**KS1 Computing curriculum**

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| **Computing objective** | **Strand**  | **Year 1** |
| **Online Safety 1.1** | **Grouping and sorting 1.2** | **Pictograms 1.3** | **Lego builders 1.4** | **Maze Explorers 1.5** | **Animated Stories 1.6** | **Coding 1.7** | **Spreadsheets 1.8** | **Technology outside school 1.9** |  |
| understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions | **Computer science** |  |  |  |  |  |  |  |  |  |  |
| create and debug simple programs |  |  |  |  |  |  |  |  |  |  |
| use logical reasoning to predict the behaviour of simple programs |  |  |  |  |  |  |  |  |  |  |
| use technology purposefully to create, organise, store, manipulate and retrieve digital content | **Information Technology** |  |  |  |  |  |  |  |  |  |  |
| recognise common uses of information technology beyond school | **Digital Literacy** |  |  |  |  |  |  |  |  |  |  |
| use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |  |  |  |  |  |  |  |  |  |  |

**KS1 Computing curriculum**

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| **Computing objective** | **Strand** | **Year 2** |
| **Coding 2.1** | **Online Safety 2.2** | **Spreadsheets 2.3** | **Questioning 2.4** | **Effective Searching 2.5** | **Creating Pictures 2.6** | **making Music 2.7** | **Presenting Ideas 2.8** |
| understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions | **Computer Science** |  |  |  |  |  |  |  |  |
| create and debug simple programs |  |  |  |  |  |  |  |  |
| use logical reasoning to predict the behaviour of simple programs |  |  |  |  |  |  |  |  |
| use technology purposefully to create, organise, store, manipulate and retrieve digital content | **Information Technology** |  |  |  |  |  |  |  |  |
| recognise common uses of information technology beyond school | **Digital Literacy** |  |  |  |  |  |  |  |  |
| use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |  |  |  |  |  |  |  |  |

**KS2 Computing Curriculum**

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| **Computing objective** | **Strand** | **Year 3** |
| **Coding 3.1** | **Online Safety 3.2** | **Spreadsheets 3.3** | **Touch Typing 3.4** | **Email 3.5** | **Branching Databases 3.6** | **Simulations 3.7** | **Graphing 3.8** |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | **Computer Science** |  |  |  |  |  |  |  |  |
| use sequence, selection, and repetition in programs; work with variables and various forms of input and output |  |  |  |  |  |  |  |  |
| use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs |  |  |  |  |  |  |  |  |
| understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration |  |  |  |  |  |  |  |  |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | **Information Technology** |  |  |  |  |  |  |  |  |
| select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information |  |  |  |  |  |  |  |  |
| use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | **Digital Literacy** |  |  |  |  |  |  |  |  |

**KS2 Computing Curriculum**

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| **Computing objective** | **Strand** | **Year 4** |
| **Coding 4.1** | **Online Safety 4.2** | **Spreadsheets 4.3** | **Writing for different Audiences 4.4** | **Logo** **4.5**  | **Animation 4.6** | **Effective searching 4.7** | **Hardware Investigators 4.8** | **Making Music** **4.9** |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | **Computer Science** |  |  |  |  |  |  |  |  |  |
| use sequence, selection, and repetition in programs; work with variables and various forms of input and output |  |  |  |  |  |  |  |  |  |
| use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs |  |  |  |  |  |  |  |  |  |
| understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration |  |  |  |  |  |  |  |  |  |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | **Information Technology** |  |  |  |  |  |  |  |  |  |
| select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information |  |  |  |  |  |  |  |  |  |
| use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | **Digital Literacy** |  |  |  |  |  |  |  |  |  |

**KS2 Computing Curriculum**

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| **Computing objective** | **Strand** | **Year 5** |
| **Coding 5.1** | **Online Safety 5.2** | **Spreadsheets 5.3** | **Databases 5.4** | **Game Creator 5.5** | **3D Modelling 5.6** | **Concept Maps 5.7** | **Word Processing 5.8** |
| Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. | **Computer Science** |  |  |  |  |  |  |  |  |
| Use sequence, selection and repetition in programs; work with variables and various forms of input and output. |  |  |  |  |  |  |  |  |
| Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. |  |  |  |  |  |  |  |  |
| Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. |  |  |  |  |  |  |  |  |
| Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. | **Information Technology** | **Taught in unit 4.7 and will be utilised and applied in many areas of the curriculum when using the internet** |
| Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. |  |  |  |  |  |  |  |  |
| Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |  |  |  |  |  |  |  |  |  |

**KS2 Computing Curriculum**

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| **Computing objective** | **Strand** | **Year 6** |
| **Coding 6.1** | **Online Safety 6.2** | **Spreadsheets 6.3** | **Blogging 6.4** | **Text Adventures****6.5** | **Networks** **6.6** | **Quizzing** **6.7** | **Understanding Binary 6.8** | **Spreadsheets****6.9** |
| Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. | **Computer Science** |  |  |  |  |  |  |  |  |  |
| Use sequence, selection and repetition in programs; work with variables and various forms of input and output. |  |  |  |  |  |  |  |  |  |
| Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. |  |  |  |  |  |  |  |  |  |
| Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. |  |  |  |  |  |  |  |  |  |
| Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. | **Information Technology** |  |  |  |  |  |  |  |  |  |
| Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. |  |  |  |  |  |  |  |  |  |
| Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |  |  |  |  |  |  |  |  |  |  |