Statements of Learning for Information and Communication Technologies (ICT)

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Contents

Foreword

At the July 2003 MCEETYA meeting, Ministers agreed to the development of Statements of Learning for Information and Communication Technologies (ICT) that define and deliver common curriculum outcomes to be used by jurisdictions to inform their own curriculum development. The development of the Statements is a response to concerns about the lack of consistency that exists in curriculums across the nation and the impact this is having on an increasingly mobile student population.

The Statements of Learning for Information and Communication Technologies (ICT) have been developed collaboratively by State, Territory and Australian education authorities. They provide a description of knowledge, skills, understandings and capacities that all students in Australia should have the opportunity to learn. The development of the Statements has involved identification of what is common amongst State and Territory curriculums as well as what is essential for all students to learn.

For the many students and their families who move school within or across jurisdictions, greater consistency in learning opportunities for children at particular stages of schooling will assist in alleviating the educational and emotional impacts associated with such moves.

In line with impacts being felt across all areas of Australian society, our students are increasingly operating in a national and global society and economy. It makes sense that education jurisdictions across Australia have worked collaboratively to identify the body of knowledge, skills, understanding and capacities which are essential for that context. Jurisdictions will need to consider how they integrate these elements into their own curriculums in a manner which suits the diversity of students' needs and schools across the country.

These statements represent significant collaboration between education authorities at a State, Territory and National level, and will inform future decisions by Education Ministers on the further work to be undertaken on English, Mathematics, Science, Civics and Citizenship, and Information and Communication Technologies.

Ken Smith
Chair, National Consistency of Curriculum Outcomes Steering Committee
Australian Education Systems Officials Committee

Statements of Learning for Information and Communication Technologies (ICT)

Introduction

This document, *Statements of Learning for Information and Communication Technologies (ICT)*, hereafter called in the text *Statements of Learning for ICT*, is the result of collaborative work by Australian education jurisdictions to achieve greater consistency in curriculum. It sets out the knowledge, skills, understandings and capacities that students in Australia should have the opportunity to learn and develop in the ICT domain.

Statements of Learning for ICT is not a curriculum in itself. Instead, it contains a series of statements about essential opportunities to learn in this particular domain which education jurisdictions have agreed to implement in their own curriculum documents. As such, this document is primarily intended for curriculum developers. It is not the express intent that the document is promoted directly with teachers or the general community.

Statements of Learning for ICT is not a list of all possible opportunities to learn within the ICT domain. It contains only those opportunities which all education jurisdictions agree should be consistent across Australia. Jurisdictions' own individual curriculum documents will likely include additional aspects of ICT.

Statements of Learning for ICT contains two critical elements: the Statements themselves and their professional elaborations, which work together as a package, with the Statements also represented in expanded form in the professional elaborations. The Statements are written in a plain English form which allows them to be engaged with by a broad audience if required. As the name suggests, the professional elaborations use the professional language of the ICT curriculum domain.

Underpinning the Statements and professional elaborations package within the *Statements of Learning for ICT* is the idea of an opportunity to learn. The opportunities to learn set out in this document are those opportunities seen as reasonable, challenging and appropriate. 'Reasonable' means it is realistic to expect that most students will have actually achieved the learning within a reasonable period of their first having the opportunity to learn. Up to two years can be considered reasonable for students. 'Challenging' means that the opportunities will be a stretch and thus they represent somewhat more than a proficient student could be expected to learn initially. 'Appropriate' means that the opportunities are suitable for the majority of young Australians to experience.

The opportunities to learn in the Statements and professional elaborations sections have been developed for four year junctures – the end of years 3, 5, 7 and 9. Most of the curriculum documents of Australian education jurisdictions are organised in bands, levels or stages rather than in year junctures and so the opportunities to learn in this document will most likely be included in jurisdictions' curriculum documents in the band, level or stage where the year juncture falls.

The opportunities to learn in the Statements and professional elaborations sections are also structured around broadly defined aspects of ICT, known as conceptual organisers. They provide coherence and structure for this document. In implementing the opportunities to learn, jurisdictions will use whatever organisers suit their curriculum documents best.

ICT for learning

We live in a technological world where information and communication technologies (ICT) are fundamental to most activities. The importance of ICT in society is emphasised in *Enabling Our Future* (Framework for the Future Steering Committee, 2003) which identifies ICT literate citizens as being central to Australia's economic and social goals, to improving productivity and efficiency, and to building innovative capacity and competitiveness. The importance of ICT in schooling was reinforced by the MCEETYA Performance Measurement and Reporting Taskforce (2005) which adopted a definition of ICT Literacy as:

> *The ability of individuals to use ICT appropriately to access, manage and evaluate information, develop new understandings, and communicate with others in order to participate effectively in society.*

These Statements of Learning and the professional elaborations view ICT as an integral tool in the learning process. ICT have the potential to extend student learning capabilities, engaging them in understanding concepts and processes in areas of learning and facilitating change in learning, thinking and teaching. Using ICT as a tool for learning enables students to:

- efficiently and effectively access digital information to assist with investigating issues, solving problems and decision making
- produce creative solutions to support learning and develop new understandings in areas of learning
- communicate, share and work collaboratively in local and global environments
- understand the legal, ethical and health and safety implications of using ICT and their responsibilities as users and developers
- develop new thinking and learning skills to support learning.

Technology and Information Communication Technologies

At times, the terms technology and ICT are used in society interchangeably. In these Statements of Learning and professional elaborations, technology is viewed as a generic term and ICT refers to a specific group of technologies.

'Technology is often used as a generic term for all the technologies people develop and use. It involves the purposeful application of knowledge, experience and resources to create products and processes that meet human needs' (Australian Education Council, 1994). Information and Communication Technologies are a specific type or sub-group of current and emerging technologies. ICT broadly encompass information and communication devices and the software that enables them to function. The devices usually have a central processor, and input and output components. Software supports the interaction between, and the operation of, these devices.

Using ICT in curriculum areas

Applying ICT as a tool for learning in curriculum areas enables all students to have the opportunity to become competent, discriminating, creative and productive users of ICT. They are better able to achieve curriculum outcomes through effective use of ICT. They develop the knowledge, skills and capacity to select and use ICT to inquire, develop new understandings, create, and communicate with others in order to participate effectively in society. Students should have the opportunity to understand the impact of ICT on society, including potential risks to health and safety.

Jurisdictions and schools may also provide the opportunity for students to undertake further specific studies in specialised fields of ICT interest or areas relating to post-school opportunities. These specialist fields of study are not the subject of these Statements of Learning or professional elaborations.

ICT curriculums across Australia

The Statements of Learning and professional elaborations draw upon the following aims which are a synthesis of introductions, rationales, aims and objectives from curriculum documents across Australia.

Generally, ICT curriculums across Australia intend students to have the opportunity to:

- use ICT to support inquiry, through the accessing, selecting, organising and interpreting of information and data
- learn with ICT to create new understandings
- create ICT solutions by selecting appropriate ICT, generating ideas, planning, monitoring and reflecting
- use ICT creatively and imaginatively
- collaborate and communicate through the effective use of ICT
- become discriminating, ethical, legal, responsible and safe users of ICT
- operate a range of current and emerging ICT to support and enhance learning in curriculum areas.

This analysis informed the process of generating the five conceptual organisers: Inquiring with ICT; Creating with ICT; Communicating with ICT; Ethics, issues and ICT; and Operating ICT.

Features of Statements of Learning for ICT and the professional elaborations

The *Statements of Learning for ICT* describe the knowledge, skills, understandings and capacities that all young Australians should have the opportunity to learn and develop in ICT across curriculum areas.

The professional elaborations build on the Statements of Learning by providing more specific detail and by making use of the technical language related to ICT for the profession.

As systems over time will integrate the *Statements of Learning for ICT* into their curriculum documents, teachers' application of them will be through their own State or Territory curriculums.

The *Statements of Learning for ICT* are structured around five broadly defined organisers of ICT for the junctures of years 3, 5, 7 and 9. The organisers describe five broad aspects of ICT.

The choice of organisers in this document is for the purpose of clearly presenting the aspects of ICT that apply across curriculum areas. These organisers are not intended to be treated in isolation or to impose a structure for curriculum development but rather be treated flexibly to suit the requirements of individual curriculums in individual education jurisdictions.

The organisers are interdependent and may integrate in a variety of ways depending on many factors that may apply in education jurisdictions. Figure 1 represents this integration and interdependence. Depending on the context, the prominence of the organisers involved will vary.

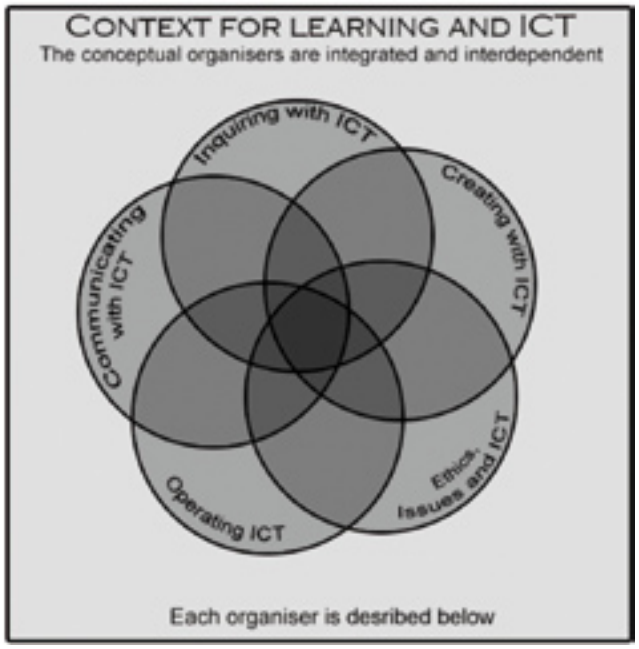

Figure 1: The relationship between the conceptual organisers of ICT

Inquiring with ICT

Students use ICT in processes of inquiry and research. They identify information and data needs and plan actions to locate, access and retrieve information and data. Students organise, manipulate, structure and refine information to improve their interpretations and construct new understandings. They acknowledge and use information and data from a variety of sources and critically assess their quality.

Creating with ICT

Students create a range of ICT learning solutions developing their understanding, demonstrating their creativity, learning and supporting their thinking processes across or within curriculum areas. They analyse problems, needs and opportunities, exploring ideas, developing concepts and evaluating ICT learning solutions. They use processes to select appropriate ICT, generate ideas and plans, express themselves and monitor and reflect on their learning.

Communicating with ICT

Students use ICT to enhance communication. They share, interact, develop relationships and apply ICT to present information and data, engage with audiences and collaborate in meaningful ways. They use ICT to communicate face-to-face and remotely with individuals and with local and global communities. Students experience alternative views, construct new understandings and empathise with others.

Ethics, issues and ICT

Students understand the increasingly prominent role of ICT in society and its impact on self, work and others. They have an appreciation of the roles and responsibilities of people working with ICT and are discriminating, ethical, legal, responsible and safe users of ICT. Students use safe practices to protect information and develop strategies for handling unwanted communication. They reflect on ICT issues in the past and are able to apply future thinking when exploring the impact of ICT developments.

Operating ICT

Students efficiently operate a range of ICT functions and applications for creating, communicating, inquiring and for the management, storage and retrieval of information and data. They competently perform operational sequences with a range of ICT and use features of the ICT to achieve curriculum outcomes. Students consistently apply standards and conventions when using ICT. They apply preventative strategies for maintaining ICT and solve basic ICT-related problems as end-users.

Reading the Statements of Learning and the professional elaborations

The *Statements of Learning for ICT* and their professional elaborations have been designed to describe progressions of learning that are accessible and challenging at four year junctures of years 3, 5, 7 and 9.

Each Statement of Learning and professional elaboration subsumes the knowledge, skills, understandings and capacities of the Statements and professional elaborations that precede it. It is important for curriculum writers to consider the Statements of Learning in ICT and the professional elaborations as a whole, in conjunction with the Introduction.

As noted above, the professional elaborations expand upon and provide more specific detail that clarifies the intent of the Statements of Learning by making use of the technical language of ICT.

The *Statements of Learning for ICT* do not attempt to address pedagogical issues. For a clear statement relating to pedagogy and ICT refer to *Pedagogy Strategy: Learning in an online world,* MCEETYA, 2005, and *Contemporary Learning: Learning in an online world,* MCEETYA, 2005.

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Year 3 Statements of Learning for ICT

Year 3 Inquiring with ICT

Students have opportunities to conduct simple investigations and inquiries in a variety of curriculum areas. They use ICT in inquiry processes to support their thinking and develop new understandings of specific issues and topics.

Students are active in the collaborative planning and conduct of these inquiries by selecting appropriate ICT and focusing the inquiry by setting directions and possible questions. They also make basic plans to gather information or data from a range of limited sources. They use structured searches to locate information sources, navigate to these sources and access the required information and/or data.

Students evaluate the information and data against criteria relating to its usefulness and the credibility of the source, deciding whether to use the information or gather further information. When the information gathering is completed it is organised and interpreted in response to the focus of the inquiry.

During inquiry processes, students are encouraged to experiment with different ICT, develop new understandings of the inquiry focus and begin to build knowledge of how ICT can be used effectively for inquiry.

Year 3 Creating with ICT

Students have opportunities to experiment with ICT as a creative tool in curriculum areas, to represent their ideas and create imaginative responses to problems and tasks. Students explore different ICT to create ICT learning solutions and understand that these ICT learning solutions are created for a particular audience and purpose.

Students reflect on the ways they have used ICT as a learning tool. They explain how their ICT learning solutions could be improved and use ICT to record evidence of their learning.

Year 3 Communicating with ICT

Students have opportunities to explore the use of ICT for sharing and communicating their ideas, understandings and responses, and for collaborating with appropriate audiences safely. They recognise that ICT can be used to communicate different meanings in different situations and apply some communication conventions.

They have opportunities to explore different digital media and recognise some elements of image and identity used in communicating with ICT. They also reflect on their use of ICT for communication and identify some strategies for enhancing their communication.

Year 3 Ethics, issues and ICT

Students have opportunities to apply ICT protocols and appropriate ethical expectations. They develop understandings of the safe and responsible practices required when using ICT through discussion and observation of practices.

Students examine the relevant values inherent in particular ICT environments and identify issues and practices for using ICT in a safe and responsible manner. They identify the owner(s)/creator(s) of digital information and acknowledge them.

Students use basic preventative strategies for addressing health and safety issues and reflect on their personal safety and information security practices when using ICT. They identify how ICT is used in the community and recognise ways they impact on people.

Year 3 Operating ICT

Students explore ICT as an integral part of their world. They share experiences and develop new learning and skills in the operation of ICT. Students have the opportunity to use and handle ICT safely and carefully.

They understand that personal ICT resources and files can be managed in different ways and have opportunities to apply basic formatting features.

When working with files and content in digital environments students know some ICT terminology for describing common ICT devices and use strategies for seeking help.

Year 5 Statements of Learning for ICT

Year 5 Inquiring with ICT

Students have opportunities to collaborate and use ICT to conduct inquiries for a variety of purposes in curriculum areas. They determine the direction of the inquiry and match the appropriate ICT to the inquiry focus. They organise the information or data in meaningful ways to meet the inquiry purposes and develop new understandings.

When students use ICT in the inquiry process they make decisions about information needed, the level of collaboration required and the appropriate ICT for the inquiry. They identify possible sources of information and/or ways to gather data, then plan and conduct structured searches from different sources.

Students evaluate the accuracy and credibility of the information and/or data they have gathered and commence organising the information and identifying the relationships between the information and/or data from the various sources. They also evaluate the information for its relevance to the purposes of the inquiry.

Students reflect on their experience in using ICT for inquiry. They develop knowledge of the strategies for searching, selecting, gathering, and organising information and/or data. They also monitor how they develop new understandings through inquiry.

Year 5 Creating with ICT

Students have opportunities to use ICT as a creative tool in curriculum areas, expressing their ideas, representing their thinking and developing specific responses to tasks. They use and reflect on simple design processes to generate imaginative ICT learning solutions.

Students select relevant ICT to explore and respond to problems and tasks. They use ICT to represent their thinking and ideas and make simple plans to create ICT learning solutions. They implement these plans considering the intended audience, purpose and the required features.

They reflect on their use of ICT and explain their innovative use of ICT to represent their ideas. They evaluate the ICT learning solutions examining their choice of ICT, the extent to which the required features work to meet the purpose of the task and make modifications as appropriate based on this evaluation.

They recognise ICT as a creative tool for recording their planning, thinking and learning.

Year 5 Communicating with ICT

Students use ICT to communicate with a range of identified audiences. They share ideas, responses, understandings and information, and collaborate for learning purposes. They understand that communication with ICT varies in different social and cultural contexts and use appropriate conventions for the intended audiences and specific purposes.

Students have opportunities to use different digital media to improve the communication of ideas, express a personal image and establish an identity. They reflect on experiences to analyse the delivery and effectiveness of the communication.

Year 5 Ethics, issues and ICT

Students apply codes of practice that promote safety, responsibility and respect when working in online and stand-alone environments. They examine practices in a variety of ICT environments to recognise the underlying values. They recognise the importance of acknowledging the owner(s)/creator(s) of digital work and establish sound practices for acknowledging them.

Students implement a range of preventative strategies for addressing health and safety issues when using ICT and develop and apply strategies for the security of personal information.

Students understand how ICT are used in the workplace and reflect on their impact in society.

Year 5 Operating ICT

Students use ICT in purposeful ways. They gain new understandings of operational processes through sharing and experimentation. Students have the opportunity to use the basic capabilities of a range of ICT devices. They distinguish and make selections between common ICT devices and access appropriate network, personal system and device information.

They have opportunities to understand that the management of personal ICT resources affect operational efficiency and adopt some recognised ICT conventions.

They use ICT terminology to describe some common ICT devices and processes and develop and apply help strategies for effective use of ICT. They also describe some management processes when working with content in digital environments.

Year 7 Statements of Learning for ICT

Year 7 Inquiring with ICT

Students have opportunities to exploit the potential of ICT to support inquiry processes and develop new understandings in curriculum areas. They plan inquiries in meaningful ways to suit the intended investigation, manipulating and constructing information in a variety of formats from a range of sources. Students devise ways of working collaboratively and independently to develop new understandings.

Students use ICT to manage the inquiry process, preparing and monitoring plans, identifying inquiry questions and determining information or data requirements. They use ICT extensively to conduct and refine searches using multiple terms in response to inquiry questions and the subsequent search results.

Students evaluate the information they have gathered for its accuracy, relevance, completeness and credibility determining whether the information gathered meets the needs of the inquiry purposes. They use a variety of ICT to organise and analyse information or data sets, and represent their thinking in response to the inquiry focus.

Students experiment, test and inquire about information or data sets and gain new understandings through using or applying ICT models.

Year 7 Creating with ICT

Students have opportunities to create innovative ICT learning solutions in response to learning tasks. They work independently or in collaborative environments to plan solutions that take into account common ICT design features and criteria for evaluating effectiveness. They create ICT learning solutions to support their thinking and understanding.

Students use ICT as a learning tool to analyse and creatively represent new understandings. They use ICT to develop plans and proposals identifying the features of the ICT learning solution, the criteria for success and processes for learning. Students create ICT learning solutions in a variety of ways, for specific audiences, purposes or aesthetic effects. They make creative choices when selecting and using ICT including combining a variety of media.

They evaluate the quality of the ICT learning solutions, their plans and processes against criteria for success and use ICT creatively to document and demonstrate their planning, thinking and learning.

Year 7 Communicating with ICT

Students interact with a range of audiences in local and global contexts. They have opportunities to communicate with ICT and develop a wider understanding of how ICT can be used to exchange ideas, collaborate, organise, present and develop new learning with individuals, groups, or wider audiences.

They understand how ICT can be used to enhance interpersonal relationships and how it can be used to empathise with people in other places and situations.

They have opportunities to select different digital media, apply suitable or agreed communication conventions and protocols and to develop their own image and identity or that of a group. They acknowledge feedback and reflect on their use of ICT to communicate in a range of contexts.

Year 7 Ethics, issues and ICT

Students have opportunities to apply codes of practice and meet expectations regarding responsible practices. Students use agreed principles to review their use of ICT in terms of safety, ethical practice, legality and responsibility.

Students use ICT practices reflecting the accepted values of the ICT environment and apply codes of practice that respect individual rights and cultural differences when accessing and delivering information online. They apply principles that acknowledge ownership of digital information and develop an awareness of legislation surrounding digital theft and plagiarism.

Students apply preventative strategies to address health and safety issues when using ICT and apply strategies for securing and protecting personal and digital information. Students evaluate how their use of ICT meets ethical and legal criteria.

Students reflect on the use of ICT in the workplace and society, assess its impact and consider future needs.

Year 7 Operating ICT

Students use ICT with a purposeful approach for learning, develop advanced operational skills and begin to use the extended functionality of a range of ICT devices. They understand the main uses and processes of some input, output, processing and storage devices and use correct terminology when describing these.

Students have opportunities to understand that there are advantages in managing personal ICT resources, customising interfaces and applying agreed processes for personal management of digital content. They also understand and apply operational conventions when using ICT and develop strategies for learning new ICT operations recognising that there is often more than one way to perform tasks.

Year 9 Statements of Learning for ICT

Year 9 Inquiring with ICT

Students have opportunities to routinely use ICT to enhance their ability to research and construct new learning through inquiry. They often collaborate and use their ICT capabilities to identify the inquiry requirements, develop detailed plans or research outlines and systematically gather information in different forms from a variety of sources.

Students perform advanced ICT searches, selecting appropriate sources of digital information in response to identified needs and research questions. They develop and implement plans and processes for efficient information management processes, locating, retrieving, manipulating and storing information and/or data.

They select and apply ICT to classify, organise, analyse and interpret information or data to respond to the inquiry requirements or identify new paths of inquiry. They routinely evaluate the information or data for its accuracy, relevance, completeness, authenticity and credibility.

Students understand that using ICT can enable broader inquiry and present a wide variety of information, opinions and perspectives. They have the opportunity to develop or use models to inquire, experiment with or gain new understandings of concepts, processes or systems

Year 9 Creating with ICT

Students have opportunities to become critical and creative developers of ICT learning solutions. They work collaboratively and independently negotiating the development processes and producing creative ICT learning solutions for identified purposes and audiences. Students use ICT to develop understandings of concepts and perspectives on issues, topics and/or content.

Students analyse ICT-related problems and have opportunities to identify the process, solution or system changes required to meet their needs. They apply a range of design processes to produce and combine media for generating creative ICT learning solutions. They experiment with ICT and evaluate creative opportunities for learning in curriculum areas.

They use ICT as a tool to develop concepts and creatively demonstrate their understandings. They assess ICT for its potential to produce creative solutions, plans and simple systems. They creatively apply suitable ICT to develop solutions that inform, entertain, move or persuade audiences, or serve a particular function.

They establish criteria for success in developing and evaluating creative ICT learning solutions and use ICT to describe their learning and document creative development processes.

Year 9 Communication with ICT

Students use ICT to inform, persuade and develop thinking in a range of contexts for learning. They have opportunities to use a range of ICT to distribute information, to collaborate, to exchange ideas, to present critical opinions, and to problem solve with others, locally and globally. They also use ICT to enhance interpersonal relationships, empathise, and develop social and cultural understandings.

They consistently apply presentation and communication conventions or protocols and use a variety of ICT to exchange and interpret messages and meanings. They have opportunities to use ICT to accurately present an identity. Students also reflect on feedback to analyse, improve and describe how their use of a particular ICT could be more effective in future communications.

Year 9 Ethics, issues and ICT

Students have opportunities to consistently apply codes of practice relevant to local and global environments. They identify and discuss the potential and implications of ICT for learning.

Students take into account individual rights and cultural expectations when accessing or creating digital information, understanding that values shape how ICT are used. They adhere to codes of practice and apply strategies to conform to intellectual property and copyright laws, particularly in relation to online access. They analyse and evaluate their ICT use to consider economic, social, ethical, and legal perspectives. They also develop and maintain strategies for securing and protecting digital information.

Students select practices to ensure health and safety issues are minimised when using ICT and recognise that some users will have specialised needs. They apply their knowledge of how ICT are used today in order to predict possible future impacts on the workplace and society.

Year 9 Operating ICT

Students demonstrate an autonomous and purposeful approach to operating ICT in curriculum areas. They are proficient and have the opportunities to apply efficient operational sequences. They consistently apply formats and conventions when undertaking individual and collaborative tasks. They have opportunities to understand that all ICT systems involve processing, input, output and storage functions and explain the main functions and processes involved.

Students also understand that there are advantages in cooperating in the management of ICT resources in personal and collaborative environments. They consistently use agreed processes for accessing and working with personal information and content.

Students use correct terminology to describe a range of devices and processes for performing complex operations and use appropriate support when updating or learning new operational skills. They manage and maintain the integrity of information and content in personal or collaborative digital environments.

Year 3 Professional Elaborations – Opportunities to Learn for ICT

Year 3 Inquiring with ICT

Students collaborate and use ICT to conduct inquiries in curriculum areas. They use ICT to support thinking and develop new understandings.

Students have the opportunity to:
- understand that inquiry is a process that may be enhanced through the use of ICT
- focus an inquiry by selecting the appropriate ICT and collaborating to set the inquiry directions and possible questions
- make basic plans to gather information or data from a range of limited sources
- conduct structured searches by navigating to sources, locating and accessing the information and data
- apply agreed criteria to determine the usefulness and credibility of information and data
- order information or data using ICT and make an interpretation in response to the inquiry focus
- experiment with different ICT to develop new understandings relating to the inquiry focus
- reflect on the use of ICT for inquiry and explain how it can be used effectively for inquiry purposes.

Year 3 Creating with ICT

Students experiment with ICT as a creative learning tool in curriculum areas, representing their ideas and responding imaginatively to problems and opportunities for learning. They reflect on their use of ICT for representing ideas and enhancing their learning.

Students have the opportunity to:
- explore different ICT to represent imaginative ideas and responses to problems
- experience ICT as a creative learning tool
- propose ways to use ICT to create solutions for learning
- understand ICT learning solutions are created for a particular audience and purpose
- reflect on ways ICT have been used to create solutions and represent ideas
- explain how ICT solutions could be improved
- use ICT to record evidence of their learning.

Year 3 Communicating with ICT

Students explore the use of ICT to share and communicate their ideas, understandings and responses, and to collaborate with appropriate audiences. They experiment with, and use ICT, to communicate as part of their learning in curriculum areas.

Students have the opportunity to:
- explore ICT to share and communicate their ideas, understandings and responses with safe audiences

- use ICT to communicate and collaborate in relevant learning contexts
- recognise that ICT can be used to communicate different meanings in different situations
- identify and apply some communication conventions when using ICT
- explore different digital media to communicate
- recognise some elements of image and identity in communication with ICT
- reflect on their use of ICT for communication and identify some effective strategies for enhancing their communication.

Year 3 Ethics, issues and ICT

Students comply with expectations and protocols when using ICT. They develop understandings of the safe and responsible practices required when using ICT through discussion and observation of practices.

Students have the opportunity to:
- develop and apply protocols for safe and responsible use of ICT
- examine relevant values and identify issues and practices for using ICT in a safe and responsible manner
- identify the owner(s)/creator(s) of digital information and acknowledge them
- use basic preventative strategies addressing health and safety issues when using ICT
- reflect on individual use of ICT to enhance personal safety and information security
- identify how ICT are used in the community and ways they impact on people.

Year 3 Operating ICT

Students explore ICT as an integral part of their world. They share experiences and develop new learning and skills in the operation of ICT.

Students have the opportunity to:
- use and handle ICT safely and carefully
- use common ICT devices to navigate and interact with a variety of ICT
- understand that personal ICT resources and files can be managed in different ways
- apply basic formatting features when using ICT
- know some ICT terminology for describing common ICT devices
- use strategies for seeking help and using ICT
- develop strategies for working with files and content in digital environments.

Year 5 Professional Elaborations – Opportunities to Learn for ICT

Year 5 Inquiring with ICT

Students collaborate and use ICT for inquiry purposes in a variety of learning contexts in curriculum areas. They determine the direction of the inquiry by choosing the appropriate ICT to match the inquiry focus. They organise the information or data in meaningful ways to meet the inquiry purposes and develop new understandings.

Students have the opportunity to:

- make decisions about information needs, the level of collaboration and the appropriate ICT for inquiry
- identify possible sources of information and/or ways to gather data
- plan and conduct structured searches from different sources
- evaluate the accuracy, relevance and credibility of information or data through agreed criteria
- determine the relevance of information and data for the intended purpose
- select and use ICT to organise the information and identify relationships between information or data from a variety of sources for identified purposes
- reflect on their experience in using ICT for inquiry, highlighting strategies for searching, selecting, generating, organising information or data and developing new understandings.

Year 5 Creating with ICT

Students use ICT as a creative learning tool in curriculum areas, expressing their ideas, representing their thinking and developing specific responses to learning tasks. They use and reflect on simple design processes to generate imaginative ICT learning solutions.

Students have the opportunity to:

- select relevant ICT to explore and respond to problems and opportunities
- use ICT as a tool to represent creative thinking and ideas
- make simple plans to use ICT to create solutions for learning
- create ICT solutions considering audience, purpose and required features
- reflect on the use of ICT and explain strategies for innovative use of ICT
- evaluate ICT solutions based on the choice of ICT, the extent to which the required features work to meet the purpose, and then make modifications, where appropriate
- recognise ICT as a creative tool for recording their planning, thinking and learning.

Year 5 Communicating with ICT

Students use ICT to communicate with identified audiences, sharing ideas, information and responses, and collaborating for learning purposes. They appreciate that specific conventions may apply when using ICT for communication purposes.

Students have the opportunity to:
- use ICT to collaborate and communicate ideas, information, responses and new understandings with a range of audiences
- understand that communication of information varies in different social and cultural contexts
- use ICT considering the intended audience, purpose and appropriate conventions
- use different digital media to improve the communication of ideas
- explore ways to express a personal image and establish an identity when using ICT
- reflect on their experiences and analyse their strategies when using ICT to communicate.

Year 5 Ethics, issues and ICT

Students conform with codes of practice required when using ICT. They reflect on their experiences and evaluate their practices in terms of being socially aware, safe, responsible and respectful.

Students have the opportunities to:
- apply codes of practice that promote safety, responsibility and respectfulness when working in an online environment
- examine practices in a variety of ICT environments to recognise the underlying values
- recognise the importance of acknowledging the owner(s)/creator(s) of digital information and establish sound practices for doing this
- implement a range of preventative strategies for addressing health and safety issues when using ICT
- develop and apply basic safety strategies for securing personal information
- understand how ICT are used in the workplace and reflect on their impact in society.

Year 5 Operating ICT

Students use ICT in purposeful ways. They have a confident approach and gain new understandings of operational processes through sharing and experimentation.

Students have the opportunity to:
- use the basic capabilities of a range of ICT devices
- recognise operational similarities and differences, and make selections between common input, output and storage devices
- access appropriate network, personal system and device information
- understand that the management of personal ICT resources affects operational efficiency
- understand and adopt some recognised ICT conventions
- use ICT terminology to describe some common ICT devices and processes for operating them
- develop and apply ‘help’ strategies for effective use of ICT
- describe some management processes when working with content in digital environments.

Year 7 Professional Elaborations – Opportunities to Learn for ICT

Year 7 Inquiring with ICT

Students exploit the potential of ICT to support inquiry processes and develop new understandings in curriculum areas. They plan inquiry in meaningful ways to suit the intended investigation. They use ICT independently or work in collaborative environments, to manipulate and construct information in a variety of formats from a range of sources.

Students have the opportunity to:

- use ICT to collaboratively and independently conduct investigations and develop new understandings
- identify inquiry questions and determine information or data requirements
- conduct and refine searches using multiple terms related to inquiry questions and subsequent search results
- use ICT to prepare plans for managing and monitoring investigations and to record reasons for adjusting the plans
- evaluate information for its accuracy, relevance, completeness and credibility
- use various ICT to organise and analyse information or data sets and represent their thinking in response to the inquiry focus
- experiment, test and inquire about information or data sets and gain new understandings through using or applying ICT models.

Year 7 Creating with ICT

Students create innovative ICT learning solutions in curriculum areas. They work independently or in collaborative environments planning solutions that take into account common ICT design features and criteria for evaluating effectiveness. They use ICT to support their thinking and understanding.

Students have the opportunity to:

- combine a variety of media to develop innovative ICT learning solutions
- use ICT as a tool to analyse and creatively represent new understandings
- use ICT to develop plans and proposals, identifying the features, evaluation criteria and processes for learning
- create ICT learning solutions in a variety of ways for specific audiences, purposes or aesthetic effects
- select and use ICT creatively
- evaluate the quality of ICT learning solutions, plans and processes against criteria for success
- use ICT creatively to document and demonstrate planning, thinking and learning.

Year 7 Communicating with ICT

Students interact with a range of audiences in local and global contexts. They continue to experience ICT for communication and develop wider understandings of how ICT can be used to exchange ideas, to organise, develop and present new learning.

Students have the opportunity to:
- select ICT to exchange, collaborate, share and present information, ideas and opinions with individuals, groups or wider audiences
- understand how ICT can be used to enhance interpersonal relationships
- understand that ICT can be used to empathise with people in other places and situations
- apply suitable or agreed communication conventions and protocols
- select and use different digital media to improve the communication of ideas
- establish their own image and identity or that of a group through the use of ICT
- acknowledge feedback, and reflect on their use of ICT to convey messages and meaning in a range of contexts.

Year 7 Ethics, issues and ICT

Students apply codes of practice and meet expectations demonstrating responsible practices. Using agreed principles, they consider their use of ICT in terms of safety, ethical practice, legality and responsibility.

Students have the opportunities to:
- use responsible and respectful ICT practices reflecting the accepted values
- apply codes of practice that respect individual rights and cultural differences when accessing and delivering information online
- apply principles that acknowledge ownership of digital information and an awareness of legislation surrounding digital theft and plagiarism
- apply preventative strategies around health and safety issues when using ICT
- apply a range of identified strategies for securing and protecting personal and digital information
- reflect on the use of ICT to assess its impact and future needs in the workplace and society
- evaluate how their use of ICT meets ethical and legal criteria.

Year 7 Operating ICT

Students engage in ICT with a purposeful approach for learning. They develop more advanced operational skills and broaden their understanding of system resources, processes and conventions.

Students have the opportunities to:
- understand the main uses and processes of some input, output, processing and storage devices
- use efficient and extended functionality of a range of ICT devices
- understand that there are operational advantages in managing personal ICT resources and customising interfaces
- understand and apply operational conventions when using ICT
- use correct terminology to describe various ICT devices and processes when operating an ICT
- develop strategies for new operational tasks and recognise that there is often more than one way to perform tasks
- apply agreed processes and develop efficient and secure practice for personal management of content in digital environments.

Year 9 Professional Elaborations – Opportunities to Learn for ICT

Year 9 Inquiring with ICT

Students routinely collaborate and use their ICT capability for inquiry and research to enhance and construct new learning. They clearly identify requirements, develop detailed plans or research outlines, and systematically gather information in different forms, from a variety of sources.

Students have the opportunities to:

- perform advanced ICT searches for inquiry in curriculum areas
- select appropriate sources of digital information in response to identified needs, inquiries and research questions
- develop and implement plans and processes for efficient information management processes
- select and use a range of techniques and ICT to manage, organise, manipulate, represent and use information and data from a variety of sources
- routinely evaluate information or data for its accuracy, relevance, completeness, authenticity and credibility
- select and apply ICT to classify, organise, analyse and interpret information or data to respond to inquiry or identify new paths of inquiry
- develop or use models to inquire, experiment with or gain new understandings of concepts, processes or systems
- understand that using ICT can enable broader inquiry, presenting a wide variety of information, opinions and perspectives.

Year 9 Creating with ICT

Students develop creative ICT learning solutions for identified purposes and audiences. They work collaboratively and independently, negotiating the development processes for learning and creating solutions. Students use ICT to develop understandings of concepts and perspectives on issues, topics and/or content.

Students have the opportunities to:

- apply a range of design processes to produce and combine media for generating creative ICT learning solutions
- use ICT as a learning tool to develop concepts and creatively demonstrate these understandings
- analyse ICT-related problems and opportunities to identify processes, solutions or system changes required to meet needs
- experiment with ICT and evaluate creative opportunities for learning in curriculum areas
- select and creatively apply suitable ICT to develop ICT learning solutions that inform, entertain, move or persuade audiences, or serve a particular function

- assess and select ICT to produce creative ICT learning solutions, plans and simple systems, and reflect on the choices and uses for learning
- establish criteria for success in developing and evaluating creative ICT learning solutions
- use ICT to describe learning and document creative development processes.

Year 9 Communicating with ICT

Students use ICT to inform, persuade and develop new thinking. They exchange communications in a range of contexts for learning in curriculum areas. Consideration is given to conventions and protocols and an awareness of the sensitivities for others.

Students have the opportunities to:
- use a range of ICT to distribute information, to collaborate, to exchange ideas, to present critical opinions, and to problem solve with others, locally and globally
- use ICT to enhance interpersonal relationships, empathise, and develop social and cultural understandings
- consistently apply presentation and communication conventions or protocols
- exchange and interpret messages and meanings through a variety of ICT
- use ICT to accurately promote an identity and communicate relevant ideas or information
- reflect on feedback and ICT processes used to analyse, improve and describe how their use of a particular ICT could be more effective in future presentations or communications.

Year 9 Ethics, issues and ICT

Students consistently apply the codes of practice relevant to both local and global environments. They identify implications associated with the use of ICT and discuss the place and potential of ICT for learning and in society.

Students have the opportunities to:
- apply practices that take into account individual rights and cultural expectations when accessing or creating digital information
- understand that values shape how ICT are used
- adhere to codes of practice and apply strategies to conform to intellectual property and copyright laws, particularly in relation to online access
- adopt practices to ensure health and safety issues are minimised when using ICT
- develop and maintain strategies for securing and protecting electronic information
- apply knowledge of how ICT are used today to predict potential future impacts on the workplace and society
- analyse and evaluate ICT use, considering economic, social, ethical and legal perspectives.

Year 9 Operating ICT

Students demonstrate an autonomous and purposeful approach to operating ICT in curriculum areas. They are proficient and accurate and readily utilise a comprehensive knowledge of functions in a variety of ICT.

Students have the opportunities to:

- apply efficient and effective operational sequences with a variety of ICT
- understand that all ICT systems involve processing, input, output and storage functions
- explain the main functions and processes of a range of processing, input, output and storage devices
- understand that there are operational advantages in cooperating in the management of ICT resources in personal and collaborative environments
- consistently apply formats and conventions when undertaking individual and collaborative tasks
- use correct terminology to describe a range of ICT devices and to describe processes for performing complex operations
- select and use appropriate support when updating or learning new operational skills.
- consistently use agreed processes for accessing and working with personal information and content
- manage and maintain the integrity of information and content in personal or collaborative digital environments.