Computing Curriculum Map

Year 1	Autumn 1 Technology around us	Autumn 2 Digital painting	Spring 1 Moving a robot	Spring 2 Grouping data	Summer 1 Digital writing	Summer 2 Programming animations
Fundamental Knowledge	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	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	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. 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.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. 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.	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

Computing Curriculum Map

Tudor Grange Primary Academy
Perdiswell

Learning Checkpoint Tasks	To create a set of rules.	To create a piece of art in the style of Georges Seurat.	To move a beebot around the woods.	To group animals and answer questions about them.	To change the colour and size of a word. To use the bold and italic buttons.	To make a space background.
Interleaved Knowledge	Opportunities to experiment with a range of devices					

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Information technology around us	Digital photography	Robot algorithms	Pictograms	Digital music	Programming quizzes
Fundamental Knowledge	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	Understand what algorithms are, how they are implemented as programs on digital devices, and that	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	Understand what algorithms are, how they are implemented as programs on digital devices, and that

	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.	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.	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 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.		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
Learning Checkpoint Tasks	To create a set of online rules.	To edit a photo of a flower.	To design a floormat for a robot.	To create a Favorite subject pictogram	To create a piece of music based on an animal.	To create a quiz about an animal.
Interleaved Knowledge	Technology around us	Digital painting	Moving a robot	Grouping data	Digital writing	Programming animations

Computing Curriculum Map

Tudor Grange Primary Academy
Perdiswell

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Connecting computers	Stop-frame animation	Sequencing sounds	Branching databases	Desktop publishing	Events and actions in programs
Fundamental Knowledge	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for | 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 | 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 | 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 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 | 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. |

	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.	Use technology safely, respectfully and responsibly; recognize acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	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	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Learning Checkpoint Tasks	To identify networks in school.	To create a stop frame animation.	To create a music instrument on scratch (piano)	To create their own branching database on animals. Using yes/no questions.	To copy and paste a picture and a piece of text.	To move a sprite around a maze using the pen trail to show where it has moved.
Interleaved Knowledge	Information technology around us	Digital photography	Robot algorithms	Pictograms	Digital music	Programming quizzes
Year 4	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**

Computing Curriculum Map

Tudor Grange Primary Academy
Perdiswell

	The internet	Audio production	Repetition in shapes	Data logging	Photo editing	Repetition in games
Fundamental Knowledge	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	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.	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	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	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	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

	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/unacc eptable behaviour; identify a range of ways to report concerns about content and contact | | | | Use technology safely, respectfully and responsibly; recognise acceptable/unacc eptable behaviour; identify a range of ways to report concerns about content and contact | |
| **Learning Checkpoint Tasks** | To sort true and false information online. | To create a podcast. | To design a piece of wrapping paper. | To create their own question and collect answers. | To crop, rotate and edit a picture. | To create a game using repetition. |
| **Interleaved Knowledge** | Connecting computers | Stop-frame animation | Sequencing sounds | Branching databases | Desktop publishing | Events and actions in programs |

Computing Curriculum Map

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Systems and searching	Video production	Selection in physical computing	Flat-file databases	Vector drawing	Selection in quizzes
Fundamental Knowledge	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by

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.

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of | 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 | 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 | 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. | programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | 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 |

	ways to report concerns about content and contact	content and contact				
Learning Checkpoint Tasks	To research an animal.	To create a short video.	To write and test an algorithm.	To create a presentation on flight details.	To create a vector drawing using shapes and lines.	To design a quiz on scratch.
Interleaved Knowledge	The internet	Audio production	Repetition in shapes	Data logging	Photo editing	Repetition in games

Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Communication and collaboration	Webpage creation	Variables in games	Introduction to spreadsheets	3D modelling	Sensing
Fundamental Knowledge	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Select, use and combine a variety | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. | 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 | 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 | 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.

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. | 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 | 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, | goals, including collecting, analysing, evaluating and presenting data and information. | 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 | 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. |

			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.			
Learning Checkpoint Tasks	Compared different methods of communicating on the internet.	To create a webpage.	To design and improve a game on scratch.	To plan and calculate the cost of an event using a spreadsheet.	To plan, develop, and evaluate their own 3D model of a building.	To create a micro:bit fortune teller project.
Interleaved Knowledge	Systems and searching	Video production	Selection in physical computing	Flat-file databases	Vector drawing	Selection in quizzes