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| **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 # |
| **Digital Systems Communicate** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Data: Here to there
 | Semester 1 / Grade 5 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Data representation
 | Semester 1 / Grade 5 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Our World** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Habitat analysis | Semester 2 / Grade 5 |  |  |  |  |  | 3 |  | 3 |  |  |  |  |  |  |  |  |  |  |
| **Draw-a-Shape** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Define a problem
 | Semester 1 / Grade 6 |  |  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |
| 1. Create interface and algorithms
 | Semester 1 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  | 4 |  | 4 |  |  |  |  |
| 1. Create code based on algorithms
 | Semester 1 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |
| 1. Reflection
 | Semester 1 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |

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| By the end of Level 4* Students describe how a range of digital systems and their peripheral devices can be used for different purposes.
* Students explain how the same data sets can be represented in different ways.
* They collect and manipulate different data when creating information and digital solutions.
* They plan and safely use information systems when creating and communicating ideas and information, applying agreed protocols.
* Students define simple problems, and design and develop digital solutions using algorithms that involve decision-making and user input.
* They explain how their developed solutions and existing information systems meet their purposes.
 | By the end of Level 6* Students explain the functions of digital system components and how digital systems are connected to form networks that transmit data. (1)
* Students explain how digital systems use whole numbers as a basis for representing a variety of data types. (2)
* They manage the creation and communication of ideas, information and digital projects collaboratively using validated data and agreed protocols. (3)
* Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. (4)
* They incorporate decision-making, repetition and user interface design into their designs and develop their digital solutions, including a visual program. (5)
* Students explain how information systems and their developed solutions meet current and future needs taking sustainability into account. (6)
 | 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.
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* Students evaluate information systems and their solutions in terms of meeting needs, innovation and sustainability.
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| **Level 5 Assessments** |  | **Level 6 Assessments** |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
| **Digital Systems Communicate**1. Data: Here to there
 | Report: Explain how data can be transmitted between two devices. | 1 |  | **Draw-a-Shape**1. Define a problem
 | Report: Students define a problem and present findings. | 4 |
| **Digital Systems Communicate**1. Data representation
 | Report: After investigating the Binary number system, students write a message using Binary and Unicode. | 2 |  | **Draw-a-Shape**1. Create interface and algorithms
 | Folio of user interfaces and algorithms: Drawing selected shape/s. | 4 |
| **Our World**Habitat analysis | Report: Investigate and present data on a variety of habitats and discuss those suitable for animal survival. | 3 |  | **Draw-a-Shape**1. Create code based on algorithms
 | Folio of evidence of students using algorithms to create code to draw shapes. | 5 |
|  |  |  |  | **Draw-a-Shape**1. Reflection
 | Report: Reflection/evaluation prompt.*Did your shape/s draw correctly?**What were the challenges?* | 6 |

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| Computers and networks | Semester 1 / Grade 6 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Binary numbers | Semester 1 / Grade 6 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All about us | Semester 1 / Grade 6 |  |  |  |  |  | 3 |  | 3 |  |  |  |  |  |  |  |  |  |  |
| Programming project* Analysis and design
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  | 4 |  | 5 |  | 5 |  |  |  |  |
| Programming project* Development
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |
| Programming project* Evaluation
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |

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| Computers and networks | Report: Student created presentation on computer components and networks. | 1 |  | Programming project* Analysis and design
 | Folio: Students analyse functional requirements, design user interfaces and algorithms. | 4, 5 |
| Binary numbers | Test: Students complete a test on binary numbers. | 2 |  | Programming project* Development
 | Folio of programs: Students submit working programs. | 5 |
| All about us | Project report: Students create an infographic based on findings of surveys completed by other students in the class. | 3 |  | Programming project* Evaluation
 | Report: Student evaluation of how they met requirements. | 6 |

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| **Digital Systems Investigation** | Semester 1 / Grade 5 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Numbers Activity** | Semester 1 / Grade 5 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Student Survey Project**1. Collect and interpret data
 | Semester 2 / Grade 5 |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| **Student Survey Project**1. Communication of findings
 | Semester 2 / Grade 5 |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| **Programming Project**1. Analysis - Requirements
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |
| **Programming Project**1. Design
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  | 4 |  | 4 |  |  |  |  |
| **Programming Project**1. Development
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |
| **Programming Project**1. Evaluation
 | Semester 2 / Grade 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |

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| **Level 5 Assessments** |  | **Level 6 Assessments** |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
| **Digital Systems Investigation** | Mini project involving the investigation of digital systems components and networks | 1 |  | **Programming Project**1. Analysis
 | Table* Listing and discussion of functional requirements
 | 4 |
| **Numbers Activity** | Test involving questions about the binary number system | 2 |  | **Programming Project**1. Design
 | Mock-ups and algorithms | 4 |
| **Student Survey Project**1. Collect and interpret data
 | Questionnaire about school community and development of a spreadsheet with validated data and charts on findings | 3 |  | **Programming Project**1. Development
 | Software solution and testing | 5 |
| **Student Survey Project**1. Communication of findings
 | Communication of findings on school blog or LMS | 3 |  | **Programming Project**1. Evaluation
 | Written report* Evaluation of how the software solution meets functional requirements
 | 6 |