**Instruction:** List the title of the unit of work in the first column and then tick the check box of the content description/s addressed by it, which can be done electronically. Once completed, fill out the ‘Assessments’ table.   
If you need help completing the template view the curriculum mapping instructions document.

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|  | **Strand** | **Digital Systems** | | **Data and Information** | | | | | | | | **Creating Digital Solutions** | | | | | | | | | |
|  | **Content Description** | Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems [(VCDTDS045)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDS045) | | Analyse simple compression of data and how content data are separated from presentation  [(VCDTDI046)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI046) | | Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements  [(VCDTDI047)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI047) | | Analyse and visualise data to create information and address complex problems, and model processes, entities and their relationships using structured data [(VCDTDI048)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI048) | | Manage and collaboratively create interactive solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities  [(VCDTDI049)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI049) | | Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs  [(VCDTCD050)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD050) | | Design the user experience of a digital system, evaluating alternative designs against criteria including functionality, accessibility, usability and aesthetics  [(VCDTCD051)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD051) | | Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases [(VCDTCD052)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD052) | | Develop modular programs, applying selected algorithms and data structures including using an object-oriented programming language [(VCDTCD053)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD053) | | Evaluate critically how well student-developed solutions and existing information systems and policies take account of future risks and sustainability and provide opportunities for innovation  [(VCDTCD054)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD054) | |
| **Sequence of Lessons / Unit** | **Semester/ Year** | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # | CD | Achievement standard # |
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| **Levels 7 and 8 Achievement Standard** | **Levels 9 and 10 Achievement Standard**  Separated by line. Number in brackets, e.g. (3), can be used as an identifier in various parts of the template. |
| By the end of Level 8   * Students distinguish between different types of networks and their suitability in meeting defined purposes. * Students explain how text, image and sound data can be represented and secured in digital systems and presented using digital systems. * They analyse and evaluate data from a range of sources to model solutions and create information. * They manage the collaborative creation of interactive ideas, information and projects and use appropriate codes of conduct when communicating online. * Students define and decompose problems in terms of functional requirements and constraints. * They design user experiences and algorithms incorporating branching and iterations, and develop, test, and modify digital solutions. * Students evaluate information systems and their solutions in terms of meeting needs, innovation and sustainability. | By the end of Level 10   * Students explain the control and management of networked digital systems and the data security implications of the interaction between hardware, software and users. (1) * Students explain simple data compression, and why content data are separated from presentation. (2) * They take account of privacy and security requirements when selecting and validating data and use digital systems to analyse, visualise and model salient aspects of data. (3) * Students share and collaborate online, establishing protocols for the legal and safe use, transmission and maintenance of data and projects. (4) * Students define and decompose complex problems in terms of functional and non-functional requirements. (5) * They design and evaluate user experiences and algorithms, and develop and test modular programs, including an object-oriented program. (6) * Students evaluate their solutions and information systems in terms of risk, sustainability and potential for innovation. (7) |

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| **Assessments** | | |  |  | | |
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