Iveson Primary School
Where aspirations soar

# Computing Long Term Plan

| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|---|---|---|---|---|---|
| Nursery | There are no requirements to teach Computing in EYFS. However, the children will experience a range of technology through push/pull toys, switches and wind-up toys, Bee-Bots, Interactive Whiteboards, iPads and photography and Video to develop confidence in using technology. The 'Progression of Skills' document outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four-Year-Olds and Reception to match the programme of study for computing. These statements are worked on throughout the school year. | | | | | |
| Reception | | | | | | |
| Unit | **Computing systems and networks** | **Creating media** | **Programming A** | **Data and information** | **Creating media** | **Programming B** |
| One | *1.1 - Technology around us* | *1.2 - Digital painting* | *1.3 - Moving a robot* | *1.4 - Grouping data* | *1.5 - Digital writing* | *1.6 - Programming animations* |
| Two | *2.1 - Information technology around us* | *2.2 - Digital photography* | *2.3 - Robot algorithms* | *2.4 - Pictograms* | *2.5 - Digital music* | *2.6 - Programming quizzes* |
| Three | *3.1 - Connecting computers* | *3.2 - Stop-frame animation* | *3.3 - Sequencing sounds* | *3.4 - Branching databases* | *3.5 - Desktop publishing* | *3.6 - Events and actions in programs* |
| Four | *4.1 - The internet* | *4.2 - Audio production* | *4.3 - Repetition in shapes* | *4.4 - Data logging* | *4.5 - Photo editing* | *4.6 - Repetition in games* |
| Five | *5.1 - Systems and searching* | *5.2 - Video production* | *5.3 - Selection in physical computing* | *5.4 - Flat-file databases* | *5.5 - Introduction to vector graphics* | *5.6 - Selection in quizzes* |
| Six | *6.1 - Communication and collaboration* | *6.2 - Webpage creation* | *6.3 - Variables in games* | *6.4 - Introduction to spreadsheets* | *6.5 - 3D modelling* | *6.6 - Sensing movement* |

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# National Curriculum Coverage

| National Curriculum Coverage — Years 1 and 2 | 1.1 Technology around us | .2 Digital painting | 1.3 Moving a robot | 1.4 Grouping data | 1.5 Digital writing | 1.6 Programming animations | 2.1 Information technology around us | 2.2 Digital photography | 2.3 Robot algorithms | 2.4 Pictograms | 2.5 Digital music | 2.6 Programming quizzes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions | | | ✓ | | | ✓ | | | ✓ | | | ✓ |
| 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 | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Recognise common uses of information technology beyond school | ✓ | | ✓ | | | | ✓ | ✓ | | | | |
| 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 | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | |

| National Curriculum Coverage — Years 3 and 4 | 3.1 Connecting computers | 3.2 Stop-frame animation | 3.3 Sequencing sounds | 3.4 Branching databases | 3.5 Desktop publishing | 3.6 Events and actions in programs | 4.1 The internet | 4.2 Audio production | 4.3 Repetition in shapes | 4.4 Data logging | 4.5 Photo editing | 4.6 Repetition in games |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | | | ✓ | | | ✓ | | | ✓ | | | ✓ |
| 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 | | | | | ✓ | | ✓ | ✓ | | | ✓ | |
| 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 | | ✓ | | ✓ | | | ✓ | ✓ | | | ✓ | |

| National Curriculum Coverage — Years 5 and 6 | 5.1 Systems and searching | 5.2 Video production | 5.3 Selection in physical computing | 5.4 Flat-file databases | 5.5 Introduction to vector graphics | 5.6 Selection in quizzes | 6.1 Communication and collaboration | 6.2 Webpage creation | 6.3 Variables in games | 6.4 Introduction to spreadsheets | 6.5 3D modelling | 6.6 Sensing movements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | | | ✓ | | | ✓ | ✓ | | ✓ | | | ✓ |
| 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 | | ✓ | | ✓ | | | | ✓ | | | | |
| 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 | ✓ | ✓ | | | | | | ✓ | ✓ | | ✓ | |