Underwood West Academy

EYFS

Computing Curriculum- End points

To Code	To Collect	To Communicate	To Connect
• To know how to follow the rules of a game • To plan a route for a toy vehicle. • To plan and input instructions including directions (e.g. floor robot/person)	• To know how to collect information and present it in a pictogram. • To name different kinds of information • To know how to add information to a pictogram	• To know how to create shapes and patterns on screen.	• To know some types of technology used at home • To understand the reasons for rules, know right from wrong and try to behave accordingly
To be confident to try new activities and show independence, resilience and perseverance in the face of a challenge.	**To know how to collect information and present it as a pictogram**	**To explore, use and refine a variety of artistic effects to express their ideas and feelings.**	**To recognise a range of technology in my environment.**

Underwood West Academy

Year 1

Computing Curriculum- End Points

To Code	To Collect	To Communicate	To Connect	
Write and test simple programs. ● To know that an algorithm is a set of instructions and that the order is important ● To know how to identify a problem within a simple algorithm and how to fix it	**Sort and group data** ● To know examples for a variety of criteria, e.g. eye colour, house type ● To know the difference between sorting and grouping ● To know how to sort or group items using a range of criteria	**Know how to use technology purposefully to create and store digital content** ● To know how to paint with different colours and brushes. ● To know how to create shapes and fill areas ● To know how to add text to a page / image ● To use simple edit tools (undo and redo)	Recognise the common uses of information technology beyond school. ● To identify and know how technology is used in school and beyond.	Understand how to communicate safely online. ● To know what personal information is and how to keep it safe. ● To know how to be respectful (online and offline). ● To recognise and report inappropriate behaviour (online and offline).
'We are Programmers' Beebots	'We are Etymologists' To Count J2e Pictogram	'We are painters' 'We are Word Processors' Word 'We are animators' J2e animate	'We are Technology Users' Jessie and Friends	'We are Technology Users' Jessie and Friends SMART Zoo

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Year 2

Computing Curriculum- End Points

To Code	To Collect	To Communicate	To Connect
Plan write and test simple programs ● To use logical reasoning to predict the behaviour of simple programs. ● To know how to plan a sequence of instructions to achieve a purpose	Organise data and use to conduct simple searches ● To know how to design a binary tree to sort pictures ● To know how to use a database to answer more complex search questions ● To know how to use the 'search' tool to find information in a database ● To know spreadsheets can be used to create tables and graph ● To know how to copy, cut and paste in a spreadsheet ● To know how to use tools in a spreadsheet to automatically total rows and columns ● To know how to create a table of data on spreadsheet ● To know how to use data to create a block graph ● To save, open and edit spreadsheets	Know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content ● To understand that you can make music / art and present it in different ways ● To know how to retrieve a file to edit in a computer program. ● To understand the importance of feedback in order to make improvements	Understand what a Digital Footprint is and its implications. ● To know that the information put or searched for online leaves a digital footprint. ● To know how to keep personal data safe online ● To know how to complete safe searches and select appropriate information. ● To identify a variety of different devices that connect to the internet.
'We are Programmers' Scratch Jr	'We are Data Collectors' J2e Pictogram	'We are Artists' Paint 'We are Presenters' Word/PowerPoint 'We are animators' I can Animate App	'We are Responsible Users of the Internet' Jessie and Friends SMART Zoo

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Year 3

Computing Curriculum- End Points

To Code	To Collect	To Communicate	To Connect
Design and write programs that accomplish specific goals. ● To know how to debug multiple problems within their own algorithm ● To know how to use a sequence and repetition in programs. ● To begin to know how to integrate multimedia components	Create a range of charts and graphs from data in a spreadsheet ● To know how to add and edit in a table layout. ● To know how spreadsheet programs can automatically create graphs from data. ● To know that different charts and graphs can represent the same data. ● To know how to navigate and name cells in specific locations. Use and debug branching databases ● To know how to sort objects using just yes and no questions. ● To know how to ask appropriate and relevant questions to sort information ● To know how to edit and adapt an existing branching database to accommodate new entries. ● To know how to create, use and debug their own branching database. ● To know how to select and save images. Present results in a range of formats and use 'sorting' to analyse results ● To know how to enter results into a graph. ● To know how to discuss and compare results. ● To know how to share a graph with others. ● To know how to use the sorting option to make analysis easier.	Know how to create content that accomplishes a given goal using a variety of software on a range of devices ● To know how to order and group objects. ● To know how to recognise an effective layout. ● To know how to combine text and images. ● To know how to lay out objects effectively ● To know how to input on a keyboard (touch typing, shortcuts) ● To know how to create a presentation	Recognise how technology can provide multiple services and be used for collaboration. ● To know how to search the internet and think critically about the results that are returned. ● To understand how search results are selected and ranked. ● To understand how websites, target your digital footprint to promote advertisements. ● To learn about the meaning of age-restriction symbols and to understand why PEGI restrictions exist ● To know how to send and respond to emails safely ● To identify a variety of different devices that allow communication with others (email, facetime, voice memo, phone calls)
'We are Programmers' Scratch	'We are Dinosaur Hunters' J2e Branch	'We are Desktop Publishers' Publisher 'We are Word Processors' Word/Dance mat Typing 'We are animators' PowerPoint	'We are Responsible Users of the Internet' 2 email

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Year 4

Computing Curriculum- End Points

To Code	To Collect	To Communicate		To Connect	
Design and write programs that include controlling or simulating physical systems. ● To know how to debug multiple problems within their own algorithms/programs using a range of software ● To begin to know how to integrate multimedia components ● To know how variables, affect an outcome	Use formulae and combine tools in spreadsheets ● To know how to use place value in a spreadsheet, including currency and decimals ● To know how to add formulae to a cell to calculate results. ● To know how to use a variety of tools within a spreadsheet. ● To know how to use a series of data to create line graphs. ● To know how to interpret a line graph. ● To know how to use a spreadsheet in a real-life situation, e.g. budgeting	To know how to design and create a range of programs and content. ● Animate objects ● Build sequences of images into animations ● Tell a story through animation ● To know how to create simple musical rhythms ● To develop more complex pieces of music involving rhythm and melody	To know how to create content that accomplishes a given goal and presenting information to a specific audience. ● To know how to create and debug an algorithm to create a procedure. ● To know how to create and debug an algorithm that uses setpos to draw shapes. To know how to create and debug an algorithm with different colours. ● To know how to create and debug an algorithm to produce text.	Recognise how to be responsible digital citizens ● To create safe online profiles and explain why ● To know how to stay safe from online threats (phishing, malware) ● To understand the term plagiarism. ● To identify what is a reasonable, responsible balance between active and digital behaviour ● To develop and further their understanding of acceptable / unacceptable online behaviour and know way a range of ways to repo	Recognise the component parts of hardware which allow computers to join and form a network ● To know and name component parts of a computer (desk top - mouse, touch pad, screen, microphone)
'We are Mechanics' Lego Wedo	'We know the Answer' Data Collection	'We are Artists' Geometric Art- Logo 'We are animators' Pivot animator/ I can animate App		'We are Responsible Users of the Internet'	

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Year 5

Computing Curriculum- End Points

To Code	To Collect	To Communicate		To Connect
Design and write programs that accomplish specific goals by decomposing them into smaller parts. ● To know how to simplify sequences, selection and repetition in programs ● To know how to work with variables and with various forms of inputs and outputs ● To know how to generate appropriate inputs and predicted outputs to test a program ● To understand how to create efficient algorithms	Create spreadsheets to solve calculations and problems ● To know that data can be organised in different ways. ● To know how to enter formulae to carry out calculations. ● To know that data can be presented in a range of ways. ● To know how to format tables/graphs. ● To know how to enter information and search their own database ● To know how to create a database and add records ● To know what a field is and be able to add information ● To understand that there are different ways to search a database.	To know how to select, use and combine a variety of software (including Internet services) on a range of digital devices. ● To use concept maps to plan a series of ideas ● To work collaboratively to present a range of ideas ● To use real life simulations.	To design content by drawing and manipulating 3D shapes. ● To know how to use 3D modelling software ● To know how to draw 3D shapes. ● To know how to add detail to 3D drawings. ● To know how to add and manipulate 3D models. ● To know how to create a complex 3D model.	Recognise how to be responsible digital citizens and the impact it has on others ● To know how images and digital technology can be presented as false reality online ● To know how to apply online safety rules to real life scenarios ● To know how to keep personal data safe online - eg strong passwords ● To know the importance of thinking critically about online use
'We are Programmers' Scratch	'We are Organisers' Flat file Databases	'We are Controllers' Flowol	'We are Playground designers' Google Sketch up	'We are Responsible Users of the Internet' Play, Like, share Band runner

Underwood West Academy

Year 6

Computing Curriculum- End Points

To Code	To Collect	To Communicate		To Connect	
Design, write and explain more complex programs that fulfil specific purposes and apply with independence ● To know how to simplify sequences, selection and repetition in programs and conditional coding (functions) ● To know and apply knowledge of working with variables and with various forms of inputs and outputs ● To know and apply knowledge how to generate appropriate inputs and predicted outputs to test a program ● To know apply use efficient algorithms	Utilise shortcuts and formulae when creating Excel spreadsheets ● To know how spreadsheets are used in real life. ● To understand which formulae to use. ● To understand how to copy and paste formulae. ● To know how to interpret data and make conclusions. ● To know how to debug errors within a spreadsheet.	To know how to select, use and combine a variety of software (including Internet services) on a range of digital devices		Demonstrate being responsible digital citizens ● To know and identify the benefits and pitfalls of online relationships, location sharing services, social media ● To know and identify cyber bullying and strategies to be able to deal with this ● To understand (as a Year 6 child) how and why age restrictions apply	Recognise the component parts of a network ● Know the difference between the world wide web and the internet ● To know and name network hardware and types - e.g. servers and routers, internets and intranets, virtual private network
'We are Engineers' Lego, We do 2 Scratch	'We are Organisers' Spreadsheets	'We are Story Tellers' Scratch	'We are Architects' Google Sketch up	'We are Responsible Users of the Internet'	