



**LITTLE BOWDEN
PRIMARY SCHOOL**

'Working together to love learning'

THE COMPUTING CURRICULUM: A PROGRESSION

Whole School Computing Progression Map

At Little Bowden, our Computing progression is **ambitious, memorable and diverse**, and is developed using the Teach Computing units and aligns to the National Curriculum Programme of Study for Computing as detailed below. Pupils build on a range of skills that enhance their computer science, information technology and digital literacy capabilities. Through their Computing journey, they will experience algorithms and programming, data, systems, digital artefacts, computing contexts, mechanics, searching and selecting information and online safety.

Each year group begins with 'Computer Systems', ensuring that they have the foundations to build upon through the year. In the second half term, each year group studies a module on 'Data and Information'. Within these sessions, pupils learn about different programmes, how to use the mouse and keyboard, shortcuts, etc. At Little Bowden, we see these as essential skills that will allow pupils to access the more complex units of 'Programming' and 'Creating Media' following the Christmas break.

Access to technology begins in the Early Years through exploratory and adult directed learning, and being given the chance to develop skills using devices they will encounter as they transition to KS1 (laptops, iPads and BeeBots).

Across the school, it is good practise for staff to also build these skills into other areas of learning allowing for pupils to transfer their learnt Computing skills to other learning tasks and further develop their confidence and understanding.

Computing in the Early Years

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. Technology will be available to our EYFS pupils through discovery and play during their continuous provision, whilst also in stand alone sessions. They will have access to devices such as iPads and laptops and programmes and apps on the interactive whiteboard to develop their confidence in using and understanding technology.

Although there is no specific Computing curriculum for EYFS, we have mapped out three areas of learning.

Reception	What is a device and how do I use them?	What is the Internet and how do I use it?	Asking for help.
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To support this, below are the statements of the 2020 Development Matters which are prerequisite skills for computing within the National Curriculum. We have taken the most relevant statements from the Early Learning Goals in the EYFS statutory framework to match the programme of study for Computing.

The most relevant statements for Computing are taken from the following areas of learning: Personal, Social and Emotional Development, Physical Development, Understanding the World and Expressive Arts and Design.

Reception	Personal, Social and Emotional Development		<ul style="list-style-type: none"> Show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> - sensible amounts of 'screen time'.
	Physical Development		<ul style="list-style-type: none"> Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Arts and Design		<ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	Personal, Social and Emotional Development	Managing Self	<ul style="list-style-type: none"> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Arts and Design	Creating with Materials	<ul style="list-style-type: none"> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Computing in KS1 and KS2

CS = Computer Science; **IT** = Information and Technology; **DL** = Digital Literacy

	Computing Systems and Networks	Data and Information	Programming		Creating Media	
Year 1	Technology Around Us Technology Around Us DL	Grouping Data Grouping Data IT	Digital Painting Digital Painting IT CS	Intro to Animation Programming Animations CS	Digital Writing Digital Writing IT CS	Moving a Robot Moving a Robot CS
Year 2	IT Around Us IT Around Us DL	Pictograms Data and Information - Pictograms IT	Making Music Digital Music IT CS	Introduction to Quizzes Programming Quizzes CS	Digital Photography Digital Photography IT CS	Robot Algorithms Robot Algorithms CS
Year 3	Connecting Computers Connecting Computers DL CS	Branching Databases Branching Databases IT	Sequencing Sounds Sequencing Sounds IT CS	Events and Actions Events and Actions in Programs CS	Desktop Publishing Desktop Publishing IT CS	Animation Stop-frame Animation CS
Year 4	The Internet The Internet DL CS	Data Logging Data Logging IT	Photo Editing Photo Editing IT CS	Repetition in Shapes Repetition in Shapes CS	Audio Production Audio Production IT CS	Repetition in Games Repetition in Games CS
Year 5	Sharing Information Systems and Searching DL CS	Flat-file Databases Databases IT	Video Production Video Production IT CS	Selection in Quizzes Selection in Quizzes CS	Vector Drawing Introduction to Vector Graphics IT CS	Selection in Physical Computing Selection in Physical Computing CS
Year 6	Communication Communication and Collaboration DL CS	Spreadsheets Introduction to Spreadsheets IT	Web Page Creation Web Page Creation IT CS	Sensing Sensing Movement CS	3D Modelling 3D Modelling IT CS	Variables in Games Variables in Games CS

Year 1	Technology Around Us	Grouping Data	Digital Painting	Intro to Animation	Digital Writing	Moving a Robot
National Curriculum Objectives	<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 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 	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<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
Lesson Objectives	<ul style="list-style-type: none"> To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type on a computer To use a keyboard to edit text To create rules for using technology responsibly 	<ul style="list-style-type: none"> To label objects To identify that objects can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects 	<ul style="list-style-type: none"> To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare typing on a computer to writing on paper 	<ul style="list-style-type: none"> To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instruction To design the parts of a project To use my algorithm to create a program 	<ul style="list-style-type: none"> To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper 	<ul style="list-style-type: none"> To explain what a given command will do To act out a given word To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To plan a simple program To find more than one solution to a problem
Resources Software/ Hardware	<ul style="list-style-type: none"> • Paintz app • Laptops 	<ul style="list-style-type: none"> • J2e pictograms 	<ul style="list-style-type: none"> • Microsoft word 	<ul style="list-style-type: none"> • Scratchjr 	<ul style="list-style-type: none"> • Paint 	<ul style="list-style-type: none"> • Physical and online BeeBots

Year 2	IT Around Us	Pictograms	Making Music	Introduction to Quizzes	Digital Photography	Robot Algorithms
National Curriculum Objectives	<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 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 	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<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 purposefully to create, organise, store, manipulate and retrieve digital content 	<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 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 	<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
Lesson Objectives	<ul style="list-style-type: none"> To recognise the uses and features of information technology To identify the uses of information technology in the school To identify information technology beyond the school To explain how to use information technology safely To recognise that choices are made when using information technology 	<ul style="list-style-type: none"> To recognise that we can count and compare objects using tally charts To recognise that objects can be represented by pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer 	<ul style="list-style-type: none"> To say how music can make us feel To identify that there are patterns in music To experiment with sound using a computer To use the computer to create a musical pattern To create music for a purpose To review and refine our computer work 	<ul style="list-style-type: none"> To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome To create a program using a given design To change a given design To create a program using my own design To dishonest how my project can be improved 	<ul style="list-style-type: none"> To use a digital device to take a photograph To make choices when taking a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that photos can be changed 	<ul style="list-style-type: none"> To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written
Resources Software/ Hardware	<ul style="list-style-type: none"> • Physical devices 	<ul style="list-style-type: none"> • J2epictogams 	<ul style="list-style-type: none"> • Chrome music lab 	<ul style="list-style-type: none"> • J2e pictograms 	<ul style="list-style-type: none"> • Photo editor • Pixlr 	<ul style="list-style-type: none"> • Paint

Year 3	Connecting Computers	Branching Databases	Sequencing Sounds	Events and Actions	Desktop Publishing	Animation
National Curriculum Objectives	<ul style="list-style-type: none"> - Use sequence, selection, and repetition in programmes, 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 worldwide 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 an create a range of programs, systems and content that accomplished 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 an create a range of programs, systems and content that accomplished given goals, including collecting, analysing, evaluating and presenting data and information - Use technology safely, respectfully and responsibly 	<ul style="list-style-type: none"> - Design, write, and debug programmes that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts - Use sequence, selection, and repetition in programmes; 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 an create a range of programs, systems and content that accomplished given goals, including collecting, analysing, evaluating and presenting data and information 	<ul style="list-style-type: none"> - Design, write, and debug programmes that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts - Use sequence, selection, and repetition in programmes; 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 an create a range of programs, systems and content that accomplished given goals, including collecting, analysing, evaluating and presenting data and information 	<ul style="list-style-type: none"> - Use search technologies effectively, appreciate how results are selected unranked, and be discerning in valuating digital content - Select, use and combine a variety of software (including internet services) on a range of digital devices to design an create a range of programs, systems and content that accomplished 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 an create a range of programs, systems and content that accomplished 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
Lesson Objectives	<ul style="list-style-type: none"> To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way that we work To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network 	<ul style="list-style-type: none"> To create questions with yes / no answers To identify the attributes needed to collect data about an object To create a branching database To explain why it is helpful for a database to be well structured To plan the structure of a branching database To independently create an identification tool 	<ul style="list-style-type: none"> To explore new programming environment To identify that commands have an outcome To explain that programme has a start To recognise that a sequence of commands can have an order To change the appearance of my project To create a project from a task description 	<ul style="list-style-type: none"> To explain how a Sprite moves in an existing project To create a programme to move a Sprite in four directions To adapt program to a new context To develop my programme by adding features To identify and fix bugs in a program To design and create a maze based challenge 	<ul style="list-style-type: none"> To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publisher publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing 	<ul style="list-style-type: none"> To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To plan animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation
Resources Software/ Hardware	<ul style="list-style-type: none"> • Online websites • Safari • Google 	<ul style="list-style-type: none"> • J2e.com data 	<ul style="list-style-type: none"> • Scratch 	<ul style="list-style-type: none"> • Scratch 	<ul style="list-style-type: none"> • Publisher • Adobe Spark 	<ul style="list-style-type: none"> • iMotion • Stop Motion Studio

Year 4	The Internet	Data Logging	Photo Editing	Repetition in Shapes	Audio Production	Repetition in Games
National Curriculum Objectives	<ul style="list-style-type: none"> - Understand computer networks, including the Internet; How they can provide multiple services, such as the worldwide web, and the opportunities they offer for communication and collaboration - Use search technologies effectively, appreciate how results are selected unranked, and be discerning in valuating 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 programmes, systems and content that accomplished given goals, including collecting, analysing, evaluating and presenting data and information well - 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 - Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programmes, 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 accomplished 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 bracket including Internet services bracket on a range of digital devices to design and create a range of programmes, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information 	<ul style="list-style-type: none"> - Use search technologies effectively, appreciate how results are selected unranked, and be discerning in valuating 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 programmes, 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 bracket including Internet services bracket on a range of digital devices to design and create a range of programmes, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information
Lesson Objectives	<ul style="list-style-type: none"> To networks physically connect to other networks To recognise how networked devices make up the Internet To outline how websites can be shared via the worldwide web To describe how content can be added and accessed on the worldwide web To recognise how the content of the worldwide web is created by people To evaluate the consequences of unreliable content 	<ul style="list-style-type: none"> To explain that data gathered overtime can be used to answer questions To use a digital device to collect data automatically To explain that a data logger collects data points from sensors overtime To recognise how a computer can help us analyse data To identify the data needed to answer questions To he's data from sensors to answer questions 	<ul style="list-style-type: none"> To explain that the composition of digital images can be changed To explain that colours can be changed in digital images To explain how cloning can be used in photo editing To explain that images can be combined To combine images for a purpose To evaluate how changes can improve an image 	<ul style="list-style-type: none"> To identify the accuracy in programming is important To create a programme in a text-based language To explain what repeat means To modify count-controlled loop to produce a given outcome To decompose the task into small steps To create a programme that uses count-controlled loops to produce a given outcome 	<ul style="list-style-type: none"> To identify that sound can be recorded To explain that audio recordings can be edited To recognise the different parts of creating a podcast project To apply audio editing skills in dependently To combine audio to enhance my podcast project To evaluate the effective use of audio 	<ul style="list-style-type: none"> To develop the use of count-controlled loops in a different programming environment To explain that in programming there are infinite loops and count control loops To develop a design that includes two or more loops which run at the same time To modify an infinite loop in a given programme To design a project that includes repetition To create a project that includes Rep position
Resources Software/ Hardware	<ul style="list-style-type: none"> • Online websites • Safari • Google 	<ul style="list-style-type: none"> • Data Loggers 	<ul style="list-style-type: none"> • Windows Photo Editor • Get Paint 	<ul style="list-style-type: none"> • Logo • Turtle 	<ul style="list-style-type: none"> • Audactiy 	<ul style="list-style-type: none"> • Scratch

Year 5	Sharing Information	Flat-file Databases	Vector Drawing	Selection in Quizzes	Video Production	Selection in Physical Computing
National Curriculum Objectives	<p>- 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</p> <p>- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>- 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</p>	<p>- 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>	<p>- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- 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>	<p>- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- 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> <p>- Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour.</p>	<p>- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- 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>
Lesson Objectives	<p>To explain that computers can be connected together to form systems</p> <p>To recognise the role of computer systems in our lives</p> <p>To identify how to use a search engine</p> <p>To describe how search engines select results</p> <p>To explain how search results are ranked</p> <p>To recognised by the order of results is important and to whom</p>	<p>To use a form to record information</p> <p>To compare paper and computer based databases</p> <p>To outline how you can answer questions by grouping and then sorting data</p> <p>To explain that tools can be used to select specific data</p> <p>To explain that computer programmes can be used to compare data visually</p> <p>To use a real world database to answer questions</p>	<p>To identify that drawing tools can be used to produce different outcomes.</p> <p>To create a vector drawing by combining shapes.</p> <p>To choose tools to achieve s desired effect</p> <p>To group objects to make them easier to work with</p> <p>To apply what I have learned about vector drawings</p>	<p>To explain how selection is used in computer programmes</p> <p>To relate their conditional statement connects a condition to an outcome</p> <p>To explain how selection directs the flow of a program</p> <p>To design a program that uses selection</p> <p>To create a program that uses selection</p> <p>To evaluate my program</p>	<p>To explain what makes the video effective</p> <p>To use a digital device to record video</p> <p>To capture video using a range of techniques</p> <p>To create a storyboard</p> <p>To identify that video can be improved through re shooting and editing</p> <p>To consider the impact of the choices made when making and sharing a video</p>	<p>To control a simple circuit connected to a computer</p> <p>To write a programme that includes count controlled loops</p> <p>To explain a loop can stop when a condition is met</p> <p>To explain the unloop can be used to repeatedly cheque whether a condition has been met</p> <p>To design up physical project that includes selection</p> <p>To create a programme that controls the physical computing project</p>
Resources Software/ Hardware	<ul style="list-style-type: none"> Online Websites 	<ul style="list-style-type: none"> J2 Data 	<ul style="list-style-type: none"> Microsoft PowerPoint 	<ul style="list-style-type: none"> Scratch Forms 	<ul style="list-style-type: none"> Windows 10 Video Editor iMovie Microsoft Photo App 	<ul style="list-style-type: none"> Raspberry Pi Crumbles

	Communication	Spreadsheets	Web Page Creation	Sensing	3D Modelling	Variables in Games
Year 6						
National Curriculum Objectives	<p>- 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</p> <p>- 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>	<p>- 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>	<p>- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- 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> <p>- Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour.</p>	<p>- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- 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>	<p>- 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> <p>- Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- 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>
Lesson Objectives	<p>To identify how to use a search engine</p> <p>To describe how search engines select results</p> <p>To explain how search results are ranked</p> <p>To recognise why the order of results is important, and to whom</p> <p>To recognise how we communicate using technology</p> <p>To evaluate different methods of online communication</p>	<p>To identify questions which can be answered using data</p> <p>To explain that objects can be described using data</p> <p>To explain that formulas can be used to produce calculated data</p> <p>To apply formulas to data, including duplicating</p> <p>To create a spreadsheet to plan an event</p> <p>To choose suitable ways to present data</p>	<p>To review an existing website and consider its structure</p> <p>To plan the features of a web page</p> <p>To consider the ownership and use of images (copyright)</p> <p>To recognise the need to preview pages</p> <p>To outline the need for a navigation path</p> <p>To recognise the implications of linking to content owned by other people</p>	<p>To create a program to run on a controllable device</p> <p>To explain that selection can control the flow of a program</p> <p>To update a variable with a user input</p> <p>To use a conditional statement to compare a variable to a value</p> <p>To design a project that uses inputs and outputs on a controllable device</p> <p>To develop a program to use inputs and outputs on a controllable device</p>	<p>To use a computer to create and manipulate three-dimensional (3D) digital objects</p> <p>To compare working digitally with 2D and 3D graphics</p> <p>To construct a digital 3D model of a physical object</p> <p>To identify that physical objects can be broken down into a collection of 3D shapes</p> <p>To design a digital model by combining 3D objects</p> <p>To develop and improve a digital 3D model</p>	<p>To define a 'variable' as something that is changeable</p> <p>To explain why a variable is used in a program</p> <p>To choose how to improve a game by using variables</p> <p>To design a project that builds on a given example</p> <p>To use my design to create a project</p> <p>To evaluate my project</p>
Resources Software/ Hardware	<ul style="list-style-type: none"> Online Websites 	<ul style="list-style-type: none"> Microsoft Excel Numbers App (iPad) 	<ul style="list-style-type: none"> Sway 	<ul style="list-style-type: none"> Microbit Microbit Emulator 	<ul style="list-style-type: none"> TinkerCAD 	<ul style="list-style-type: none"> Scratch

Progression in Online Safety (DL)

Year Group / Term	Autumn Term	Spring Term	Summer Term
1	Upsetting Content	Personal Information	Trusted Adults
2	Enjoying the Internet	Downloading Apps	Online Bullying
3	Being SMART	Communicating Online	Being a Good Friend Online
4	Sharing Online	Online Gaming	Reliability of Information
5	Digital Citizens	Online Wellbeing	Online Scams
6	Online Reputation	Digital Debate	Digital Dilemmas

At Little Bowden, we have created a progressive scheme for Online Safety using the 'Education for a Connected World' document created by the UK Council for Internet Safety. Alongside three specific units for Years 2, 4 and 6 on Online Safety within our PSHE curriculum, children receive three specific Online Safety lessons per year at the beginning of each term.

However, we also recognise that it is the role of all staff to identify opportunities to thread Online Safety through all school activities, both outside the classroom and in, making the most of unexpected learning opportunities as they arise. At Little Bowden, we recognise that online safety and broader digital resilience must be thread throughout the curriculum. Annual reviews of curriculum plans/schemes of work (including for SEND pupils) are an opportunity to consider the teaching of the key areas of Self-image and Identity, Online Relationships, Online Reputation, Online Bullying, Managing Online Information, Health, Wellbeing and Lifestyle, Privacy and Security, and Copyright and Ownership.