



**Progression of Skills**

2018 — 2019

Digital Technologies Coordinator

**[www.2simple.com.au](http://www.2simple.com.au/) *Contact us***

Raising Standards Through Creativity Tel:03 8001 5024

[Email: support@2simple.com.au](mailto:support@2simple.com.au)



**Statement**

**Outcome**

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| --- | --- | --- | --- | --- | --- |
| **Digital Technologies Knowledge and Understanding** | | **Digital Technologies Processes and Production Skills** | | | |
| **Recognise and explore digital systems (hardware and software components) for a purpose.** | **Recognise and explore patterns in data and represent data as pictures, symbols and diagrams.** | **Collect, explore and sort data, and use digital systems to present the data creatively.** | **Follow, describe and represent a sequence of steps and decisions**  **(algorithms) needed to solve simple problems.** | **Explore how people safely use common**  **information systems to meet information, communication and recreation needs.** | **Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments.** |
| **Students recognise and use a variety of hardware to access different software. They can easily login, navigate and save files in Purple Mash. Students**  **can capture and insert data by adding photos in Mashccams. They can recognise that digital**  **systems follow commands and can enter simple instructions to make an object move in 2Go and 2Code.** | **Students can engage, explore and collate digital content e.g. students can follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.** | **Students can sort, collate, edit and store digital content e.g. students can name, save and retrieve their work and follow simple instructions to search and select images to create texts, collect class data and presenting this as a visual display such as a pictograph in 2Count, enhancing text meaning by presenting texts in a visually engaging manner using 2Create**  **a Story, 2Connect and 2Publish.** | **Students understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. The can use algorithms to move objects in programs including 2Go and 2Code and follow instructions to add a photo to Mashcams and 2Publish templates.** | **Students understand what is meant by an information system and can identify examples that meet communication and recreation needs.** | **Using Purple Mash, students create and share information with their peers, teachers and the wider school community via individual or class blogs and digital display boards.** |

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| **Digital Technologies Knowledge and Understanding** | | **Digital Technologies Processes and Production Skills** | | | |  |
| **Identify and explore a** | **Recognise different types** | **Collect, access and** | **Define simple** | **Implement simple** | **Explain how student** | **Plan, create and** |
| **range of digital systems** | **of data and explore how** | **present different** | **problems, and** | **digital solutions as** | **solutions and existing** | **communicate ideas** |
| **with peripheral devices for** | **the same data can be** | **types of data using** | **describe and follow a** | **visual programs with** | **information systems** | **and information** |
| **different purposes, and** | **represented in different** | **simple software to** | **sequence of steps and** | **algorithms involving** | **meet common** | **independently and** |
| **transmit different types of data.** | **ways.** | **create information and solve problems.** | **decisions (algorithms) needed to solve them.** | **branching (decisions) and user input.** | **personal, school or community needs.** | **with others, applying agreed ethical and social protocols** |
| **Students access and explore** | **Students can create** | **Students demonstrate** | **Students can create** | **Students plan and** | **Students have a** | **Children have a** |
| **a range of digital systems.** | **databases in 2Investigate** | **an ability to organise** | **a simple program** | **design digital and** | **broad understanding** | **secure knowledge** |
| **They can record voice and** | **by collating a range of** | **data using a database** | **that achieves a** | **visual programs that** | **of different existing** | **of common online** |
| **add sounds and images** | **data according to different** | **such those in** | **specific purpose.** | **include responses** | **information systems.** | **safety rules and** |
| **into their tasks in Purple** | **categories. The can then** | **2Invesitigate and can** | **They can also identify** | **to specific events** | **They can identify how** | **can apply this by** |
| **Mash (2Animate, 2Connect** | **present data in a variety** | **retrieve specific data** | **and correct some** | **and initiate specific** | **these systems meet** | **demonstrating the** |
| **2Publish Plus). Students can** | **of creative manners using** | **for conducting simple** | **errors, e.g. Debug** | **actions. For example,** | **personal, school and** | **safe and respectful** |
| **send and share files using**  **2Email, 2Blog and digital** | **2Publish Plus or 2Connect.**  **Students explore code** | **online searches.**  **Students can edit** | **Challenges: Chimp.**  **Children’s program** | **they can write a cause**  **and effect sentence** | **community needs.** | **use of different**  **technologies,** |
| **display boards and they are** | **and symbols through** | **more complex digital** | **designs display a** | **of what will happen** |  | **online services** |
| **confident when saving and** | **investigations of past and** | **data such as music** | **growing awareness of** | **in a program and can** |  | **and collaborative** |
| **retrieving their work from** | **present use by Indigenous** | **compositions within** | **the need for logical,** | **represent this using** |  | **environments such as** |
| **folders in Purple Mash.** | **Australians.** | **2Sequence. Students**  **are confident when**  **creating,** | **programmable steps.**  **Students can follow instructions to add a** | **branching diagrams in 2Question.** |  | **2Connect and 2Write.** |
|  |  | **naming, saving and** | **range of media in** |  |  |  |
|  |  | **retrieving content.** | **their digital content**  **including photos, text** |  |  |  |
|  |  |  | **and sound.** |  |  |  |

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| **Examine the main components of common digital systems and how they may connect together to form networks to transmit data.** | **Examine how whole numbers are used to represent all data in digital systems.** | **Acquire, store and validate different types of data, and use a range of software to interpret**  **and visualise data to create information.** | **Define problems in terms of data and functional requirements drawing on previously solved problems.** | **Design a user interface for a digital system.** | **Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition).** | **Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input.** | **Explain how student solutions and existing information systems are sustainable and meet current**  **and future local community needs.** | **Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social and technical protocols.** |
| **Students can describe internal and external components of digital systems.**  **They can use external**  **components such as keyboards, microphones and cameras to input data to create digital texts and then save them in their Purple Mash folders, understanding they can access their saved work from any device with their secure login details.** | **Students understand binary code represents numbers using 0s and 1s and**  **what this denotes in hardware and robotics. They can convert whole numbers to binary code and can apply binary to represent the state of an object as active of inactive in 2Code.** | **Students use digital systems to validate data, for example setting data types in a 2Calculate**  **to make sure an amount is input correctly. They recognise the difference between text, numeric and date formats when using such spreadsheets. Students can use software such as 2Investigate to**  **collect and collate data to visualise trends.** | **Students can turn a more complex programming task into an algorithm by identifying the important aspects of the task and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs.**  **Students test and debug their program as they go and use logical**  **methods to identify and rectify bugs.** | **Students make clear connections to the audience when designing and creating digital content.**  **They design and create their own blogs to become a content**  **creator on the internet, e.g. 2Blog. Students use criteria to evaluate the quality of digital solutions and can identify improvements, making some refinements.** | **Students can follow, modify and describe designs of games involving simple algorithms using flowcharts such as 2Chart. They experiment**  **with ways of representing different options using branching diagrams in 2Question.**  **Students explore and experiment with ‘IF’ and ‘REPEAT’**  **statements using flowcharts and branch diagrams.** | **Students design and create simple computer games that involve decisions and repetitions requiring user input to make selections.**  **They make changes to visual programming language to**  **find solutions to problems for example, taking into consideration size of icons for**  **those who are visually impaired.** | **Students compare past and present information systems. They apply knowledge of these systems when designing new solutions**  **to address community needs. Students consider environmental and ethical opportunities and consequences when analysing past and present, or designing.** | **Students demonstrate the safe and**  **respectful use of a range of different technologies and online services independently and collaboratively.**  **They identify more discreet inappropriate behaviours**  **through developing critical thinking,**  **e.g. 2Respond activities. They recognise the**  **value in preserving their privacy when online for their.** |