

Subject Computing
Aims/Intent At Weston School, we aim to prepare our learners for their future by giving them the opportunities to gain knowledge and develop skills that will equip them for a rapidly changing digital world. Through the Computing Curriculum, pupils will develop an understanding of the following key concepts. 1. Online Safety/Digital Literacy: (how to use technology and the internet safely and effectively and how to prepare for life in the digital world) 2. Computing systems and networks: (systems, networks and how they are used, the internet, hardware and software) 3. Programming: (interpreting, creating and evaluating algorithms, programming to accomplish specific goals, detecting and correcting errors) 4. Data and information: (collecting, analysing, evaluating, presenting data and information) 5. Creating media: (design and development, communicating and collaborating online, evaluating online content, respectful and responsible communication, presenting, creating content). These strands are revisited repeatedly through a range of themes during children’s time at the school to ensure the learning is embedded and skills are successfully developed. Our intention is that Computing also supports children’s creativity and cross curricular learning to engage children and enrich their experiences in school. The Weston Curriculum for Computing aims to ensure that all pupils: • will be taught to use technology responsibly and carefully, being mindful of how their behaviour, words and actions can affect others. • will be taught Computing and ICT in a way that ensures progression of skills and follows a sequence to build on previous learning. • will gain experience and skills of a wide range of technology in a way that will enhance their learning opportunities, enabling them to use technology across a range of subjects to be creative and solve problems, ensuring they make progress. At Weston, we have a broad and balanced Computing and ICT curriculum that builds on previous learning and provides both support and challenge for learners. It allows our children to acquire the vital knowledge and skills required for the next stage of their learning journey and for adulthood. This enables our pupils to become successful, active and positive members of their local community and wider world.

		<u>Curriculum Content</u>
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School Year 2023-2024 (Year B)

Pupils will be taught the following units:

	Autumn Term	Spring Term	Summer Term
EYFS	Pupils in EYFS - See EYFS Curriculum page for information about learning which forms the foundations for later learning in Computing (for example, as part of the Understanding the World area of learning).		
Year 1/2	Online Safety Unit 1.1	Spreadsheets Unit 2.3	Creating Pictures Unit 2.6
Year 3/4	Online Safety Unit 3.2	Branching Databases 3.6	Animation Unit 4.6
Year 5/6	Online Safety Unit 5.2	Creating Media: Video production (Y5)	Programming: Sensing movement (Y6)

School Year 2024-2025 (Year A)

Pupils will be taught the following units:

	Autumn Term	Spring Term	Summer Term
EYFS	Pupils in EYFS - See EYFS Curriculum page for information about learning which forms the foundations for later learning in Computing (for example, as part of the Understanding the World area of learning).		
Years 1/2	Online Safety Unit 2.2	Coding Unit 1.7	Effective Searching 2.5
Years 3/4	Online Safety Unit 4.2	Email Unit 3.5	Coding Unit 4.1
Years 5/6	Online Safety Unit 6.2	Computing systems and networks: Systems and Searching (Y5)	Data and Information: Spreadsheets (Y6)

Pupils will be taught to; Skills Progression: Year 1 to 6						
Class →	Year 1/2		Year 3/4		Year 5/6	
Key Concepts ↓	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Online Safety	• To log in safely. • To learn how to find saved work in the Online Work area and find teacher comments. • To learn how to search Purple Mash to find resources. • To become familiar with the icons and types of resources available in the Topics section. • To start to add pictures and text to work. • To explore the Tools and Games section of Purple Mash. • To learn how to open, save and print. • To understand the importance of logging out.	To know how to refine searches using the Search tool. • To use digital technology to share work on Purple Mash to communicate and connect with others locally. • To have some knowledge and understanding about sharing more globally on the Internet. • To introduce Email as a communication tool using 2Respond simulations. • To understand how we should talk to others in an online situation. • To open and send simple online communications in the form of email. • To understand that information put online leaves a digital footprint or trail. • To identify the steps that can be taken to keep personal data and hardware secure.	To know what makes a safe password. • To learn methods for keeping passwords safe. • To understand how the Internet can be used in effective communication. • To understand how a blog can be used to communicate with a wider audience. • To consider the truth of the content of websites. • To learn about the meaning of age restrictions symbols on digital media and devices.	• To understand how children can protect themselves from online identity theft. • To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • To identify the risks and benefits of installing software including apps. • To understand that copying the work of others and presenting it as their own is called ‘plagiarism’ and to consider the consequences of plagiarism. • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • To identify the positive and negative influences of technology on health and the environment.	• To gain a greater understanding of the impact that sharing digital content can have. • To review sources of support when using technology and children’s responsibility to one another in their online behaviour. • To know how to maintain secure passwords. • To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • To learn about how to reference sources in their work. •To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. To ensure reliability through using different methods of communication.	• To identify benefits and risks of mobile devices broadcasting the location of the user/device. • To identify secure sites by looking for privacy seals of approval. • To identify the benefits and risks of giving personal information. • To review the meaning of a digital footprint. • To have a clear idea of appropriate online behaviour. • To begin to understand how information online can persist. • To understand the importance of balancing game and screen time with other parts of their lives. • To identify the positive and negative influences of technology on health and the environment.
Programming	• To understand what instructions are and predict what might happen when they are followed. • To use code to make a computer program. • To understand what object and actions are. • To understand what an event is. • To use an event to control an object. • To begin to understand how code executes when a program is run. • To understand what backgrounds and objects are. • To plan and make a computer program.	• To understand what an algorithm is. • To create a computer program using an algorithm. • To create a program using a given design. • To understand the collision detection event. • To understand that algorithms follow a sequence. • To design an algorithm that follows a timed sequence. • To understand that different objects have different properties. • To understand what different events do in code. • To understand the function of buttons in a program. • To understand and debug simple programs.	• To understand what a flowchart is and how flowcharts are used in computer programming. • To understand that there are different types of timers and select the right type for purpose. • To understand how to use the repeat command. • To understand the importance of nesting. • To design and create an interactive scene.	• To begin to understand selection in computer programming. • To understand how an IF statement works. • To understand how to use co-ordinates in computer programming. • To understand the 'repeat until' command. • To understand how an IF/ELSE statement works. • To understand what a variable is in programming. • To use a number variable. • To create a playable game	To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program To design a program that uses selection To create a program that uses selection To evaluate my program	To create a program to run on a controllable device To explain that selection can control the flow of a program To use a conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device

Creating Media	• To make music digitally using 2Sequence. • To explore, edit and combine sounds using 2Sequence. • To upload a sound from a bank of sounds into the Sounds section. • To record and upload environmental sounds into Purple Mash. • To use these sounds to create tunes in 2Sequence.	• To edit and refine composed music. • To think about how music can be used to express feelings and create tunes which depict feelings. • To upload a sound from a bank of sounds into the Sounds section. • To record and upload environmental sounds into Purple Mash. • To use these sounds to create tunes in 2Sequence. • To edit their composition and improve it. • To evaluate the success of their composition and discuss with others.	• To discuss what animation is • To understand how animations are created by hand. • To find out how animation can be created in a similar way using the computer. • To be introduced to ‘stop motion’ animation.	• To discuss what makes a good animated film or cartoon. • To learn how animations are created by hand. • To find out how animation can be created in a similar way using the computer. • To learn about onion skinning in animation. • To add backgrounds and sounds to animations. • To be introduced to ‘stop motion’ animation. • To share animation on the class display board and by blogging.	To explain what makes a video effective To use a digital device to record video To capture video using a range of techniques To create a storyboard To identify that video can be improved through reshooting and editing	To study a variety of videos and understand what editing techniques have been used To design and create their own video to fit a stylistic brief To evaluate their project and reflect upon how they improve their work To consider the impact of the choices made when making and sharing a video
Data and Information	• To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine. • To learn how to copy and paste in 2Calculate. • To use the totalling tools.	• To use a spreadsheet for money calculations. • To use the 2Calculate equals tool to check calculations. • To use 2Calculate to collect data and produce a graph.	• To sort objects using just ‘yes’ or ‘no’ questions. • To complete a branching database using 2Question. • To create a branching database of the children’s choice.	• To create a branching database using 2Question. • To design and create a branching database. • To use others branching databases and give feedback on their design • To evaluate the success of their own branching database	• To understand what a spreadsheet is • To look at a variety of speadsheets and interpret them • To create a spreadsheet with a partner	To create a data set in a spreadsheet To build a data set in a spreadsheet To explain that formulas can be used to produce calculated data To apply formulas to data To create a spreadsheet to plan an event To choose suitable ways to present data
Computing Systems and Networks	• To understand what a search engine is • To gain a better understanding of how we can search for information on the internet • To know how to complete a search on the Chromebooks to research a particular topic	• To understand the terminology associated with searching. • To gain a better understanding of searching on the Internet. • To create a leaflet to help someone search for information on the Internet.	• To think about different methods of communication. • To open and respond to an email using an address book. • To learn how to use email safely.	• To understand email is an effective form of communication • To open and respond to an email using an address book. • To learn the risks associated with email. • To add an attachment to an email. • To explore a simulated email scenario.	To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives To identify how to use a search engine To describe how search engines select results search engine’s index	To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives To identify how to use a search engine To describe how search engines select results search engine’s index To explain how search results are ranked To recognise why the order of results is important, and to whom

Pupils will also re-visit learning from prior year groups to reinforce connections and to help them to truly master the learning.