Content Descriptions and Outcomes

Australian Curriculum Levels 7-8	Victorian Curriculum Levels 7-8
Digital Systems	**Digital Systems**
Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023)	Investigate how data are transmitted and secured in wired, wireless and mobile networks (VCDTDS035)
Representation of Data	**Data and Information**
Investigate how digital systems represent text, image and audio data in binary (ACTDIK024)	Investigate how digital systems represent text, image and sound data in binary (VCDTDI036)
Collecting, Managing and Analysing Data	**Data and Information**
Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025) Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (ACTDIP026)	Acquire data from a range of sources and evaluate their authenticity, accuracy and timeliness (VCDTDI037) Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (VCDTDI038)
Investigating and Defining	**Creating Digital Solutions**
Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)	Define and decompose real-world problems taking into account functional requirements and sustainability (economic, environmental, social), technical and usability constraints (VCDTCD040)
Generating and Designing	**Creating Digital Solutions**
Design the user experience of a digital system, generating, evaluating and communicating alternative designs (ACTDIP028) Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (ACTDIP029)	Design the user experience of a digital system, generating, evaluating and communicating alternative designs (VCDTCD041) Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (VCDTCD042)
Producing and Implementing	**Creating Digital Solutions**
Implement and modify programs with user interfaces involving branching, iteration and functions in a general purpose programming language (ACTDIP030)	Develop and modify programs with user interfaces involving branching, iteration and functions using a general-purpose programming language (VCDTCD043)
Evaluating	**Creating Digital Solutions**
Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability (ACTDIP031)	Evaluate how well student-developed solutions and existing information systems meet needs, are innovative and take account of future risks and sustainability (VCDTCD044)
Collaborating and Managing	**Data and Information**
Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032)	Manage, create and communicate interactive ideas, information and projects collaboratively online, taking safety and social contexts into account (VCDTDI039)

Achievement Standards

Australian Curriculum Levels 7-8	Victorian Curriculum Levels 7-8
By the end of Year 8, students distinguish between different types of networks and defined purposes. They explain how text, image and audio data can be represented, secured and presented in digital systems. Students plan and manage digital projects to create interactive information. They define and decompose problems in terms of functional requirements and constraints. Students design user experiences and algorithms incorporating branching and iterations, and test, modify and implement digital solutions. They evaluate information systems and their solutions in terms of meeting needs, innovation and sustainability. They analyse and evaluate data from a range of sources to model and create solutions. They use appropriate protocols when communicating and collaborating online.	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.