

## Information and Communication Technology Capability learning continuum

| Sub-element   | Level 1<br>Typically, by the end of<br>Foundation Year, students:   | Level 2<br>Typically, by the end of<br>Year 2, students:  | Level 3<br>Typically, by the end of<br>Year 4, students:  | Level 4<br>Typically, by the end of<br>Year 6, students:   | Level 5<br>Typically, by the end of<br>Year 8, students:   | Level 6<br>Typically, by the end of<br>Year 10, students:   |
|---|---|---|---|--|--|---|
| <b>Applying social and ethical protocols and practices when using ICT element</b> |   |   |   |  |  |   |
| <b>Recognise intellectual property</b>  | recognise ownership over their own digital work   | recognise ownership of digital products that others produce and that what they create or provide can be used or misused by others             | acknowledge when they use digital products created by someone else, and start to indicate the source  | identify the legal obligations regarding the ownership and use of digital products and apply some referencing conventions  | apply practices that comply with legal obligations regarding the ownership and use of digital products resources   | identify and describe ethical dilemmas and consciously apply practices that protect intellectual property   |
| <b>Apply digital information security practices</b>                               | follow class rules about using digital information  | follow class rules about applying selected standard guidelines and techniques to secure digital information                                   | independently apply standard guidelines and techniques for particular digital systems to secure digital information   | independently apply strategies for determining and protecting the security of digital information and assess the risks associated with online environments   | independently apply strategies for determining the appropriate type of digital information suited to the location of storage and adequate security for online environments   | use a range of strategies for securing and protecting information, assess the risks associated with online environments and establish appropriate security strategies and codes of conduct  |
| <b>Apply personal security protocols</b>  | follow class rules when sharing personal information with known audiences and demonstrate an awareness of applying social protocols when using ICT to communicate | follow class guidelines when sharing personal information and apply basic social protocols when using ICT to communicate with known audiences | apply standard guidelines and take action to avoid the common dangers to personal security when using ICT and apply appropriate basic social protocols when using ICT to communicate with unknown audiences | identify the risks to identity, privacy and emotional safety for themselves when using ICT and apply generally accepted social protocols when sharing information in online environments, taking into account different social and cultural contexts | identify and value the rights to identity, privacy and emotional safety for themselves and others when using ICT and apply generally accepted social protocols when using ICT to collaborate with local and global communities | independently apply appropriate strategies to protect rights, identity, privacy and emotional safety of others when using ICT, and discriminate between protocols suitable for different communication tools when collaborating with local and global communities |
| <b>Identify the impacts of ICT in society</b>                                     | identify how they use ICT in multiple ways on multiple devices  | identify how ICT is used at home and at school  | identify the value and role of ICT use at home and school   | explain the main uses of ICT at school, home and in the local community, and recognise its potential positive and negative impacts on their lives  | explain the benefits and risks of the use of ICT for particular people in work and home environments   | assess the impact of ICT in the workplace and in society, and speculate on its role in the future and how they can influence its use  |

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| <b>Investigating with ICT element</b>                           |  |   |  |  |   |   |
| <b>Define and plan information searches</b>                     | use ICT to identify where information is located   | use ICT to identify, record and classify textual and graphic information to show what is known and what needs to be investigated                | use ICT to plan an information search or generation of information, recognising some pattern within the information        | use a range of ICT to identify and represent patterns in sets of information and to pose questions to guide searching for, or generating, further information      | use a range of ICT to analyse information in terms of implicit patterns and structures as a basis to plan an information search or generation                             | select and use a range of ICT independently and collaboratively, analyse information to frame questions and plan search strategies or data generation                             |
| <b>Locate, generate and access data and information</b>         | use icons to locate or generate required information   | locate information from a given set of digital sources  | locate, retrieve or generate information from a range of digital sources   | locate, retrieve or generate information using search engines and simple search functions and classify information in meaningful ways                              | locate, retrieve or generate information using search facilities and organise information in meaningful ways  | use advanced search tools and techniques or simulations and digital models to locate or generate precise data and information that supports the development of new understandings |
| <b>Select and evaluate data and information</b>                 | explain how located data or information was used   | explain the usefulness of located data or information   | explain why located data or information was selected   | assess the suitability of data or information using a range of appropriate given criteria  | assess the suitability of data or information using appropriate own criteria  | develop and use criteria systematically to evaluate the quality, suitability and credibility of located data or information and sources   |
| <b>Creating with ICT element</b>                                |  |   |  |  |   |   |
| <b>Generate ideas, plans and processes</b>                      | use ICT to follow or contribute to a simple plan for a solution  | use ICT to prepare simple plans to find solutions or answers to questions   | use ICT to generate ideas and plan solutions   | use ICT effectively to record ideas, represent thinking and plan solutions   | use appropriate ICT to collaboratively generate ideas and develop plans   | select and use ICT to articulate ideas and concepts, and plan the development of complex solutions  |
| <b>Generate solutions to challenges and learning area tasks</b> | use ICT as a creative tool to generate simple solutions, modifications or data representations for personal or school purposes | experiment with ICT as a creative tool to generate simple solutions, modifications or data representations for particular audiences or purposes | create and modify simple digital solutions, creative outputs or data representation/transformation for particular purposes | independently or collaboratively create and modify digital solutions, creative outputs or data representation/transformation for particular audiences and purposes | design and modify simple digital solutions, or multimodal creative outputs or data transformations for particular audiences and purposes following recognised conventions | Design, modify and manage complex digital solutions, or multimodal creative outputs or data transformations for a range of audiences and purposes                                 |

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| <b>Communicating with ICT element</b>              |   |   |   |   |   |   |
| <b>Collaborate, share and exchange</b>             | use purposefully selected ICT tools safely to view information shared by trusted adults                         | use purposefully selected ICT tools safely to share and exchange information with appropriate local audiences | use appropriate ICT tools safely to share and exchange information with appropriate known audiences | select and use appropriate ICT tools safely to share and exchange information and to safely collaborate with others   | select and use appropriate ICT tools safely to lead groups in sharing and exchanging information, and taking part in online projects or active collaborations with appropriate global audiences | select and use a range of ICT tools efficiently and safely to share and exchange information, and to collaboratively and purposefully construct knowledge   |
| <b>Understand computer mediated communications</b> | understand that messages are recorded, viewed or sent in computer mediated communications for others to receive | understand that computer mediated communications may be received later by the receiver                        | understand that computer mediated communications are directed to an audience for a purpose          | understand that particular forms of computer mediated communications and tools are suited to synchronous or asynchronous and one-to-one or group communications | understand that there are various methods of collaboration through computer mediated communications that vary in form and control   | understand that computer mediated communications have advantages and disadvantages in supporting active participation in a community of practice and the management of collaboration on digital materials |

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| <b>Managing and operating ICT element</b>   |   |   |  |  |  |   |
| <b>Select and use hardware and software</b> | identify and safely operate ICT systems to complete relevant simple specified tasks and seek help when encountering a problem | identify and safely operate a selected range of appropriate devices, software, functions and commands when operating an ICT system and attempt to solve a problem before seeking help | identify and independently operate a range of devices, software, functions and commands, taking into consideration ergonomics when operating appropriate ICT systems, and seek solutions when encountering a problem | select from, and safely operate, a range of devices to undertake specific tasks and use basic troubleshooting procedures to solve routine malfunctions | independently select and operate a range of devices by adjusting relevant software functions to suit specific tasks, and independently use common troubleshooting procedures to solve routine malfunctions | justify the selection of, and optimise the operation of, a selected range of devices and software functions to complete specific tasks, for different purposes and in different social contexts |
| <b>Understand ICT systems</b>               | identify common consumer ICT systems with input and output functions  | identify the main components of common consumer ICT systems, their fundamental functions, and describe them using basic ICT terminology   | identify and compare the use of the main components of different ICT systems   | identify, compare and classify basic ICT system components   | identify and compare networked ICT system components including between hardware, software and data   | apply an understanding of networked ICT system components to make changes to functions, processes, procedures and devices to fit the purpose of the solutions                                   |
| <b>Manage digital data</b>                  | save and retrieve digital data with support   | manage and maintain digital data with guidance  | manage and maintain digital data using common methods  | manage and maintain data on different storage mediums – locally and on networks  | manage and maintain data for groups of users using a variety of methods and systems  | manage and maintain data securely in a variety of storage mediums and formats   |