

Booth Wood Primary School Computing Curriculum Mat

Key: **D** - Data Handling (Information Technology) **P** - Publishing Digital Content (Information Technology) **C** - Computing (Computer Science) **ES** - e-Safety (Digital Literacy)

| | Autumn | | Spring | | Summer | |
|-------------------|---|---|--|---|--|--|
| | Term One | Term Two | Term One | Term Two | Term One | Term Two |
| EYFS | Throughout the EYFS Stage, pupils should be taught how to operate an iPad to access and take photographs, use educational applications and the importance of using technology safely. | | | | | |
| Year One | ES - Online Safety (Rising Stars, Unit 1.1 to 1.6) | Introduction to the 1:1 iPad scheme and the functions of the device / apps such as Showbie. | C - Moving a Robot (Teach Computing) | D - Grouping Data (Teach Computing) | P - Digital Painting (Teach Computing) | C - Introduction to Animation (Teach Computing) |
| Year Two | ES - Online Safety (Rising Stars, Unit 2.1 to 2.6) | C - Robot Algorithms (Teach Computing) | P - Making Music (Teach Computing) | D - Pictograms (Teach Computing) | C - An Introduction to Quizzes (Teach Computing) | D - IT Around Us (Teach Computing) |
| Year Three | ES - Online Safety (Rising Stars, Unit 3.1 to 3.6) | D - Branching Databases (Teach Computing) | P - Animation (Teach Computing) | C - Sequence in Music (Teach Computing) | D - Connecting Computers (Teach Computing) | C - Events and Actions (Teach Computing) |
| Year Four | ES - Online Safety (Rising Stars, Unit 4.1 to 4.6) | P - Audio Editing (Teach Computing) | C - Repetition in Shapes (Teach Computing) | D - Data Logging (Teach Computing) | C - Repetition in Games (Teach Computing) | D - The Internet (Teach Computing) |
| Year Five | ES - Online Safety (Rising Stars, Unit 5.1 to 5.6) | C - Spheros: Bridge Material Challenge (SpheroEDU) | D - Flat-file Databases (Teach Computing) | P - Vector Drawing (Teach Computing) | D - Sharing Information (Teach Computing) | C - Selection in Quizzes (Teach Computing) |
| Year Six | C - Variables in Games (Teach Computing) | D - Spreadsheets (Teach Computing) | ES - Online Safety (Rising Stars, Unit 6.1 to 6.6) | C - Sensing (Teach Computing) | D - Internet Communication (Teach Computing) | P - Children apply all skills learnt throughout their time at school to create an end of year booklet, presentation or movie. |

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Year 1 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|---|---|--|---|--|--|
| Unit Title | ES - Online Safety (Rising Stars, Unit 1.1 to 1.6) | iPad Introduction | C - Moving a Robot (Teach Computing) | D - Grouping Data (Teach Computing) | P - Digital Painting (Teach Computing) | C - Introduction to Animation (Teach Computing) |
| Skills Used | <ul style="list-style-type: none"> Use technology 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. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology 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. | <ul style="list-style-type: none"> 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. Recognise common uses of information technology beyond school. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology 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. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <p><u>Art Link</u></p> <ul style="list-style-type: none"> To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space. About the work of a range of artists, craft makers, and designers, describing the differences and similarities between different practices and disciplines and making links to their own work. | <ul style="list-style-type: none"> 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. |

S.M.I.L.E

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Year 2 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|---|---|--|---|--|---|
| Unit Title | ES - Online Safety (Rising Stars, Unit 2.1 to 2.6) | C - Robot Algorithms (Teach Computing) | P - Making Music (Teach Computing) | D - Pictograms (Teach Computing) | C - An Introduction to Quizzes (Teach Computing) | D - IT Around Us (Teach Computing) |
| Skills Used | <ul style="list-style-type: none"> Use technology 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. | <ul style="list-style-type: none"> 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 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. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <p><u>Music Link</u></p> <ul style="list-style-type: none"> Play tuned and untuned instruments manually. Listen with concentration and understanding to a range of high-quality live and recorded music. Experiment with, create, select and combine sounds using the inter-related dimensions of music. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology 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. | <ul style="list-style-type: none"> 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. | <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology 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. |

S.M.I.L.E

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Year 3 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|--|--|--|---|---|--|
| Unit Title | ES - Online Safety (Rising Stars, Unit 3.1 to 3.6) | D - Branching Databases (Teach Computing) | P - Animation (Teach Computing) | C - Sequence in Music (Teach Computing) | D - Connecting Computers (Teach Computing) | C - Events and Actions (Teach Computing) |
| Skills Used | <ul style="list-style-type: none"> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | <ul style="list-style-type: none"> 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. | <ul style="list-style-type: none"> 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. | <ul style="list-style-type: none"> 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. 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 present data and information. | <ul style="list-style-type: none"> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. 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. 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. | <ul style="list-style-type: none"> 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. 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. |

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Year 4 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|--|---|--|---|--|---|
| Unit Title | ES - Online Safety (Rising Stars, Unit 4.1 to 4.6) | P - Audio Editing (Teach Computing) | C - Repetition in Shapes (Teach Computing) | D - Data Logging (Teach Computing) | C - Repetition in Games (Teach Computing) | D - The Internet (Teach Computing) |
| Skills Used | <ul style="list-style-type: none"> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | <ul style="list-style-type: none"> Use technology effectively, appreciate how results are select 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. <p><u>Science Link</u></p> <ul style="list-style-type: none"> Recognise that sounds get fainter as the distance from the source increase. | <ul style="list-style-type: none"> 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. 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. | <ul style="list-style-type: none"> 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. <p><u>Science Link</u></p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. They should learn how to use equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse data. | <ul style="list-style-type: none"> 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. 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. | <ul style="list-style-type: none"> 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 technology effectively, appreciate how results are select 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. <p><u>PSHE Link</u></p> <ul style="list-style-type: none"> Evaluating content for honesty and accuracy. |

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Year 5 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|--|--|--|--|---|--|
| Unit Title | ES - Online Safety (Rising Stars, Unit 5.1 to 5.6) | C - Spheros: Bridge Material Challenge (Teach Computing) | D - Flat-file Databases (Teach Computing) | P - Vector Drawing (Teach Computing) | D - Sharing Information (Teach Computing) | C - Selection in Quizzes (Teach Computing) |
| Skills Used | <ul style="list-style-type: none"> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | <ul style="list-style-type: none"> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs. | <ul style="list-style-type: none"> Use technology effectively, appreciate how results are select 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. | <ul style="list-style-type: none"> 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. | <ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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. 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. | <ul style="list-style-type: none"> 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. |

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Year 6 - Progression of Skills Per Unit

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-------------|--|--|--|--|--|--|
| Unit Title | C - Variables in Games (Teach Computing) | D - Spreadsheets (Teach Computing) | ES - Online Safety (Rising Stars, Unit 6.1 to 6.6) | C - Sensing (Teach Computing) | D - Internet Communication (Teach Computing) | P - Children apply all skills learnt throughout their time at school to create an end of year booklet, presentation or movie. |
| Skills Used | <ul style="list-style-type: none"> 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. 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. | <ul style="list-style-type: none"> 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. <p><u>Maths Link</u></p> <ul style="list-style-type: none"> Solve problems involving addition, subtraction, multiplication and division. | <ul style="list-style-type: none"> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | <ul style="list-style-type: none"> 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. 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. | <ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | <ul style="list-style-type: none"> 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. |