express themselves physically (key competencies).

Health Education:

Students will be involved in inquiring into topics under transdisciplinary themes that will explore the ways in which the physical, mental and emotional, social, and spiritual dimensions of hauora contribute to mental health. Students will examine social, cultural, economic, and environmental factors that influence people's mental health, including the effects of media messages. Students will use critical-thinking and problem-solving skills to develop strategies and safety procedures for avoiding, minimising, or managing risk situations.

A supportive classroom environment is necessary for quality learning in mental health. In supportive classroom situations, students can acknowledge diverse points of view, accept a range of abilities, and show concern for one another. Teachers should use a range of teaching and learning strategies that encourage all students to participate fully in the programme.

Further aspects of learning in health education in relation to sexuality education, body care and physical safety, and food and nutrition will be delivered as programmes explicit in nature and scaffolded to promote learning that builds on aspects of those key areas of learning over a student's time at Ashburton Borough School.

Refer to 'Health and PE Programme of Work' for detailed years overview

Assessment - How do we assess and report on Health/PE outcomes?

In this essential learning area, the most valid assessment information will be obtained from actual learning experiences. Students should not be assessed on the values they hold. However, it is both useful and valid to assess the development of health-enhancing attitudes. When evaluating the programme, in particular, the development of students' attitudes will be an important factor to consider. Teachers will usually need to develop specific learning outcomes from the achievement objectives. When planning for assessment, teachers should ensure that the procedures they use enable them to assess and report on both individual student progress and overall student achievement. Reporting will provide information on achievement, personal qualities, social skills, special skills and interests that inform learning outcomes.

Ashburton Borough School ~ Social Science Programme

Rationale

Learning in the Social Sciences enables students to develop understandings of people, their actions and their activities, how societies operate and how to participate as confident, informed and responsible citizens.

- The social sciences programme will help students to
    - develop understandings of the unique nature of Aotearoa New Zealand's bicultural heritage and multicultural sociality
    - explore and clarify their own values and beliefs, while acknowledging and developing understanding of different values and beliefs of others
    - gain knowledge that is of genuine importance in themes that have significance for students of all cultures
    - gain an understanding of humankinds role in, and dependence on, the natural and constructed world, and learn to apply this knowledge in responsible ways. (integrate Enviro Ed concepts)
    - gain conceptual understanding through participating in learning experiences that foster sensitivity, creativity and initiative, leading to socially responsible action.

Structure - How are **Social Sciences** structured?

- **Social Sciences are structured around four conceptual strands:**
    - Identity, Culture and Organisation – understanding about society and communities and how they function.
    - Place and Environment – understanding relationships that exist between people and the environment.
    - Continuity and Change – understanding the past and present and imagining possible futures.
    - The Economic World – understanding how economic decisions affect individuals and communities.
- Objectives can be developed using the social inquiry approach.
- Contexts are from the past, present and future.
- Teachers will endeavor to;
    - **make connections** to students' lives
    - **align learning experiences** to important outcomes
    - **build and sustain** a learning community
    - **design experiences** that interest learners

School organisation - How do we carry out learning in the **Social Sciences**?

- Social Sciences are undertaken as part of the schools PYP based matrix in an integrated inquiry approach.
- Current events is a regular part of classroom practice, often integrated into literacy (news board)
- Teaching and learning will be based on the achievement objectives from the NZC incorporating objectives from the PYP framework.
- Teachers will also monitor student progress in the key competencies and transdisciplinary skills.

Assessment - How do we assess and report on the **Social Sciences**?

Assessment in the social sciences will take the form of;

- anecdotal observations (eg cooperative group work, key competencies)
- self and peer assessment (specific criteria / rubrics)
- student portfolios - examples of students work (Samples to include WALT, success criteria & rubric)
- assessment of book work (accuracy eg mapping)
- tests - where suitable (eg current events)
- On a rotational basis ABS will use NEMP (random selection of year 4 and 8 students) to inform / report on school achievement in the Social Sciences

Learning Area strands NZC	Incorporated PYP strands	*Students will understand;*	Transdisciplinary themes & Central ideas that integrate Social Science strands / objectives (2 year cycle)
Identity, Culture and Organisation	Social organisation and culture	• the ways in which individuals, groups and societies function and interact with each other.	Who we are (level 1) Families are a central part of our lives How we express ourselves (level 2) We use a variety of ways to communicate our ideas, feelings & beliefs How we organise ourselves (level 2) Communities organize themselves into leisure time activities for many reasons and in different ways. How we organise ourselves (level 2) Communities provide interconnected services to meet people's needs. Who we are (level 3) What we believe is a part of who we are How we express ourselves (level 3) Choices of role models reflect the characteristics that society's value. Who we are (level 3) It is our right to work together in healthy and productive ways. How we express ourselves (level 3) Symbols of popular culture are used to achieve status/ persuade others Who we are (level 4) Learning is fundamental to being human. How we express ourselves (level 4) People use many forms of expression to convey their uniqueness as human beings, individually and in groups
Place and Environment (How people perceive, represent, interpret and interact with places and environments.)	Resources and the environment	• how people adapt to and alter their environment • the impact of disasters on people and the built environment	Where we are in time & place (level 1) Forms of technology reflect changes in use and need over time Where we are in time & place (level 2) Maps help show us where we are in place and time Where we are in time & place (level 3) People have created visual representations of the earth for navigation.
	Human and natural environments	• how people allocate and manage resources • positive and negative effects of this management • the impact of technology on the environment	How we organise ourselves (level 1) Communities grow & change based on location & community needs How we share the planet (level 2) Supplies of some raw materials will get used up unless we find new ways to retrieve and/or conserve them Sustainability: Making the best possible use of resources. Importance of caring for the planet – guardianship - Kaitiakitanga How we share the planet (level 3) Our personal choices can have an impact on our environment. How we share the planet (level 4) Humans worldwide face a variety of challenges and risks
Continuity and Change	Continuity and change through time	• the relationships between people and events through time; the past – its influences on the present and it's implications for the future	Where we are in time & place (level 1) Places people live have their history and unique features. How we express ourselves (level 1) People recognise important events through celebrations and traditions. Where we are in time & place (level 2) Artefacts provide a window into our past How we express ourselves (level 2) Throughout time, people have told stories to explain natural phenomena and human behaviour. Where we are in time & place (level 3) Throughout time people have migrated and immigrated with effects on themselves, others and the environment. Where we are in time & place (level 4) Past and present civilisations are linked in many ways. Where we are in time & place (level 4) The development of global perspective is supported through understanding our place in the world in relation to others.
The Economic World	Human Systems and Economics Activities	• how and why people construct organizations and systems. • the way people participate in economic activities. (consumption, production, goods and services, financial literacy)	How we organise ourselves (level 1) Transport has many forms and functions How we organise ourselves (level 3) People organise the way they live & work together in a range of ways How the world works (level 3) People create and develop machines to do work. How we organise ourselves (L 3) Producing goods is a complex system involving people in different roles. How we organise ourselves (level 4) A community relies on people for it to succeed and be sustained How we organise ourselves (level 4) In most societies goods and services are produced on supply/demand
Current Events (using a range of methods – news, news board, NIE resources etc) will be integrated into the Social Sciences programme covering concepts from all strands.			

Key Concepts used to frame / structure a Social Science Inquiry

The following table provides sample teacher /student questions that illustrate the key concepts, which may help to structure or frame an inquiry. These examples demonstrate broad, open-ended questioning – requiring investigation, discussion, and a full and considered response – that is essential in an inquiry led programme.

Key Concepts	Social Science Perspective	Example of questions that illustrate the key concepts
FORM What is it like?	The recognizable features of individuals, groups, historical periods and environments.	• What kinds of work did people do? • What are the main occupations of people living in this town? • What is the landscape like?
FUNCTION How does it work?	The workings of the events, systems and relationships in societies and the natural world.	• What rules of behavior did people adopt? • How have people adapted to living here? • How do people celebrate? • What happens to waste?
CAUSATION Why is it like it is?	The causes and effects of human and natural events.	• What motivated individuals or groups to act the way they did? • What caused certain cultures to disappear? • In what ways have conflict and its resolution shaped the society?
CHANGE How is it changing?	The nature of human, societal and environmental change over time.	• Why did things change the way they did? • In what way does the built environment result from the natural environment? • What is the role of technology in shaping the society? • How has technology modified the natural environment?
CONNECTION How is it connected to other things?	The interactions that affect humans and the environment; the ways in which our past, present and future are all connected.	• What, if any connections exist between society then and society today? • When a connection between two or more peoples existed, how equitable and just was it? • How have natural disasters affected the lives of people? • What kids of beliefs, values and attitudes encourage connections with other people?
PERSPECTIVE What are the points of view?	The ways in which humans connect knowledge and experience that lead to diverse understanding.	• How do people decide on who they want as a leader? • Might this opinion be biased? Why? • Why do people have different points of view about preserving the environment? • What might my lifestyle be if I lived in another culture?
RESPONSIBILITY What is our responsibility	People's individual and collective responsibility towards themselves, groups and the environment.	• Why should we care about the past? • How can we act to prevent further damage to the natural environment? • What does it mean to be a world citizen? • What rights should children all over the world have? • How is conflict resolved?
REFLECTION How do we know?	The learning from this inquiry, and ways in which the learner can apply their new understanding.	• What makes one historical source better then another? • What stereotypes do we have about this place? • Which primary sources have we used to gather data? • How reliable are our own opinions and those of others?

Additional Trans-disciplinary skills opportunities in Social Sciences

- Formulate and ask questions about the past, the future, places and society
- Draw information from, and respond to, stories about the past from geographical and societal sources
- Use and analyze evidence from a variety of historical, geographical and societal sources
- Sequence in chronological order
- Orientate in relation to place and time
- Identify roles, rights and responsibilities in society
- Assess the accuracy, validity and possible bias of sources

Ashburton Borough School ~ Science Programme

Rationale

Learning in Science is fundamental to understanding the world in which we live and work.
Science in the New Zealand Curriculum, Ministry of Education 1997 (Making PYP Happen)
Science leads learners to an appreciation and awareness of the world as it is seen from a scientific viewpoint. Science encourages curiosity, creative, critical and metacognitive thinking. By developing an understanding of the world, Science enables learners to develop a sense of responsibility regarding the impact their actions have on themselves, others and the environment.

Aims of Science at ABS:

- to develop awe, wonder and engagement in our natural and physical world, and wider universe
- to develop scientific knowledge, skills and attitudes
- to develop a coherent understanding of the central ideas and concepts covered through the transdisciplinary themes
- to progress development in the key competences and transdisciplinary skills through authentic Scientific contexts

Structure - How is **Science** structured?

- The core strand, Nature of Science, is required learning for all students up to year 10. The other strands provide contexts for learning. Over the course of years 1–10, science programmes should include learning in all four context strands.
- **Nature of Science;** students develop the skills, attitudes, and values to build a foundation for understanding the world. Students learn what science is and how scientists work through this overarching strand.
    - **Living World;** students learn about living things and how they interact with each other and the environment. The emphasis is on the biology of New Zealand.
    - **Planet Earth and Beyond;** is based on the interconnecting systems and processes of the Earth, other parts of the solar system, and the universe beyond. Students also learn that Earth provides all the resources required to sustain life, except energy from the Sun, and that, as humans, we act as guardians of these finite resources.
    - **Physical World;** provides explanations for a wide range of physical phenomena, including *light, sound, heat, electricity, magnetism, waves, forces, and motion*, united by the concept of energy, which is transformed from one form to another without loss.
    - **Material World;** involves the study of matter and the changes it undergoes. Students learn about the composition and properties of matter, the changes it undergoes, and the energy involved.

School organisation - How do we carry out learning in **Science**?

- Science is undertaken as part of the schools PYP based matrix in an integrated inquiry approach.
- Students will be encouraged to investigate science by formulating their own questions, and undertaking research, experimentation, observation, and other means that will lead to formulating their own responses to the science concepts investigated.
- Teaching and learning will be based on the achievement objectives from the NZC incorporating objectives from the PYP framework. Teachers will also monitor student progress in the key competencies and transdisciplinary skills.
- In addition to the classroom Science Programme, some children in the middle and senior school will be offered the opportunity to undertaken extension in Science, through taking part in one or more of; the Science Challenge, (years 4-8) Science Badge scheme, LEARNZ.

Assessment - How do we assess and report on **Science**?

Assessment in science will take the form of;

- anecdotal observations (eg cooperative group work, key competencies)
- self and peer assessment (specific criteria / rubrics)
- student portfolios - examples of students work (Samples to include WALT, success criteria & rubric)
- assessment of book work
- On a rotational basis ABS will use NEMP (random selection of year 4 and 8 students) to inform / report on school achievement in Science

Learning Area strands NZC			Incorporated PYP strands	*Students will understand;*	Transdisciplinary themes & Central ideas that integrate Science strands / objectives (2 year cycle)
The Nature of Science **Enduring Understandings** ***Students will understand;*** what science is and how scientists work; that while scientific knowledge is durable, it is also constantly being revaluated in the light of new evidence; how scientific ideas are communicated; the links between scientific knowledge and everyday decisions and actions.	**The enduring understandings are pursued through the following major contexts in which scientific knowledge has developed.**	Living World	Living Things	• the characteristics, systems and behaviours of human and other animals, and of plants; the interactions and relationships between and among them and with their environment, the impact of humans on all forms of life.	How we share the planet (level 1) Plants are a life sustaining resource for us and for other living things. How we share the planet (level 1) We share the environment with animals Who we are (level 2) Living things in an eco system are interdependent and their survival depends on how we protect them. How we share the planet (level 2) Growing food has been a human activity for thousands of years and involves using our earth's precious resources. How the world works (level 3) Over time living things need to adapt in order to survive.
		Planet Earth and Beyond	Earth and Space	• planet earth and its position in the universe, particularly its relationship with the sun; the systems, distinctive features and natural phenomena that shape and identify the planet; (geosphere, hydrosphere, atmosphere, biosphere) the infinite and finite resources of the planet.	Where we are in time & place (L1) Places people live have their history & unique features. How we share the planet (level 2) Supplies of some raw materials will get used up unless we find new ways to retrieve and/or conserve them Sustainability: Making the best possible use of resources Importance of caring for the planet – guardianship - Kaitiakitanga How the world works (L2) Our activity is usually connected to the earths natural cycles. How we share the planet (level 3) Our personal choices can have an impact on our environment. How we share the planet (level 3) Water is essential to life and is a limited resource for many people How the world works (level 4) The fact that our world is an ever changing physical property influenced by minor and major events How we share the planet (level 4) Responsibility needs to be taken to address the impact humans have had on the environment. How we share the planet (level 4) Humans worldwide face a variety of challenges and risks
		Physical World	Forces and Energy	• about physical phenomena; including *light, sound, heat, electricity, magnetism, waves; energy*, its origins, storage and transfer, and the work it can do; the study of *forces;* the application of scientific understanding through inventions and machines.	How the world works (level 1) Water is a medium to explore changes in physical properties. How the world works (level 2) Sound and light are forms of energy How the world works (level 3) Simple Machines - People create and develop machines to do work. How the world works (level 3) Science Challenge How the world works (level 4) Science Challenge
		Material World	Materials and Matter	• The properties, behaviours and uses of materials, and the energy involved; both natural and human-made; the origins of human made materials and how they are manipulated to suit a purpose.	How the world works (level 1) Understanding the way materials behave and interact determines how people use them. How the world works (level 3) Science Challenge How the world works (level 4) Science Challenge Who we are (level 4) Complex factors contribute to the process of making decisions that have implications for ourselves and others.
The Nature of Science : **How the world works (level 4)** Careful scientific study is necessary to understand the world around us (all strands)					

Key Concepts used to frame / structure a Science Inquiry

The following table provides sample teacher /student questions that illustrate the key concepts, which may help to structure or frame an inquiry. These examples demonstrate broad, open-ended questioning – requiring investigation, discussion, and a full and considered response – that is essential in an inquiry led programme.

Key Concepts	Science Perspective	Example questions that illustrate the key concepts
FORM What is it like?	Most things have a form or shape with an outward or visible manifestation and an internal structure.	• What does it feel like? • Where do we get the food we eat? • If the earth were cut in half between the North Pole and the South Pole, what would it lock like on the inside?
FUNCTION How does it work?	The special activities, properties or purposes, natural or endowed, of a creature or thing.	• What can you use shadows for? • How do seeds fit into the growth cycle of plants? • How is air being used around us? • What do reservoirs and purification plants do?
CAUSATION Why is it like it is?	The effect brought about by an intended or unintended action or reaction.	• How can you make a shadow? • Why are different food processed in different ways? • How are houses around the world constructed to suit the local climate?
CHANGE How is it changing?	The concept of change, also described as transformation, is a pervasive concept in science. Change is an inevitable aspect of the physical world as things become different or pass from one form to another. It can be natural or brought about and accelerated by outside influences.	• How does the sand change from the morning to the afternoon? • What differences do you see in the growth of plants over time? • How do our bodies change when we exercise? • In what ways does air differ from place to place and over time?
CONNECTION How is it connected to other things?	The world is full of interacting systems that depend on each other to form a working whole.	• What link is there between the time of the day and the shadow your body makes? • How is the human life cycle the same as or different from that of other animals? • What are the similarities and difference between your local ecosystem and a larger ecosystem that you have researched?
PERSPECTIVE What are the points of view?	Events and findings can be interpreted differently, depending on knowledge, experience ands motives. The difference between empirically proven facts and supposition must be emphasized.	• Do plants (or animals) in the classroom need to be taken care of in the same way? Why? • What are the different points of view supported by the evidence? • How does science explain the existence of the Earth, solar system and galaxy? • What are the implications for humans?
RESPONSIBILITY What is our responsibility	We have a responsibility to the world in which we live. This involves being aware of how scientific knowledge can be used to improve or worsen the quality of life of all living things. Responsibility entails action as well as awareness.	• What things should we do to care for our classroom plants and animals? • How can we make sure we do not waste water? • What factors do you need to consider when designing an making a vehicle? • What should we do to remain healthy?
REFLECTION How do we know?	We must consciously reflect on, and be able to describe, how we gain our knowledge and develop our attitudes.	• What do you think happens to your body during exercise and after exercise? • How has space exploration influenced our daily lives? • In what ways can we observe that our bodies are using air?

Additional Trans-disciplinary skills opportunities in Science

- Observer carefully in order to gather data
- Use a variety of instruments and tools to measure data accurately
- Use scientific vocabulary to explain their observations and experiences
- Identify or generate s question or problem to be explored
- Plan and carry out systematic investigations, manipulating variables as necessary
- Make predictions and hypotheses
- Interpret and evaluate data gathered in order to draw conclusions
- Consider scientific models and applications (including their limitations)
- Become confident and competent users of ICT in science learning

Ashburton Borough School ~ Technology Programme

Rationale

The aim of technology education in New Zealand is to develop students' technological literacy. Technology is described in *The New Zealand Curriculum* (2007) as intervention by design: the use of practical and intellectual resources to develop products and systems (technological outcomes) that expand human possibilities by addressing needs and realising opportunities. Adaptation and innovation are at the heart of technological practice. Quality outcomes result from thinking and practices that are informed, critical, and creative.

ABS has a responsibility to provide and promote experiences for children to learn more about the technological world they live in. We aim for students to develop technological literacy that will provide them with the skills to participate in society as informed citizens and give them access to technology-related careers. ABS aims to extend students key competences through technological learning, developing models, products, and systems.

Structure - How is **Technology** structured?

The learning area is made up of three strands:

- The **Technological Practice** strand enables students to undertake their own technological practice within a particular setting and to reflect on the technological practice of others.
  Objectives - Planning for Practice, Brief Development, and Outcome Development and Evaluation.
- Through the **Technological Knowledge** strand, students develop knowledge particular to technological enterprises and environments and understandings of how and why things work.
  Objectives - Characteristics of Technology and Characteristics of Technological Outcomes.
- Through the **Nature of Technology** strand, students develop an understanding of technology as a discipline and of how it differs from other disciplines.
  Objectives - Technological Modelling, Technological Products and Technological Systems.

Technological areas include *structure, control, food, ICT's and biotechnology*. Valuable contexts can be developed when these areas are integrated. These areas reflect the communities of technological practice that exist within the technology sector.

Knowledge and skills are best learnt in context. Students should be encouraged to access relevant knowledge and skills from other learning areas while undertaking technological tasks.

School organisation - How do we carry out learning in **Technology**?

- Technology is undertaken as part of the schools PYP based matrix in an integrated inquiry approach for years 1-6.
- Year 7/8 students learn technology through the technology centre and will also cover aspects of technology as part of the schools PYP based matrix in an integrated inquiry approach.

Assessment - How do we assess and report on **technology**?

Assessment in Technology will take the form of;

- anecdotal observations (eg cooperative group work, key competencies)
- self and peer assessment (specific criteria / rubrics)
- student portfolios - examples of students work (Samples to include WALT, success criteria & rubric) – include photos of finished technology products
- assessment of book work
- year 7/8 students learning at the Technology Centre will be assessed, based on anecdotal observations and assessments of technological solutions produced, and reported to class teachers and parents

Learning Area strands NZC	***Students will understand;***	Tech Areas	**Transdisciplinary themes & Central ideas that integrate Technology strands / objectives (2 year cycle)**
Technological Practice	• how to develop a technological outcome, including concepts, plans, briefs, technological models and products. • Ethics, legal requirements, protocols, codes of practice the needs of and potential impacts on, stakeholders and the environment.	**Possible integrated contexts for technology learning** Structural, Control, Food, ICT, Biotechnology	Inquiries cover two or more of the technology strands and are also integrated into other curriculum areas. (Inquires are duplicated in each curriculum area to track coverage.) **Level 1** Where we are in time & place Forms of technology reflect changes in use and need over time How the world works Water is a medium to explore changes in physical properties. How the world works Understanding the way materials behave and interact determines how people use them. How we share the planet We share the environment with animals **Level 2** How we express ourselves We use a variety of ways to communicate our ideas, feelings and beliefs Who we are Living things in an eco system are interdependent and their survival depends on how we protect them. How we share the planet Growing food has been a human activity for thousands of years and involves using our earth's precious resources. **Level 3** How the world works Over time living things need to adapt in order to survive. How we share the planet Our personal choices can have an impact on our environment How the world works People create and develop machines to do work. How we organise ourselves Production of goods is a complex system involving people in different roles. How we share the planet Water is essential to life and is a limited resource for many people **Level 4** Where we are in time & place Past and present civilisations are linked in many ways. How the world works Careful scientific study is necessary to understand the world around us How we organise ourselves In most societies goods and services are produced on a supply and demand basis.
Technological Knowledge	• knowledge particular to technological enterprises and environments and understandings of how and why things work. • how prototyping is used to evaluate design ideas and how prototyping is used to evaluate the fitness and purpose of systems and products as they are developed. • about materials properties and uses • about parts of a systems and these work together		
Nature of Technology	• About technology as a discipline. • How to critique the impact of technology on societies and the environment and to explore how developments and outcomes are valued by different peoples in different times. • The socially embedded nature of technology and become able to engage with current and historical issues and to explore further scenarios.		

Ashburton Borough School ~ Education for Sustainability

Rationale

Learning through Education for Sustainability enables students to learn how to respect others and care for the environment. Through Inquiry studies, Social Sciences, the Arts students will learn to think globally but act locally to solve environmental issues.

- The Education for Sustainability programme will help students to
    - develop understandings of the unique nature of Aotearoa New Zealand
    - explore and clarify their own values and beliefs, while acknowledging and developing understanding the different values and beliefs of others
    - gain knowledge that is of genuine importance in themes that have significance for students of all cultures
    - gain an understanding of humankinds role in, and dependence on, the natural world and learn to apply this knowledge in responsible ways. (integrate Enviro Ed concepts)
    - gain conceptual understanding through participating in learning experiences that foster sustainability and biodiversity leading to socially responsible action.
    - Understand a Maori perspective

Structure - How is **Education for Sustainability structured**?

- **Education for Sustainability is structured around four conceptual strands:**
    - Sustainability-using resources wisely, sharing resources understanding all things rely on each other, maintaining natures balance, sharing with others why we should be sustainable
    - Biodiversity-variety of life
    - Interdependence-.relationships between all living things and their environment
    - Social responsibility-taking positive action to solve environmental problems while recognizing Maori culture and traditions
- Objectives can be developed using a social inquiry approach, specializing in Education for Sustainability or including an Education for Sustainability dimension in other subject areas.
- Contexts will evolve around Inquiry studies or local environmental issues.

- **Teachers will endeavor to;**
    - **make learning meaningful and relevant**
    - encourage students to acquire values ie to show empathy, to show respect, to be risk takers, to be open minded, to care for others
    - involve the local community where applicable ie Forest and Bird, ADC, Wastebusters, Farm and Forestry, DOC, Fish and Game, Federated Farmers
    - Encourage students to lead learning eg Enviro Expos, the Enviro Team, seniors helping juniors, Ako-students teaching others eg Maori language over the school notices
    -

School organisation - How do we carry out learning in **Education for Sustainability**?

- Education for Sustainability is undertaken as part of the schools PYP based matrix in an integrated inquiry approach.
- Current events is a regular part of classroom practice, often integrated into literacy (news board)
- The Borough Greenies meet regularly to help provide whole school opportunities to solve school based and community environmental issues that have been identified by students, teachers, parents and members of our community. (An enviro vision has been created to bring issues to students attention)
- Wastebusters bring programmes of work focused on enviro practices into Ashburton Borough eg Rubbish classification, Paper recycling, composting worm farming, Advanced recycling, as part of inquires
- Values are fostered-through caring for the school environment ie kaitiakitanga
- Students will learn to show empathy as they share learning experiences world wide ie through UNESCO, through the Enviro wiki site.
- Teaching and learning will be based on the achievement objectives from the NZC incorporating objectives from the PYP framework. Teachers will also monitor student progress in the key competencies and transdisciplinary skills.

Assessment - How do we assess and report on Education for Sustainability?

Assessment in Ed for Sustainability will take the form of;

- anecdotal observations (eg cooperative group work, key competencies)
- self and peer assessment (specific criteria / rubrics)
- student portfolios - examples of students work (Samples to include WALT, success criteria & rubric)
- assessment of book work (accuracy eg identification of native plants)
- Student self evaluation
- IT photos/videos/slide show productions of students taking action to show the transfer of learning on and off site in authentic enviro ed learning contexts

Green Gold Statement

Embedded, integrated, sustained, instinctive, effective, empowered, deep, critical, visionary, courageous…

Ashburton Borough School has come a long way on its sustainability journey over the past 8 years. This has seen us develop and evolve our enviro belief and vision. The guiding principles: learning for sustainability; empowered students; sustainable communities; Māori perspectives; respect for the diversity of people and cultures are woven into all aspects of school life. We understand that all living things rely on each other and we must do all that we can to maintain nature's balance, sharing with others why we should be sustainable. Students know their ideas are valued and that their choices and actions contribute to a more sustainable world. The enviro group is a leading force within the school.

There is a strong sense of connection amongst Borough staff and students to the school environment local area and greater Canterbury.
The environment at school is changing as students design and create new areas. Our native garden, Mara Ataahua is an example of this and is well utilised.
The diversity of plants and animals has increased as new habitats have been created. Our edible organic gardens are enjoyed and soon our orchard trees will be bearing increasing fruit.

The differences we are making are an inspiration to others in our community eg Waste minimisation, education of parents re: sustainable practices, students taking action to solve local environmental issues. The strongly established links with local environmental organisations and businesses have helped us to achieve this. We reflect on our progress, celebrate with the community and look for new ways to grow knowing that there is always more to achieve. We are continually building our relationships with the newly formed Ashburton Marae. Our kapahaka group is building in numbers and confidence.
Knowing the history of our area enriches our learning and influences how we look to the future.
The multicultural nature of our school is celebrated and adds richness to our daily lives. As global citizens we value diversity and are aware of the importance of our place in the world and the impact we have on it. We continually strive for environmental sustainability.

(John Hooper, Kate Wills, Jan Church, Sarah Greenslade, Hilary Iles, Frances Redmond, Lachie Davidson. Nov 09)

Ashburton Borough School ~ Learning Languages

Rationale

The New Zealand Curriculum provides schools with the overall framework and direction for planning and makes it clear that all schools are expected to provide their students with opportunities to learn te reo Māori. Research shows that the opportunity to learn an additional language has many cultural, social, cognitive, linguistic, economic, and personal benefits for students.

The curriculum acknowledges the principles of the Treaty of Waitangi and the bicultural foundations of Aotearoa New Zealand. All students have the opportunity to acquire knowledge of te reo Māori me ōna tikanga.
Learning a new language provides a means of communicating with people from another culture and exploring one's own personal world.

Structure - How is Learning Languages structured?

The Māori Curriculum Guidelines, Te Aho Arataki Marau mō te Ako I Te Reo Māori- Kur Auraki: Curriculum Guidelines for teaching and Learning Te Reo Māori in English-medium Schools Years 1-13, establishes achievement objectives and a programme framework across the 8 levels of the national curriculum, building towards fluency in te reo Māori.

In the core **Communication** strand, students learn to use the language to make meaning. As their linguistic and cultural knowledge increases, they become more effective communicators, developing the receptive skills of listening, reading, and viewing and the productive skills of speaking, writing, and presenting or performing.

In the supporting **Language Knowledge** strand, students study the language in order to understand how it works. They learn about the relationships between different words and different structures, how speakers adjust their language when negotiating meaning in different contexts and for different purposes, and how different types of text are organised. This strand helps students to develop explicit knowledge of the language, which will, over time, contribute to greater accuracy of use.

In the supporting **Cultural Knowledge** strand, students learn about culture and the interrelationship between culture and language. They grow in confidence as they learn to recognise different elements of the belief systems of speakers of the target language. They become increasingly aware of the ways in which these systems are expressed through language and cultural practices. As they compare and contrast different beliefs and cultural practices, including their own, they understand more about themselves and become more understanding of others.

School organisation - How do we carry out learning in Learning Languages?

Te reo is integrated into classroom programs and at year 7/8 a second language is taught.
For each area, students need specific help from their teachers as they learn:

- the specialist vocabulary associated with that area
- how to read and understand its texts
- how to communicate knowledge and ideas in appropriate ways
- how to listen and read critically, assessing the value of what they hear and read.

By learning te reo Māori, students are able to:

- participate with understanding and confidence in situations where te reo and tikanga Māori predominate
- integrate language and cultural understandings into their lives
- strengthen Aotearoa New Zealand's identity in the world

Assessment - How do we assess and report on progress in Learning Languages?

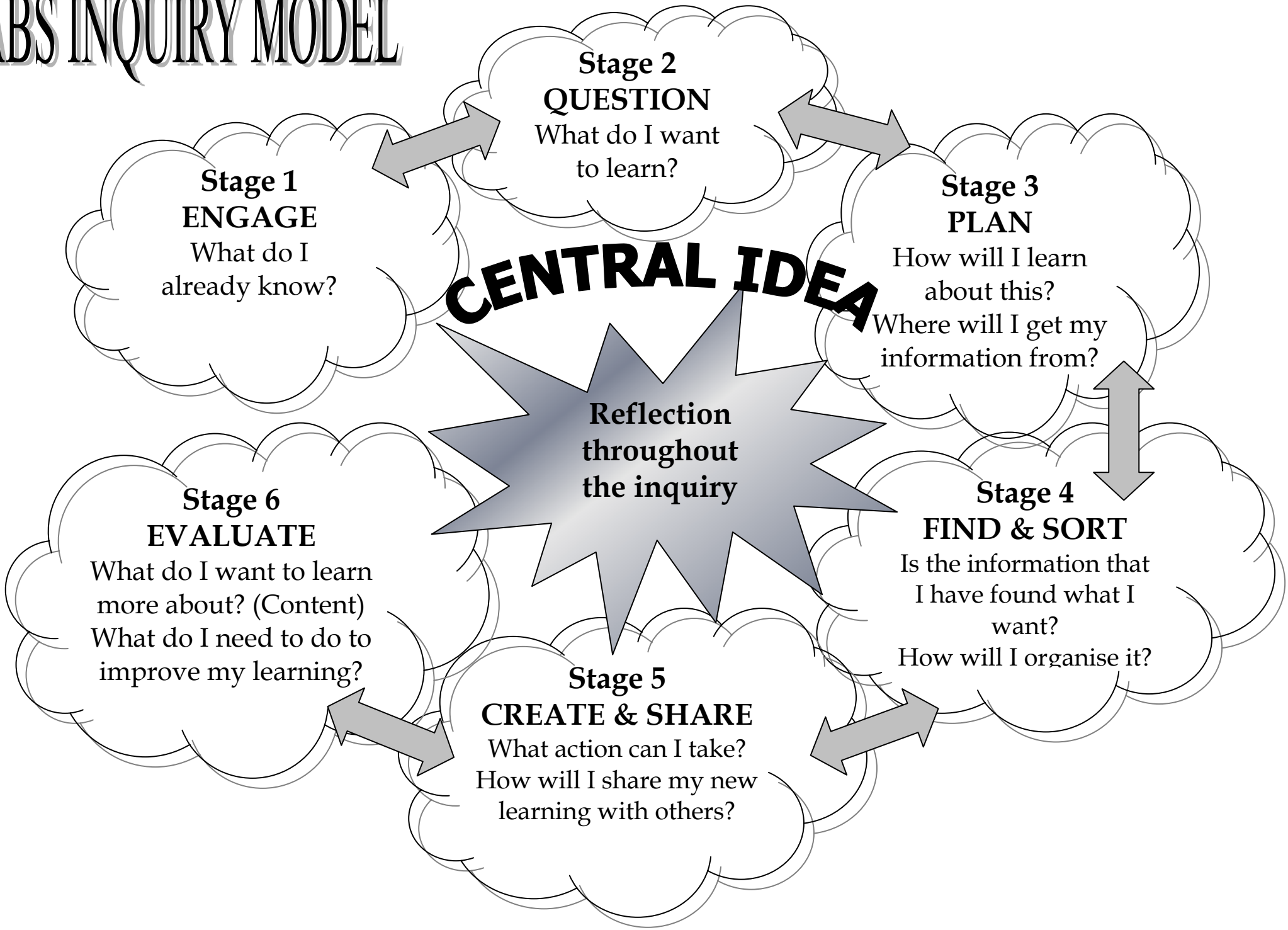
Assessment in Maori and Spanish will take the form of;

- anecdotal observations (eg cooperative group work, key competencies)
- self and peer assessment (specific criteria / rubrics)
- student portfolios - examples of students work (Samples to include WALT, success criteria & rubric)
- assessment of book work
- tests (where suitable to include oral, visual and written forms of language)

Teachers can track coverage using the Teacher Assessment Checklists. These Checklists line up with the objectives from the Curriculum Guidelines. Student achievement will be monitored against the objectives described above.

Self Assessment Checklists have been created for students to use to track their achievements and set goals for the next learning steps. The self assessment sheet will be used in assessment folders. This can be used to inform / report on school achievement in Learning Languages.

ABS INQUIRY MODEL



ABS INQUIRY MODEL ~ Purpose, Skills and Strategies, and ICT tools

	ENGAGE	QUESTION	PLAN	FIND & SORT	CREATE & SHARE	EVALUATE
PURPOSE	To focus, motivate and capture children's interest. To find out their prior knowledge and hook them in.	Children form questions about what they now want to know.	To structure the inquiry, give direction, keywords, timeframe. Set the children up for success.	To get the information, sift and sort, to make sure the information answers the questions.	To present new learning & demonstrate new understanding to an audience. Take an action if purposeful.	To evaluate the inquiry process. Have we achieved what we set out to do? Set goals for next time.
SKILLS & STRATEGIES	• Listening • Discussing • Brainstorming • Observing • Experiencing • Viewing • Questioning • Thinking • Responding • Recalling • Reading • Experimenting • Risk taking • Sharing • Reflecting	• Fat & skinny questions • Big questions • Supporting questions • Blooms • Open/closed • 5W's & H. • Inferential • Identifying difference between statements and questions, opinions and facts • Question matrix • Grouping, eliminating & refining questions • Reflecting • Letters • Blooms • Book resources • People	• timeline • time management • using checklists • daily plan • reflection • grouping • assigning roles • brainstorming • discussion • Flow charts • Setting goals • Scaffolding • Modeling • Prioritising • Organization • Determining an authentic action • Mind map • Communication skills/ etiquette • Reflecting • 6 hats • PMI	• Note taking • Reading for info • Interviewing • Skimming & scanning • Selecting • Categorizing • Keywords • Research skills • Library skills (index, contents page, glossary, Dewey system) • Search engine skills • Assessing validity of resources/ net sites • Observing • Listening • Questioning • Discussing • Thinking 6 Hats, PMI • Prioritising • Summarizing • Reflecting • Collating	• Communicating • Report writing/recounts • Persuading • Informing • Sharing • Reporting • Making and creating • Oral reports • Selecting styles • Summarizing • Design • Develop an action: doing something purposeful • Blooms • Visual art • Enterprise • Drama/ music/ role plays • Proofreading, editing • Use OWN words	• Reflect • Self/Peer assessing (CRC) • Critical and constructive analysis • Setting goals • Feedback/ feed forward • Responding to feedback • KWL • Success criteria • Reflective journals • Learning logs • Blooms • SWOT (Strengths, weaknesses, opportunities & threats) • Active, engaged listening • Experiential learning model • Thinking keys • PMI • 6 Hats

ICT TOOLS	• Video • Digital camera Record Class trips • Video conferencing • Power point • Visual aids • Graphic organizers • Inspiration • You tube • Flickr	• Inspiration • Polyphone / conferencing • Fax, email • Survey • Picasa (photo editing)	• Inspiration • Checklists • Graphic organizers	• Internet blogs, wikispaces, websites • Encarta • CDROMs • Videos • Emails • Class trip • Phone, fax • Skype • Photocopier • Photos • Graphic organizers • Cameras	Publish / present via • Powerpoint • Movie • Kidpix • Inspiration • Word • Publisher • Photostory • Comic life • OHP • Website, blogs, wiki • Data projector • Recording o Role play o Dance o Music o Discussion o Speech	• Rubrics • Evaluate through recordings

Ashburton Borough School Inquiry Rubric

	Phase 1	Phase 2	Phase 3	Phase 4
Engage	We are going to… ▪ Ask questions about the central idea ▪ Share information we already know ▪ Find out as much new information as we can We will do this by… Discussing, brainstorming, reading, listening, viewing, experimenting, and investigating			
Question	I can… ▪ Tell the difference between a question and a statement ▪ Ask a question using the 6W's and H's ▪ Begin to use De Bono's 6 thinking hats	I can… ▪ Ask an open and closed question ▪ Ask questions using some of the 6W's and H's ▪ Use De Bono's 6 thinking hats	I can… ▪ Can identify and use open and closed questions that are worthy of looking into ▪ Ask higher level questions e.g. the 6W's and H's ▪ Competently use De Bono's 6 thinking hats	I can… ▪ Form a question worthy of inquiry and form supporting questions ▪ Use a variety of questioning skills to ask higher level questions e.g. Bloom's Taxonomy, six thinking hats
	Reflection: ▪ What do I think I will find out? ▪ What do I need to do next?			
Plan	I can… ▪ Suggest where to source information ▪ Suggest ways to record my information ▪ Set a timeline with teacher guidance	I can… ▪ Identify and choose some sources of information ▪ Begin to use appropriate methods for recording my information ▪ Set a timeline with teacher guidance	I can… ▪ Identify and select two or more sources of information ▪ Select and use appropriate methods for recording my information ▪ Suggest a time frame and sequence with teacher guidance	I can… ▪ Identify and justify multiple sources of information ▪ Select and use appropriate methods for recording my information ▪ Prioritise tasks and manage my time effectively
	Reflection: ▪ What progress have I made? ▪ Is this manageable for me? ▪ Is there a skill I need help with?			

Find & Sort	**Research Skills** I can… ▪ Recognise key ideas ▪ Record useful information through drawings and simple sentences **People** I can… ▪ Ask questions and listen for information **Library** I can… ▪ Tell the difference between a fact and fiction book ▪ Identify the title and subject of books ▪ Begin to use the contents and index page **Internet** I can… ▪ View information found on the internet ▪ Gather information (images, key word, images with help) **Multimedia** I can… ▪ Begin to use a digital camera to capture images ▪ Begin to use email, telephone, fax and photocopier with assistance	**Research Skills** I can… ▪ Recognise and use key words ▪ Record useful information by a variety of methods e.g. drawing, writing **People** I can… ▪ Ask relevant questions and respond **Library** I can… ▪ Understand and begin to use the different sections of the library ▪ Begin to select books that answer my questions and reject books that do not answer my questions ▪ Use the contents & index page **Internet** I can… ▪ Begin to use the key words to search teacher selected sites ▪ Sort the information to see if it answers my questions **Multimedia** I can… ▪ Use a digital and video camera to capture images ▪ Use email, telephone, fax and photocopier	**Research Skills** I can… ▪ Summarise key ideas and put them into our own words ▪ Record & organise information **People** I can… ▪ Access information from people using a variety of tools **Library** I can… ▪ Start to use a variety of methods to locate information e.g. OPAC, Dewey System, Journal Surf ▪ Select books that answer my questions and reject books that do not answer my questions ▪ Use content, index and glossary with confidence **Internet** I can… ▪ Use key words and begin to use modifiers to search sites on the internet ▪ Select and use the information that answers my question **Multimedia** I can… ▪ Confidently use digital technology.	**Research Skills** I can independently… ▪ Use sources to locate, find and gather information ▪ Select, analyse and categories key ideas ▪ Filter the information to see if it answers my questions

	Reflection: ▪ Does the information I've found answer my questions? ▪ Were my questions relevant? Do I need to revise my questions? ▪ Have I found and used some new information? ▪ Is there a skill I need help with? ▪ What do I need to do next?			
Create& Share	I can… ▪ Contribute to a presentation to show my new learning ▪ Share my new learning information with an audience ▪ Respond appropriately to feedback	I can… ▪ Select the most effective mode of presentation from limited options ▪ Share my new leaning or information with an audience ▪ Ask for feedback and respond appropriately	I can… ▪ Select the most effective mode of presentation from a range of options ▪ Combine a variety of verbal and visual features to effectively communicate information and ideas ▪ Help identify an appropriate audience to share my new information with, and begin to justify my choice ▪ Ask for feedback and respond appropriately e.g. Commend, Recommend, Commend	I can… ▪ Independently select the most effective mode of presentation ▪ Independently identify an appropriate audience to share my new information with and justify my choice ▪ Ask for feedback and respond appropriately
Evaluate	**I will…** ▪ evaluate my new learning using a range of thinking tools and organisers ▪ reflect on the impact of my inquiry on myself and my chosen audience **How…** ▪ can I put what I have learnt into action? **What…** ▪ am I most proud of? ▪ new skills have I developed? ▪ could I improve on next time? ▪ further questions do I have?			