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|  | Strand | | Knowledge and understanding | | | | Strand: Processes and production skills | | | | | | | | | | |
|  |  | | Digital systems | | Representation of data | | | Collecting, managing and analysing data | | *Creating digital solutions by:* | | | | | | | |
| Investigating and defining | | Evaluating | | | Collaborating and managing | | |
|  | **Content Description** | | Recognise and explore digital systems (hardware and software components) for a purpose (ACTDIK001 ) | | Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002 ) | | | Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003) | | Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004) | | | Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005) | | | Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments (ACTDIP006) | |
| **Sequence of Lessons / Unit** | **Approx. time rq’d** | **Year A or B** | CD | Achievement standard # | CD | Achievement standard # | | CD | Achievement standard # | CD | Achievement standard # | | CD | Achievement standard # | | CD | Achievement standard # |
| Hardware and software | 5 | F-1 |  | 1 |  |  | |  |  |  |  | |  |  | |  |  |
| Changes in technology | 6 | 2 |  | 1 |  |  | |  |  |  |  | |  |  | |  |  |
| Data is all around us | 5 | F-1 |  |  |  | 2 | |  | 4 |  |  | |  |  | |  |  |
| Exploring data | 5 | 2 |  |  |  | 2 | |  | 4 |  |  | |  |  | |  |  |
| An intro to algorithms | 5 | F-1 |  | 1 |  |  | |  |  |  | 3 | |  |  | |  |  |
| Pre-programming | 7 | 2 |  | 1 |  |  | |  |  |  | 3 | |  |  | |  |  |
| Online safety | 5 | F-1 |  |  |  |  | |  |  |  |  | |  | 5 | |  | 5 |
| Staying safe online | 5 | 2 |  |  |  |  | |  |  |  |  | |  | 5 | |  | 5 |

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| **Years F-2 Achievement Standard** | **Years 3 and 4 Achievement Standard** |
| By the end of Year 2   * Students identify how common digital systems (hardware and software) are used to meet specific purposes. (1) * They use digital systems to represent simple patterns in data in different ways. (2) * Students design solutions to simple problems using a sequence of steps and decisions. (3) * They collect familiar data and display them to convey meaning. (4) * They create and organise ideas and information using information systems, and share information in safe online environments. (5) | By the end of Year 4   * Students describe how a range of digital systems (hardware and software) and their peripheral devices can be used for different purposes. (1) * They explain how the same data sets can be represented in different ways. (2) * Students define simple problems, design and implement digital solutions using algorithms that involve decision-making and user input. (3) * They explain how the solutions meet their purposes. (4) * They collect and manipulate different data when creating information and digital solutions. (5) * They safely use and manage information systems for identified needs using agreed protocols and describe how information systems are used. (6) |