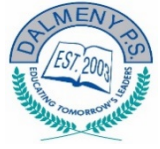


Dalmeny Public School

SCIENCE and TECHNOLOGY POLICY



1. POLICY STATEMENT

- 1.1 Science and Technology K–6 is an integrated discipline that fosters in students a sense of wonder and curiosity about the world around them and how it works. Science and Technology K–6 encourages students to embrace new concepts, the unexpected and to learn through trialing, testing and refining ideas.

The study of science and technology develops the building blocks of inquiry and students' abilities to solve problems. Students are encouraged to question and seek solutions to problems through collaboration, investigation, critical thinking and creative problem-solving

The learning students experience enables them to contribute to the world as active global citizens both now and in the future. (Science and Technology, K-10 Syllabus, NSW Education Standards Authority)

The study of Science and Technology in K–6 enables students to explore scientific and technological concepts and develop knowledge and understanding of the world; enabling them to inquire, plan, investigate and develop solutions to problems. Through the application of Working Scientifically, and Design and Production skills, students develop an interest in and an enthusiasm for understanding nature, phenomena and the built environment.

(Science and Technology, K-10 Syllabus, NSW Education Standards Authority)

- 1.2 Planning for Science and Technology teaching and learning and assessment meet NSW Department of Education Policy Standards.

- 1.3 Assessment and evaluation are integral components of all Science and Technology programs.

Students are:

- provided with opportunities to demonstrate the achievement of outcomes for their relevant stage of learning.
- engaged in relevant and reliable assessment strategies.
- assessed using valid data.
- provided with tasks that are time efficient and manageable.
- participate in a variety of activities to determine student achievement.
- engaged in work that is based on data which guides ongoing teaching and learning.
- monitored and evaluated as they progress through the syllabus.
- provided with reports in accord with school requirements and departmental and government policy.

- 1.4 Reports to parents on student achievement are provided in teacher and parent interviews and formal written reports at the end of semester one and semester two.

Outcomes and intended assessment strategies are outlined in all programs K – 6.

All students are provided with access to the Science and Technology syllabus.

2.1 This policy applies to all Dalmeny Public School staff, students and parents.

Page 1

3. CONTEXT

3.1 The Science and Technology Policy provides greater clarity in response to the delivery of a key learning area syllabus, assessment and reporting to parents.

RESPONSIBILITIES and DELEGATIONS

4.1 Dalmeny Public School Principal and School Executive will:

- ensure the currency of the Science and Technology policy and support material
- provide oversight of the policy and implementation including advice and assistance to staff
- notify staff of changes to the policy.

5. MONITORING, EVALUATION and REPORTING

5.1 The principal, school executive and delegated teachers will:

- supervise policy implementation and report evaluations to the Director of Educational Learning NSW Public School

5.2 Director of Educational Learning for Glenfield Public Schools NSW will:

- monitor and support the implementation of the policy at Dalmeny Public School and report to Metropolitan North executive director.

5.3. Executive Directors will:

- collect information to inform the Directors, Early Learning and Primary Education and Secondary Education and for evaluation of the policy.

5.4. The Directors, Early Learning and Primary Education, and Secondary Education will:

- monitor the implementation of this policy and will report annually, or as required, to the Executive Director, Learning and Teaching.

Policy Date: 9th September 2019

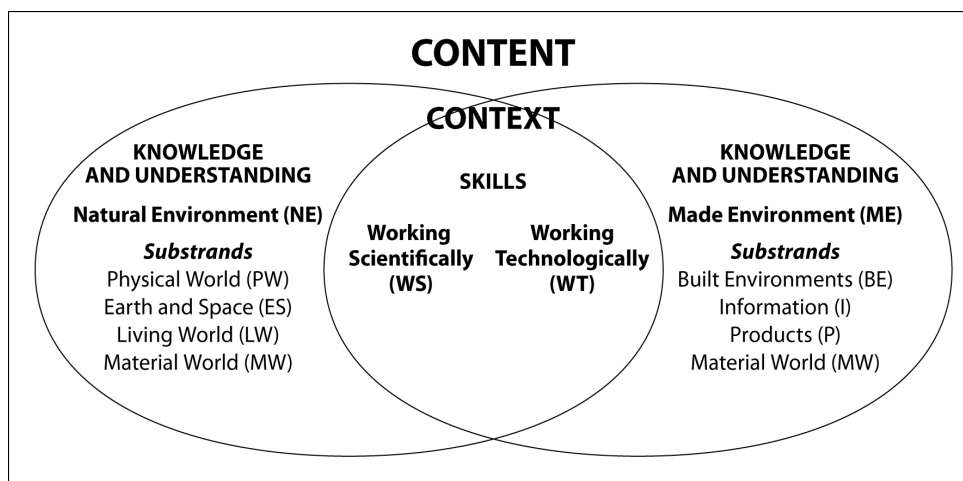
Date for review: May 2021 or as required

Page 2

SCIENCE and TECHNOLOGY

The Science and Technology K–6 syllabus content is organised into Stages from Early Stage 1 to Stage 3. The outcomes are presented as:

- **Skills:**
 - Working Scientifically (WS)
 - Working Technologically (WT)
- **Knowledge and Understanding:**
 - Natural Environment (NE)
 - Made Environment (ME).



**OUTCOMES
SKILLS**

<p>Objectives</p> <p>Students develop and apply skills in:</p> <ul style="list-style-type: none"> • scientific inquiry through the process of working scientifically • design and production processes in the development of solutions • design and production of digital solutions 			
<p>Early Stage 1 outcomes</p> <p>A student:</p>	<p>Stage 1 outcomes</p> <p>A student:</p>	<p>Stage 2 outcomes</p> <p>A student:</p>	<p>Stage 3 outcomes</p> <p>A student:</p>
<p>STe-1WS-S</p> <p>observes, questions and collects data to communicate ideas</p>	<p>ST1-1WS-S</p> <p>observes, questions and collects data to communicate and compare ideas</p>	<p>ST2-1WS-S</p> <p>questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations</p>	<p>ST3-1WS-S</p> <p>plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions</p>
<p>STe-2DP-T</p> <p>develops solutions to an identified need</p>	<p>ST1-2DP-T</p> <p>uses materials, tools and equipment to develop solutions for a need or opportunity</p>	<p>ST2-2DP-T</p> <p>selects and uses materials, tools and equipment to develop solutions for a need or opportunity</p>	<p>ST3-2DP-T</p> <p>plans and uses materials, tools and equipment to develop solutions for a need or opportunity</p>

KNOWLEDGE and UNDERSTANDING

Objectives			
Students develop knowledge and understanding of: <ul style="list-style-type: none"> the natural world including living things, materials, forces, energy, and Earth and space the built environment including engineering principles and systems, food and fibre production, and material technologies digital technologies including digital systems and how digital technologies represent data 			
Early Stage 1 outcomes A student:	Stage 1 outcomes A student:	Stage 2 outcomes A student:	Stage 3 outcomes A student:
STe-3LW-ST explores the characteristics, needs and uses of living things	ST1-4LW-S describes observable features of living things and their environments	ST2-4LW-S compares features and characteristics of living and non-living things	ST3-4LW-S examines how the environment affects the growth, survival and adaptation of living things
	ST1-5LW-T identifies how plants and animals are used for food and fibre products	ST2-5LW-T describes how agricultural processes are used to grow plants and raise animals for food, clothing and shelter	ST3-5LW-T explains how food and fibre are produced sustainably in managed environments for health and nutrition
STe-4MW-ST identifies that objects are made of materials that have observable properties	ST1-6MW-S identifies that materials can be changed or combined	ST2-6MW-S describes how adding or removing heat causes a change of state	ST3-6MW-S explains the effect of heat on the properties and behaviour of materials
	ST1-7MW-T describes how the properties of materials determine their use	ST2-7MW-T investigates the suitability of natural and processed materials for a range of purposes	ST3-7MW-T explains how the properties of materials determines their use for a range of purposes
STe-5PW-ST observes the way objects move and relates changes in motion to push and pull forces	ST1-8PW-S describes common forms of energy and explores some characteristics of sound energy	ST2-8PW-ST describes the characteristics and effects of common forms of energy, such as light and heat	ST3-8PW-ST explains how energy is transformed from one form to another
	ST1-9PW-ST investigates how forces and energy are used in products	ST2-9PW-ST describes how contact and non-contact forces affect an object's motion	ST3-9PW-ST investigates the effects of increasing or decreasing the strength of a specific contact or non-contact force
STe-6ES-S identifies how daily and seasonal changes in the environment affect humans and other living things	ST1-10ES-S recognises observable changes occurring in the sky and on the land and identifies Earth's resources	ST2-10ES-S investigates regular changes caused by interactions between the Earth and the Sun, and changes to the Earth's surface	ST3-10ES-S explains regular events in the solar system and geological events on the Earth's surface
STe-7DI-T identifies digital systems and explores how instructions are used to control digital devices	ST1-11DI-T identifies the components of digital systems and explores how data is represented	ST2-11DI-T describes how digital systems represent and transmit data	ST3-11DI-T explains how digital systems represent data, connect together to form networks and transmit data

Values and Attitudes

Students:

- value the importance and contribution of science and technology in developing solutions for current and future personal, social and global issues and in shaping a sustainable future
- appreciate the importance of using evidence and reason to engage with and respond to scientific and technological ideas as informed, reflective citizens
- value developing solutions to problems and meeting challenges through the application of Working Scientifically, and Design and Production skills.

Working Scientifically

The skills of Working Scientifically are at the core of inquiry and are developed by conducting practical investigations and research in Science and Technology. When investigating, opportunities are to be provided for students to engage with all of the Working Scientifically skills of:

- Questioning and predicting
- Planning and conducting investigations
- Processing and analysing data and
- Communicating

Design and Production

Design and Production skills are based on aspects of design thinking, and design and production processes. The practical nature of Design and Production engages students in critical and creative thinking, including understanding interrelationships between systems as they solve complex problems through:

- identifying and defining
- researching and planning, producing and implementing
- producing and implementing and
- testing and evaluating

Thinking Skills

Productive, purposeful and intentional thinking underpins effective learning in Science and Technology. Students are provided with opportunities to apply:

- **computational thinking** (organising data logically, breaking down problems into parts, interpreting patterns and design and implementing algorithms to solve problems).
- **design thinking** (where a need or opportunity is identified and a design solution is developed with consideration to environmental, economic and social factors)
- **scientific thinking** (raising questions and problems, observing and gathering data, drawing conclusions based on evidence, testing conclusions, thinking with an open mind and the communication of findings)
- **systems thinking** (recognising the connectedness of, and interactions between phenomena, people, places and events in local and wider contexts and considering the impact of decisions).

There are five content strands in Science and Technology K–6 that form the continuum of learning.

Content Strand	Summaries
1. Living World	The Living World strand explores living things and their needs. <ul style="list-style-type: none"> • Living things have similar characteristics; are interdependent and interact with each other and their environment. • Living things and their features are related to the environments in which they live.
2. Material World	The Material World strand explores the characteristics and observable properties of substances and materials. Students explore how materials can be changed and combined. They explore change of state and investigate how chemicals can be combined and separated.
3. Physical World	The Physical World strand explores the physical characteristics of objects and how this affects their movement. Light, sound and heat are identified as forms of energy that may be transferred and transformed, and explore the difference between contact and non-contact forces.
4. Earth and Space	The Earth and Space strand explores the Earth's dynamic structure and its place in the universe. Students explore changes on Earth, such as day and night, and the seasons related to Earth's rotation and its orbit around the Sun.
5. Digital Technologies	The Digital Technologies strand provides students with opportunities to investigate existing technologies and create digital solutions. Concepts explored are: <ul style="list-style-type: none"> • computer science. • information systems • software engineering and • project management.

SCOPE AND SEQUENCE

EARLY STAGE 1

	Unit name	Unit overview	Outcomes
Term 1 10 weeks 15 Hours	Physical World	Through the context of an excursion to a farm, students explore to find answers to questions about where foods come from. They investigate the materials used to package foods.	STe-3VA, STe-4WS, STe-5WT, STe-8NE, STe-10ME
Term 2 10 weeks 15 Hours	Material World	Students design and make an object suitable for their school environment, having explored the ways objects, products, places and spaces have properties that suit their purpose.	STe-3VA, STe-4WS, STe-5WT STe-9ME, STe 10ME
Term 3 10 weeks 15 Hours	Living World	Students investigate ways daily and seasonal changes in our environment affect everyday life.	STe-2VA, STe-4WS STe-7NE, STe 9ME
	Working Scientifically	Students conduct a variety of experiments, make and record observations.	STe-1WS-s
Term 4 10 weeks	Earth and Space	Using the context of ball games, students explore the fact that the way objects move depends on a variety of factors.	STe-1VA, STe-4WS, STe-5WT, STe-6NE

15 Hours	Digital Technologies	Students develop solutions to an identified need and identify digital systems and explore how instructions are used to control digital devices.	STe-2DP-T STe-7DI-T
----------	-----------------------------	---	------------------------

STAGE 1

Year 1 / A	Unit name	Unit overview	Outcomes
Term 1 10 weeks 15 Hours	Our daily bread	Students investigate how plants and animals provide us with food. They use their findings to prepare a simple food item.	ST1-1VA, ST1-4WS, ST1-5WT, ST1-10LW, ST1-11LW, ST1-12MW
Term 2 10 weeks 15 Hours	Things change	Students design and make a product to show changes in the landscape or sky over time.	ST1-3VA, ST1-4WS, ST1-5WT, ST1-8ES ST1-15I
Term 3 10 weeks 15 Hours	How do I carry that?	Students design and make a product to suit a particular need, using the findings of their investigations about how the properties of materials are used for specific purposes.	ST1-1VA, ST1-2VA, ST1-4WS, ST1-5WT, ST1-12MW, ST1-13MW
Term 4 10 weeks 15 Hours	Life, camera, action	Students make observations and use information sources to gather information about wildlife. They explore how technology increases our knowledge about the features, changes and needs of living things and how this helps us look after the planet.	ST1-3VA, ST1-4WS, ST1-5WT, ST1-6PW, ST1-9ES, ST1-10LW, ST1-15I

Year 2 / B	Unit name	Unit overview	Outcomes
Term 1 10 weeks 15 Hours	Toys	Students participate in a design challenge to explore how toys move and what makes them move through air, in water and on the ground.	ST1-1VA, ST1-4WS, ST1-5WT, ST1-7PW, ST1-16P
Term 2 10 weeks 15 Hours	What's that sound?	Students design a quiet place/space, using their knowledge of sound and the properties of relevant materials.	ST1-3VA, ST1-4WS, ST1-5WT ST1-6PW, ST1-13MW, ST1-14BE
Term 3 6 weeks 9 Hours	Water in my world	Students explore information products and how people use science in their daily lives to care for the Earth's resources.	ST1-2VA, ST1-4WS, ST1-5WT, ST1-9ES ST1-15I
Term 4 10 weeks 15 Hours	Playgrounds – past and present	Students investigate a range of places and spaces in their environment and how the design of these places is influenced by their purpose.	ST1-1VA, ST1-4WS, ST1-5WT, ST1-13MW, ST1-14BE

STAGE 1

INTEGRATED ENGLISH, HISTORY, MATHEMATICS, SCIENCE AND TECHNOLOGY

Term	Unit name	Unit overview	Outcomes
Term 1 1.5 Hours per week	Integrated Toys	Students investigate differences, similarities, changes and continuities by comparing and contrasting toys of their grandparents and parents with toys that they play with today. They participate in a design challenge to explore how toys move and what makes them move through air, in water or on the ground. Students also draw on their mathematical skills in order to gather and display data in a variety of ways, including through the use of lists, tally marks, tables and picture graphs. They communicate their findings and ideas using spoken language and compose written texts, for example procedures and recounts, using digital technologies as appropriate.	History: HT1-1, HT1-4 Science and Technology: ST1-1VA, ST1-4WS, ST1-5WT, ST1-7PW, ST1-16P English: EN1-1A, EN1-2A, EN1-3A, EN1-5A, EN1-9B Mathematics: MA1-17SP

Term 2 1.5 Hours per week	HISTORY Changing families	Students explore changes and continuities in past and present family life within the context of their own world. They investigate similarities and differences in family life, including structures and roles, by comparing the present with the past. Students engage in conversations and discussions about sources, such as objects and photographs from the past, to pose the question, 'How do we know?'	History: HT1-1, HT1-4 English: EN1-1A, EN1-4A, EN1-8B
	SCIENCE AND TECHNOLOGY What's that sound?	Students use the findings of their investigation of sound and the properties of materials, to develop a plan for materials that could be used in a quiet space. Investigations are conducted through cooperative teamwork to encourage the development of group interaction skills. Groups communicate their findings to the class using drawings and digital technologies as appropriate.	Science and Technology: ST1-3VA, ST1-4WS, ST1-5WT, ST1-6PW, ST1-13MW, ST1-14BE English: EN1-1A, EN1-2A, EN1-6B, EN1-12E
Term 3 1.5 Hours per week	HISTORY Then and Now	Students use a range of sources from the past in order to explore the passing of time, sequencing and the significance of the past, present and future. Students engage in conversations and discussions about days, holidays and events, and cultural differences in days celebrated by their families. Drawing on personal experience and feelings, they compose texts that describe and recount their favourite celebrated events.	History: HT1-1, HT1-4 English: EN-1A, EN1-2A, EN1-3A, EN1-7B
	SCIENCE AND TECHNOLOGY Water in my World	Students explore ways that people use science in their daily lives to care for the Earth's resources. They use a range of information sources and technologies to identify ways that they can be actively involved in caring for some common resources, including water, sustainably. In developing their understanding of the ways people use water in their daily lives, they gain an appreciation for water as a precious natural resource. Students draw on their mathematical skills to gather and display information related to investigations of water usage, in the form of graphs and tables. Shared reading and discussions incorporate a variety of imaginative and informative texts related to water. Drawing on topic knowledge, students compose a variety of texts.	Science and Technology: ST1-2VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-15I English: EN1-1A, EN1-2A, EN1-4A, EN1-5A, EN1-10C Mathematics: MA1-17SP
Term 4 1.5 Hours per week	Integrated Playgrounds – past and present	Through reading, viewing and responding to texts and examining photographic evidence, students explore past and present family life by investigating similarities and differences between their leisure activities and those of their parents and grandparents. They research, discuss and recount stories of family and local history and draw on comprehension strategies to explore a range of sources about the past. Students investigate how the materials used and the designs of a range of places and spaces in their local environment are influenced by their purpose. They apply learning in mathematics to collect and record observations, to check and classify data, and to represent and interpret displays of data using lists and tables. Students communicate their observations, findings and ideas using oral and written language.	History: HT1-1, HT1-4 Science and Technology: ST1-1VA, ST1-4WS, ST1-5WT, ST1-13MW, ST1-14BE English: EN1-1A, EN1-2A, EN1-5A, EN1-11D Mathematics: MA1-17SP

STAGE 2

Year 3 / A	Unit name	Unit overview	Outcomes
Term 1 10 weeks	Which came first ...?	Students extend their understanding of observable features, change and growth of living things to the concept of life cycles, as they observe first-hand the stages in the life cycle of a plant or animal. Students are reintroduced to the design process, prior to developing and evaluating an information product based on this investigation and their research into how changes in the environment could affect the life cycle of an animal or plant population. To help inform their design choices, students work in teams to evaluate existing information products about living things, create their own product, and then reflect on and evaluate the processes used in terms of the needs of the previously identified audience. It would be preferable to begin observations of the life cycle early in the unit, to provide time and opportunity for students to observe the entire cycle first-hand. If it is not possible	ST2-1VA, ST2-4WS, ST2-5WT, ST2-10LW, ST2-11LW, ST2-15I

		to complete the observation of the life cycle (e.g. due to time constraints or season), students could use a variety of secondary sources to gather information to show how the life cycle progresses.	
Term 2			
Term 3 6 weeks	Surviving extremes	Students use appropriate tools and equipment to collect and record data about some changes in natural conditions, e.g. tides, daily temperature, rainfall and wind, investigate how change in the environment is used by Aboriginal and Torres Strait Islander peoples to develop seasonal calendars, describe some changes in the landscape that have occurred over time as a result of natural processes, e.g. erosion by wind and water, research changes that have occurred in a local environment in Australia or an Asian region as a result of human activities, e.g. increasing erosion, construction of built environments and regeneration of an area, demonstrate that the rotation of the Earth on its axis is the cause of night and day, e.g. by using models of the Earth and sun, describe local seasonal changes that occur as a result of the Earth's movement around the sun, observe and record changes in the length and direction of a shadow during the day to show, how the movement of the Earth around the sun can be used to measure time, e.g. by using a shadow clock or sundial.	ST2-2VA, ST2-4WS, ST2-5WT, ST2-8ES, ST2-14BE
Term 4 5 weeks	Feeling hot! Hot! Hot!	Students describe some everyday situations where solids and liquids change state by adding heat (heating) or removing heat (cooling), predict and observe the effects of adding heat or removing heat on a variety of everyday solids and/or liquids, e.g. butter, chocolate and water, observe the changes that occur in the physical properties of everyday materials when they are heated, cooled, bent, stretched, folded and twisted	ST2-4WS, ST2-5WT, ST2-6PW, ST2-12MW, ST2-16P
Year 4 / B	Unit name	Unit overview	Outcomes
Term 1 7 weeks	Build it up	E.g. Students identify the physical properties of natural and processed materials, and how these properties influence their use	ST2-3VA, ST2-4WS, ST2-5WT, ST2-13MW, ST2-14BE
Term 2 10 weeks	Growing Pains	E.g. Students describe how relationships between the sun and the Earth cause regular changes	ST2-4WS, ST2-5WT, ST2-9ES, ST2-11LW, ST2-15I
Term 3 6 weeks	Making it move	E.g. Students describe everyday interactions between objects that result from contact and non-contact forces.	ST2-1VA, ST2-4WS, ST2-5WT, ST2-7PW, ST2-16P
Term 4 6 weeks	What class are you in?	E.g. Students describe that living things have life cycles, can be distinguished from non-living things and grouped, based on their observable features	ST2-4WS, ST2-5WT, ST2-10LW, ST2-11LW, ST2-15I

STAGE 3

Year 5 / A	Unit name	Unit overview	Outcomes
Term 1 5 weeks	Making connections	E.g. Students use scientific knowledge about the transfer of light to solve problems that directly affect people's lives	ST3-1VA, ST3-4WS, ST3-5WT, ST3-7PW, ST3-14BE
Term 2 10 weeks	Solar system time travellers	E.g. Students describe everyday interactions between objects that result from contact and non-contact forces and how discoveries by people from different cultures and times have contributed to advancing scientific understanding of the solar system	ST3-3VA, ST3-5WT, ST3-7PW, ST3-8ES

Term 3 6 weeks	Let's landscape	E.g. Students describe how the properties of materials determine their use for specific purposes and describes systems in built environments and how social and environmental factors influence their design	ST3-2VA, ST3-4WS, ST3-5WT, ST3-13MW, ST3-14BE
Term 4 5 weeks	Rebuilding after a tsunami	E.g. Students describe how social influences impact on the design and use of information and communication systems, including physical conditions of the environment and how these affect the growth and survival of living things	ST3-1VA, ST3-4WS, ST3-5WT, ST3-9ES, ST3-11LW, ST3-15I
Year 6 / B	Unit name	Unit overview	Outcomes
Term 1 5 weeks	Surviving a bushfire	E.g. Students describe how structural features and other adaptations of living things help them to survive in their environment	ST3-2VA, ST3-4WS, ST3-9ES, ST3-10LW, ST3-16P
Term 2 10 weeks	Let's celebrate!	E.g. Students describe systems used to produce or manufacture products, and the social and environmental influences on product design	ST3-1VA, ST3-4WS, ST3-5WT, ST3-12MW, ST3-13MW, ST3-16P
Term 3 6 weeks	Transforming the world move	E.g. Students describe systems in built environments and how social and environmental factors influence their design and how scientific understanding about the sources, transfer and transformation of electricity is related to making decisions about its use	ST2-1VA, ST2-4WS, ST3-3VA, ST3-4WS, ST3-5WT, ST3-6PW, ST3-14BE, ST3-15
Term 4			

LEARNING ACROSS THE CURRICULUM

Cross-curriculum priorities enable students to develop understanding about and address the contemporary issues they face.

The cross-curriculum priorities are:

- Aboriginal and Torres Strait Islander histories and cultures 🇺🇸
- Asia and Australia's engagement with Asia 🌏
- Sustainability 🌱

General capabilities encompass the knowledge, skills, attitudes and behaviours to assist students to live and work successfully in the 21st century.

The general capabilities are:

- Critical and creative thinking 🧠
- Ethical understanding ⚖️
- Information and communication technology capability 💻
- Intercultural understanding 🌐
- Literacy 📖
- Numeracy 📊
- Personal and social capability 👤

The Board's syllabuses include other areas identified as important learning for all students:

- Civics and citizenship 🇺🇸
- Difference and diversity 🌈
- Work and enterprise ⚡

Meeting the Needs of all Students

Students with Special Needs

Gifted and Talented Students

Adjustments (measures or actions) in relation to teaching and learning and assessment are to be made to enable a student with special education needs to access syllabus outcomes and content and demonstrate the achievement of outcomes.

Gifted students have specific learning needs that may require adjustments to the pace, level and content of the curriculum. Differentiated educational opportunities assist in meeting the needs of gifted students.

Page 10

Dalmeny Public School will:

- provide continuing professional development in Science and Technology in order to develop teacher understandings as well as the knowledge and skills to provide appropriate strategies in the classroom.
- provide for consistency in learning through a planned whole school approach.
- acquire, renew and review resources regularly to ensure they are relevant, practical and in good condition.
- support incursions and excursions relevant to quality teaching/learning in Science and Technology.

Teachers will:

- provide 1.5-2.5 hours History and Science and Technology per week.
- alternate History and Science and Technology each term to ensure both are covered within a semester.
- implement the syllabus, providing opportunities in learning that develop research skills and inquiry processes in the support of student learning.
- identify individual student needs through ongoing assessment.
- provide in- class support for students experiencing learning difficulties.
- provide meaningful learning situations in which students acquire knowledge and understanding through inquiry processes, discussion and research.
- provide real time, positive and constructive feedback for students, affirming what they know and guiding where to next.
- conduct meaningful, relevant assessment of student learning, teaching practices and Science and Technology units taught.
- provide written reports to parents on student achievements at the end of Semester 1 and Semester 2.

Assessment Guidelines

Assessment for Learning, *Assessment as Learning* and *Assessment of Learning* are three approaches to assessment that play an important role in teaching and learning. The Board of Studies Years K–10 syllabuses promote *Assessment for Learning* as an essential component of good teaching.

Page 11

Assessment for Learning

- enables teachers to use information about students' knowledge, understanding and skills to inform their teaching
- teachers provide feedback to students about their learning and how to improve

Assessment as Learning

- involves students in the learning process where they monitor their own progress, ask questions and practise skills
- students use self-assessment and teacher feedback to reflect on their learning, consolidate their understanding and work towards learning goals

Assessment of Learning

- assists teachers to use evidence of student learning to assess student achievement against learning goals and standards

Reporting

Descriptions of student achievement in Science and Technology provide schools with a useful tool to report consistent information about student achievement to students and parents, and to the next teacher to help plan future learning.

The A–E grade scale or equivalent provides a common language for reporting by describing observable and measurable features of student achievement at the end of a semester of work.

Students will:

- participate constructively in teaching and learning activities.
- Engage in planning for their future learning directions.
- take responsibility for their role in positive and active learning.

Parents can support student achievement by:

- demonstrating a positive interest in their child's / children's learning.

- helping their child / children set a time and place for homework.
- sharing concerns or difficulties experienced by their child with the class teacher
- encouraging their child / children.

DRAFT