



Computing LTP



EYFS

EYFS access Computing through their Early Years curriculum – this is the beginning of their Computing journey and forms the building blocks for them to access Computing throughout their learning journey. Computational thinking skills such as; debugging, sequencing, reasoning and tinkering are all explored through their learning. For example: sequencing is accessed through maths lessons where children may continue a pattern of objects or shapes, debugging is accessed through problem solving activities and sequencing is accessed through ordering instructions.

EYFS also have the support of the Barefoot Early Years activities. These build on current good practice of encouraging play based learning. We want to promote effective learning in the classroom where children can play, explore and actively learn have the opportunity to create and critically think about a challenge they face and so continue to be a motivated learner.

Year 1

National Curriculum Objective	Strand	Units
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	1.2 1.4 1.5 1.7
Create and debug simple programs	Computer Science	1.5 1.7
Use logical reasoning to predict the behaviour of simple programs.	Computer Science	1.5 1.7
Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Information Technology	1.3 1.6 1.7 1.8
Recognise common uses of information technology beyond school	Digital Literacy	1.9
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.	Digital Literacy	1.1

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1.1 Exploring Purple Mash & Online safety 1.9 Tech outside the school Online Safety	1.3 Pictograms 1.8 Spreadsheets Online Safety	1.6 Animated Story books Online safety	1.7 Coding Online Safety	1.4 Lego Builders Online Safety	1.2 Grouping & Sorting 1.5 Maze Explorers Online Safety

Year 2

National Curriculum Objective	Strand	Units
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	2.1
Create and debug simple programs	Computer Science	2.1
Use logical reasoning to predict the behaviour of simple programs.	Computer Science	2.1
Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Information Technology	2.3 2.4 2.5 2.6 2.7 2.8
Recognise common uses of information technology beyond school	Digital Literacy	2.5*
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.	Digital Literacy	2.2*

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
2.1 Coding Online Safety	2.6 Creating Pictures Online Safety	2.4 Questioning Online Safety	2.5 Effective Searching Online Safety	2.8 Presenting Ideas Online Safety	2.7 Making Music 2.3 Spreadsheets Online Safety

Year 3

National Curriculum Objective	Strand	Units
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	3.1
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	3.1
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Computer Science	3.1
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.	Computer Science	3.5
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.	Information Technology	3.4 3.5 3.6 3.7 3.8
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Digital Literacy	3.2 3.5

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
3.1 Coding Online safety	3.4 Touch-Typing Online Safety	3.5 Email Online Safety	3.7 Simulations Online safety	3.9 PowerPoint Online Safety	3.3 Spreadsheets 3.6 Branching Databases Online Safety

Year 4

National Curriculum Objective	Strand	Units
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	4.1 4.5
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	4.1 4.5
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Computer Science	4.1 4.5
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.	Computer Science	4.2 4.7 4.8
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Information Technology	4.7
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.	Information Technology	4.1 4.3 4.4 4.6 4.9
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Digital Literacy	4.2*

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
4.1 Coding Online Safety	4.9 Making Music Online Safety	4.4 Writing for Different Audiences Online Safety	4.5 Logo Online Safety	4.6 Animation 4.7 Effective Searching Online Safety	4.3 Spreadsheets 4.8 Hardware Investigators Online safety

Year 5

National Curriculum Objective	Strand	Units
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	5.1 5.5
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	5.1
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Computer Science	5.1
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.	Computer Science	5.2
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Information Technology	Various Search technologies are taught more specifically in unit 4.7. Children will utilize this knowledge in many Internet based sessions in all areas of the curriculum.
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.	Information Technology	5.1 5.3 5.4 5.5 5.6 5.7 5.8
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Digital Literacy	5.2 and discussed in other units

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
5.8 Word Online Safety	5.7 Concept Maps Online Safety	5.5 Game Creator Online Safety	5.1 Coding Online safety	5.6 3D Modelling Online Safety	5.4 Databases Online Safety

Year 6

National Curriculum Objective	Strand	Units
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	6.1 6.5, 6.9
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	6.1
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	6.5
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Computer Science	6.1 6.5, 6.9
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.	Computer Science	6.2
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.	Computer Science	6.4
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.	Computer Science	6.6
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Information Technology	6.2
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.	Information Technology	6.1, 6.3 6.4, 6.5 6.7, 6.9
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*.	Digital Literacy	6.2 6.4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
6.1 Coding Online Safety	6.4 Blogging Online Safety	6.7 Quizzing Online Safety	6.5 Text Adventures Online Safety	6.3 Spreadsheets Online Safety	6.9 Excel Online Safety