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|  | **Strand** | **Digital Systems** | **Data and Information** | **Creating Digital Solutions** |
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| Internet of Things (IoT) | Semester 1 / Year 9 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Creating web sites | Semester 1 / Year 9 |  |  |  | 2 |  | 3 |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |
| Spreadsheets | Semester 1/ Year 9 |  |  |  |  |  | 3 |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Python programming | Semester 1 / Year 9 |  |  |  |  |  |  |  |  |  |  |  | 5 |  | 6 |  | 6 |  | 6 |  |  |
| Programming evaluation | Semester 1 / Year 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 |

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| By the end of Level 8* Students distinguish between different types of networks and their suitability in meeting defined purposes.
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* 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.
 | 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)
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| **Level 9 Assessments** |  | **Level 9 Assessments** |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
| Internet of Things | Report:Networking requirements for IoT. | 1 |  | Python programming | Folio/Test:Submission of programming exercises and a practical test. | 5, 6 |
| Creating web sites | Folio:Submission of a simple web site that presents data and uses CSS. | 2, 3, 4 |  | Programming evaluation | Report:Discussion as to how the programming solution met requirements. | 7 |
| Spreadsheets | Folio:Submission of spreadsheets and graphs. | 3 |  |  |  |  |

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| Networks Task | Semester 1 / Year 10 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Image Optimisation  | Semester 1 / Year 10 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Data and Collaboration Task | Semester 1 / Year 10 |  |  |  |  |  | 3 |  | 3 |  | 4 |  |  |  |  |  |  |  |  |  |  |
| Design Task | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  |  |  | 5 |  | 6 |  | 6 |  |  |  |  |
| Programming Task | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  | 7 |

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| **Level 10 Assessments** |  | **Level 10 Assessments** |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
| Networks Task | Written report: Students respond to network case study and test creating a network diagram using an online or offline tool that identifies key components, relationships and transmission media.  | 1 |  | Design Task | Folio: Students decompose a problem into functional and non-functional requirements. They design a user interface and select a preferred design using criteria. Produce and test algorithms for the solution. | 5,6 |
| Image Optimisation | Report and folio: Students record and investigate various compression techniques to optimise images.  | 2 |  | Programming Task | Folio: Students progressively create and test modules using testing tables and other techniques. They then evaluate how software solutions met the requirements and wider needs such as risk, sustainability and innovation. | 6,7 |
| Data and Collaboration Task | Folio: Students acquire data via a survey, manipulate data and present findings in the form of a collaborative web site that demonstrates an understanding of CSS layout and formatting as well as working through agreed protocols ensuring data and security are protected.  | 3,4 |  |  |  |  |

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| **Network Theory** | Semester 1 / Year 9 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Imaging Editing** | Semester 1 / Year 9 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Community Project** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Research and data collection
 | Semester 1 / Year 9 |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Creating posters
 | Semester 1 / Year 9 |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| **Programming Project** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Project management
 | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |
| 1. Analysis - Requirements
 | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  |  |  |  |  |
| 1. Design & development
 | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  | 6 |  | 6 |  |  |
| 1. Evaluation
 | Semester 1 / Year 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 |

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| **Level 9 Assessments** |  | **Level 10 Assessments** |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
| **Network Theory** | Case study and network diagram using MS Visio | 1 |  | **Programming Project**1. Project management
 | Project management plan* Gantt chart and evidence of online collaboration
 | 4 |
| **Imaging Editing** | Written report and series of manipulated images demonstrating an understanding of compression | 2 |  | **Programming Project**1. Analysis - Requirements
 | Written Report* Discussion of software solution requirements
 | 5 |
| **Community Project**1. Research and data collection
 | Written report and questionnaire* Research into a community issue
 | 3 |  | **Programming Project**1. Design and development
 | Mock-ups, algorithms, testing table and software solution | 6 |
| **Community Project**1. Creating posters
 | Posters promoting community issues using software | 3 |  | **Programming Project**1. Evaluation
 | Written report* Student evaluation of how software solution met requirements
 | 7 |