Computing Curriculum Policy September 2023

How we teach computing

Computing at Wroxall Primary is split into three main domains:

- Computer Science - focusing on computational thinking through algorithms, programming and coding.
- Digital Literacy & Information Technology - developing ICT life skills that enable children to become creators of digital content as well as consumers.
- Online Safety – giving children the knowledge and skills that they will need to act as responsible and considerate digital citizens.

These skills are taught practically, with children having access to a wide range of IT equipment, from Bee-Bots and voice recorders to iPads and laptops. This ensures that children have the opportunity to experience a variety of technologies, and are able to apply their learning within an array of contexts.

Curriculum coverage and progression of skills in computing

Within each academic year, children will study a range of computing topics.
Within EYFS, computing is planned and accessed as part of a wide and varied play-based curriculum. In both Key Stage 1 and Key Stage 2, children are taught computing as a discrete subject, covering a specific topic each term.
The table below shows the computing topics that are currently delivered.
Online safety is taught alongside and in addition to computing, and cross-curricular links are made with RSHE when appropriate.

Computing Skills Progression							
Strand	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Digital Literacy & E-Safety	Pupils should be taught to 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 their online technologies.	Pupils should be taught to 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 their online technologies.		Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content.			
	•I can remember rules without needing an adult to remind them. • I can tell an adult when I see something unexpected or worrying online. •I can show resilience and perseverance in the face of a challenge. • I can interact with age-appropriate computer software on different devices, such as a computer,	• I can keep my password private. • I can tell you what personal information is. • I can tell an adult when I see something unexpected or worrying online. • I can talk about why it's important to be kind and polite. • I can recognise an age appropriate website. • I can agree and follow sensible e-Safety rules. • I can begin to use a keybaord, mouse,	• I can explain why I need to keep my password and personal information private. • I can describe the things that happen online that I must tell an adult about. • I can talk about why I should go online for a short amount of time. • I can talk about why it is important to be kind and polite online and in real life. • I know that not everyone is who they say they are	• I can talk about what makes a secure password and why they are important. • I can protect my personal information when I do different things online. • I can use the safety features of websites as well as reporting concerns to an adult. • I can recognise websites and games appropriate for my age. • I can make good choices about how long I spend online. • I ask an adult	• I choose a secure password when I am using a website. • I can talk about the ways I can protect myself and my friends from harm online. • I use the safety features of websites as well as reporting concerns to an adult. • I know that anything I post online can be seen by others. • I choose websites and games that are appropriate for my age.	• I protect my password and other personal information. • I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. • I know that anything I post online can be seen, used and may affect others. • I can talk about the dangers of spending too long online or playing a game. • I can explain the	• I protect my password and other personal information. • I can explain the consequences of sharing too much about myself online. • I support my friends to protect themselves and make good choices online, including reporting concerns to an adult. • I can explain the consequences of spending too much time online or on a game. • I can explain the consequences to myself and others of not communicating kindly and respectfully. • I protect my computer or device from harm on the Internet. • I understand why it is important for me to use and

	tablet or interactive whiteboard	trackpad and touchscreen.	on the Internet. • I can use a keybaord, mouse, trackpad and touchscreen with more confidence.	before downloading files and games from the Internet. • I can post positive comments online • I understand why it is important for me to use and view only the apps, websites or films that are appropriate to my age • I can use a keybaord, mouse, trackpad and touchscreen with more confidence.	• I can help my friends make good choices about the time they spend online. • I can talk about why I need to ask a trusted adult before downloading files and games from the Internet. • I comment positively and respectfully online. • I understand why it is important for me to use and view only the apps, websites or films that are appropriate to my age • I can use a keybaord, mouse, trackpad and touchscreen confidently	importance of communicating kindly and respectfully. • I can discuss the importance of choosing an age-appropriate website or game. • I can explain why I need to protect my computer or device from harm. • I know which resources on the Internet I can download and use. • I understand why it is important for me to use and view only the apps, websites or films that are appropriate to my age • I can use a mouse, trackpad and touchscreen confidently and begin to touch type on a keyboard.	view only the apps, websites or films that are appropriate to my age. • I can use a mouse, trackpad and touchscreen confidently and can type on a keyboard at a reasonable rate of speed and accuracy.

Strand		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming	Pupils should be taught to operate simple equipment, e.g. turn on CD player and use remote control. .	Pupils should be taught to 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.		Pupils should be taught to 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 (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.			
	•I can make toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. •I can complete a simple program on the computer or electronic device •I can think of ideas when using technology, for example, how to make a programmable toy move in different direction. •I can test out my ideas and make predictions •I can change a strategy if needed. For example, trying a different approach to use new device.	• I can give instructions to my friend and follow their instructions to move around. • I can describe what happens when I press buttons on a robot. • I can press the buttons in the correct order to make my robot do what I want. • I can describe what actions I will need to do to make something happen and begin to use the word algorithm. • I can begin to predict what will happen for a short sequence of instructions. • I can begin to use software/apps to create movement and patterns on a screen.	• I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. • I can tell you the order I need to do things to make something happen and talk about this as an algorithm. • I can program a robot or software to do a particular task. • I can begin to understand the vocabulary and importance of sequence and repetition. • I can look at my friend's program and tell you what will happen. • I can use programming software to make	• I can break an open-ended problem up into smaller parts. • I can put programming commands into a sequence to achieve a specific outcome. • I keep testing my program and can recognise when I need to debug it. • I understand and can use basic selection and repetition in algorithms. • I can create and describe the algorithm I will need for a simple task. • I can detect a problem in an algorithm which could result in unsuccessful programming.	• I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. • I can understand and can use selection (as well as sequence and repetition) in algorithms and programming. • I can use inputs to determine or trigger an action within my program. • I know that I need to keep testing my program while I am putting it together. • I can use a variety of tools to create a program. • I can recognise an error in a program and	• I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. • I can refine a procedure using repeat commands to improve a program. • I can understand and use variables within my programming. • I can use input to alter and affect my variables. • I can confidently use sequence, selection and repetition within my algorithms and programming. • I can design, build and program physical systems using inputs,	• I can deconstruct a problem into smaller steps, recognising similarities to solutions used before. • I can explain and program each of the steps in my algorithm. • I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. • I can recognise when I need to use a variable to achieve a required output. • I can use a variable and operators to stop a program (and understand why 'forever loops' can be inappropriate). • I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • I can use logical reasoning to detect and correct errors in a algorithms and programs.

		• I can use the word debug when I correct mistakes when I program.	objects move around the screen. • I can watch a program execute and spot where it goes wrong so that I can debug it.		debug it. • I recognise that an algorithm will help me to sequence more complex programs. • I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.	process and outputs. • I can use logical reasoning to detect and debug mistakes in a program. • I use logical thinking, imagination and creativity to extend a program.	

Strand		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Handling Data	Pupils should explore how to select and use technology for different purposes.	Pupils should be taught to use technology purposefully to organise and manipulate digital content.		Pupils should be taught to 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			
	•I can talk about different types of technology and how it is used? •I can show an understanding of a digital device and that the Internet can be a source of information? •I can retrieve information from the Internet and know that it is safer to do so with adult supervision?	• I can talk about the different ways in which information can be shown. • I can use technology to collect information, including photos, video and sound. • I can sort different kinds of information and present it to others. • I can add information to a pictograph and talk to you about what I have found out.	• I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. • I can make and save a chart or graph using the data I collect. • I can talk about the data that is shown in my chart or graph. • I am starting to understand a branching database. • I can tell you what kind of information I could use to help me investigate a question.	• I can talk about the different ways data can be organised. • I can search a ready-made database to answer questions. • I can collect data help me answer a question. • I can add to a database. • I can make a branching database. • I can use a data logger to monitor changes and can talk about the information collected.	• I can organise data in different ways. • I can collect data and identify where it could be inaccurate. • I can plan, create and search a database to answer questions. • I can choose the best way to present data to my friends. • I can use a data logger to record and share my readings with my friends.	• I can use a spreadsheet and database to collect and record data. • I can choose an appropriate tool to help me collect data.. • I can present data in an appropriate way. • I can search a database using different operators to refine my search. • I can talk about mistakes in data and suggest how it could be checked .	• I can plan the process needed to investigate the world around me. • I can select the most effective tool to collect data for my investigation. • I can check the data I collect for accuracy and plausibility. • I can interpret the data I collect. • I can present the data I collect in an appropriate way. • I use the skills I have developed to interrogate a database.

Strand		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multimedia		Pupils should be taught to use technology purposefully to create digital content		Pupils should be taught to 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.			
	• I can begin to use a keybaord, mouse, trackpad and touchscreen. • I can operate simple forms of technology, such as a CD player, remote control or touchscreen device • I can show interest in technological toys with moving parts • I can create using pictures or video, such as using a camera or device to take a video or a touchscreen device to draw a picture	• I can be creative with different technology tools. • I can use technology to create and present my ideas. • I can use the keyboard or a word bank on my device to enter text. • I can save information in a special place and retrieve it again.	• I can use technology to organise and present my ideas in different ways. • I can use the keyboard on my device to add, delete and space text for others to read. • I can tell you about an online tool that will help me to share my ideas with other people. • I can save and open files on the device I use.	• I can create different effects with different technology tools. • I can combine a mixture of text, graphics and sound to share my ideas and learning. • I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker. • I can evaluate my work and improve its effectiveness. • I can use an appropriate tool to share my work online.	• I can use photos, video and sound to create an atmosphere when presenting to different audiences. • I am confident to explore new media to extend what I can achieve. • I can change the appearance of text to increase its effectiveness. • I can create, modify and present documents for a particular purpose. • I can use a keyboard confidently and make use of a spellchecker to write and review my work. • I can use an appropriate tool to share my work and collaborate online. • I can give constructive feedback to my friends to help them improve their work and refine my own work.	• I can use text, photo, sound and video editing tools to refine my work. • I can use the skills I have already developed to create content using unfamiliar technology. • I can select, use and combine the appropriate technology tools to create effects that will have an impact on others. • I can select an appropriate online or offline tool to create and share ideas. • I can review and improve my own work and support others to improve their work.	• I can talk about audience, atmosphere and structure when planning a particular outcome. • I can confidently identify the potential of unfamiliar technology to increase my creativity. • I can combine a range of media, recognising the contribution of each to achieve a particular outcome. • I can tell you why I select a particular online tool for a specific purpose. • I can be digitally discerning when evaluating the effectiveness of my own work and the work of others.

Strand		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technology in our lives	Pupils should taught to show curiosity when exploring different types of technology and use their senses to explore new items of technology. Learning by trial and error – testing out new ideas to see how to make equipment work?	Pupils should be taught to use technology purposefully to store and retrieve digital content and to recognise common uses of information technology beyond school.		Pupils should be taught to 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.			
	•I can represent my experiences of technology in my play, for example, role playing taking photos in a role-play area. • I can recognise ways that technology is used in my home and community. • I can begin to identify some of the benefits of using technology.	• I can recognise the ways we use technology in our classroom. • I can recognise ways that technology is used in my home and community. • I can use links to websites to find information. • I can begin to identify some of the benefits of using technology.	• I can tell you why I use technology in the classroom. • I can tell you why I use technology in my home and community. • I am starting to understand that other people have created the information I use. • I can identify benefits of using technology including finding information, creating and communicating. • I can talk about the differences between the Internet and things in the physical world.	• I can save and retrieve work on the Internet, the school network or my own device. • I can talk about the parts of a computer. • I can tell you ways to communicate with others online. • I can describe the World Wide Web as the part of the Internet that contains websites. • I can use search tools to find and use an appropriate website. • I think about whether I can use images that I find online in my own work.	• I can tell you whether a resource I am using is on the Internet, the school network or my own device. • I can identify key words to use when searching safely on the World Wide Web. • I think about the reliability of information I read on the World Wide Web. • I can tell you how to check who owns photos, text and clipart. • I can create a hyperlink to a resource on the World Wide Web.	• I can describe different parts of the Internet. • I can use different online communication tools for different purposes. • I can use a search engine to find appropriate information and check its reliability. • I can recognise and evaluate different types of information I find on the World Wide Web. • I can describe the different parts of a webpage. • I can find out who the information on a webpage belongs to.	• I can tell you the Internet services I need to use for different purposes. • I can describe how information is transported on the Internet. • I can select an appropriate tool to communicate and collaborate online. • I can talk about the way search results are selected and ranked. • I can check the reliability of a website. • I can tell you about copyright and acknowledge the sources of information that I find online.

Planning – a two- year cycle based on advice from Susie McAuley (STEM teacher and Bohunt Computer Hub, NCCE Primary Lead.)

Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Skills	IT	IT – Problem solving & Strategies	IT-Music	CS-Unplugged-Cooking	IT-Digital art	IT-Unplugged
- Use different digital devices. - Recognise that you can access content on a digital device. - Use a mouse, touchscreen or appropriate access device to target and select options on screen. - Recognise a selection of digital devices. - Recognise the basic parts of a computer, e.g. mouse, screen, keyboard. - Select a digital device to fulfil a specific task, e.g. to take a photo.	**Technology around us** https://www.ilearn2.co.uk/computerdiscoveryfree.html http://code-it.co.uk/wp-content/uploads/2015/05/bankplan.pdf http://code-it.co.uk/wp-content/uploads/2015/05/supermarketplan.pdf http://www.crickweb.co.uk/Early-Years.html https://www.nurseryworld.co.uk/News/article/ict-in-role-play-check-it-out	**Exploring and solving Problems** **Jigsaw Planet** Insondable - Infantil - Camión bomberos (jigsawplanet.com) **Peg and Cat** https://pbskids.org/peg/	**Music creation** https://www.ilearn2.co.uk/freeyear1musiccreation.html/ https://springroll-tc.pbskids.org/music-maker/d0f261dffc3c8f713fa5a22bb99d7f9afd04cb56/release/index.html https://musiclab.chromeexperiments.com/Voice-Spinner/	**Barefoot Computing -** Jam sandwich http://swaygrantham.co.uk/wp-content/uploads/2016/09/JamSandwichAlgorithm.pdf Pizza https://www.barefootcomputing.org/docs/default-source/at-home/pizza_party_activity.pdf?sfvrsn=154d91ea_2	**Art** https://www.j2e.com/jit5 Art and algorithms **Talking Robots – Using QR codes** https://www.computingatschool.org.uk/resources/2022/march/using-qr-codes-in-eyfs-and-beyond	**Barefoot Computing** Lego Building Crazy Characters Head, Shoulder, Knees and Toes Boats Ahoy Busy Bodies

Yr 1/ 2 Cycle A	**Technology Around Us (Y1)** **Logging on** https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us https://www.abcya.com/games/find_the_tech Hello Ruby keyboard https://www.helloruby.com/play/12 Paper computer http://www.helloruby.com/play/29 Role play areas with tech	**Digital Painting (Y1)** https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting https://www.j2e.com/jit5 Y1) Tuxpaint.org (Y2)	**Moving a robot (Y1) (Cross curricular with Beebots)** https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot Plus Lesson 1, 2 and 3 https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms	**Book Creator(Linked to topic)** https://www.commonsense.org/education/lesson-plans/using-technology-to-enhance-an-all-about-me-book#1 https://www.commonsense.org/education/lesson-plans/creating-nonfiction-books-about-animals-in-book-creator **Digital Photographs (Y2) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography **Digital Writing** **(Y1) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing Web-https://www.j2e.com/jit5	**Introduction to Animation (Y1)** **https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation** **An introduction to quizzes(Y2)** https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes	**Grouping data (Y1) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/data-and-information-grouping-data **Pictograms (Y2)(Cross Curricular)** https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms https://www.ilearn2.co.uk/free--year-2-data-handling.html https://toytheater.com/category/math-games/graphing/

Yr 1 / 2 Cycle B	**Technology Around Us (Y2)** **Logging on** https://www.abcya.com/games/find_the_tech https://teachcomputing.org/curriculum key-stage-1/computing-systems-and-networks-technology-around-us	**Making Music** (Y2) https://teachcomputing.org/curriculum/key-stage-1/creating-media-making-music https://www.ilearn2.co.uk/freeyear1musiccreation.html Keezy drummer	**Moving a robot** (Y1) (Cross curricular and ideally with an alternative to Beebots https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot **Plus Lesson 1, 2 and 3** https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms	**Book Creator(Linked to topic)** https://www.commonsense.org/education/lesson-plans/using-technology-to-enhance-an-all-about-me-book#1 https://www.commonsense.org/education/lesson-plans/creating-nonfiction-books-about-animals-in-book-creator **Digital Photographs (Y2) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography **Digital Writing** **(Y1) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing Web-https://www.j2e.com/jit5	**Programming - Dance Unplugged** - https://curriculum.code.org/hoc/unplugged/4/ Dance Unplugged - https://www.barefootcomputing.org/resources/dance-move-algorithms and Computational Thinking - https://www.barefootcomputing.org/resources/decomposition-unplugged-activity-ks1	**Grouping data (Y1) (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-1/data-and-information-grouping-data **Pictograms (Y2)(Cross Curricular)** https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms https://www.ilearn2.co.uk/free--year-2-data-handling.html https://toytheater.com/category/math-games/graphing/
Yr 3/4 Cycle A	**Systems and networks- The internet (Y4)** https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-the-internet http://code-it.co.uk/netintsearch	**Programming- Sequence in music (Y3)** https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music Start with some tutorials https://scratch.mit.edu/projects/editor/?tutorial=getStarted Y4 Include a repeat or forever block or try the below tutorial https://projects.raspberrypi.org/en/projects/butterfly-garden	**Creating media- desktop publishing** **Adobe Spark** **(Cross curricular)(Y3)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-desktop-publishing	**Programming- events and actions(Y3)** https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions **https://studio.code.org/s/coursec-2020/stage/15/puzzle/1**	**Creating media- photo editing (Cross curricular) (Y4)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-photo-editing **https://pixlr.com/x/**	**Creating media- stop-frame animation (Cross curricular)(Y3)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation
Yr 3/4 Cycle B	**Creating media-Branching database (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases	**Programming-Repetition** **Repeat loops** https://scratch.mit.edu/projects/editor/?tutorial=getStarted https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games	**Creating media- desktop publishing** **Canva** **(Cross curricular)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-desktop-publishing	**Programming- Repetition** https://studio.code.org/s/dance-2019/stage/1/puzzle/1 **Extension Y4** https://studio.code.org/s/dance-extras-2019/stage/1/puzzle/1 Extension Y4 https://projects.raspberrypi.org/en/projects/flower-generator **Rapid router** **https://www.codeforlife.education/teach/materials/** **https://www.stem.org.uk/resources/elibrary/resource/36164/session-one-recap-using-simple-repeat-loop**	**Creating media-Audio editing (Cross curricular)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-audio-editing	**Creating media--** **Comic Creation (Cross curricular)** https://www.ilearn2.co.uk/comiccreationteacherfree.html https://www.makebeliefscomix.com/Comix/

Yr 5/ 6 Cycle A	**Systems and networks-Communication (Y6)** **https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-communication**	**Programming- Selection in quizzes(Y5)** **https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes** https://projects.raspberrypi.org/en/projects/dodgeball Y6 extend to variables https://projects.raspberrypi.org/en/projects/ghostbusters	**Creating media-video editing (Cross curricular)(Y5)** **https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing**	**Programming- Selection using Physical devices (Cross curricular) (Y5)** https://teachcomputing.org/curriculum/key-stage-2/programming-a-selection-in-physical-computing **Y6-extend to variables**	**Creating media-3D Modelling (Cross curricular)(Y6)** **https://teachcomputing.org/curriculum/key-stage-2/creating-media-3d-modelling**	**Data and information-Spreadsheets(Y6)** https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets
Yr 5/ 6 Cycle B	**Creating media-Flat file databases(Y5)** https://teachcomputing.org/curriculum/key-stage-2/data-and-information-flat-file-databases https://www.canyoucompute.co.uk/uploads/1/4/2/4/14249012/1_top_trumps_hw.pdf	**Programming-Variables(Y6)** https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games **and/** **or** https://www.ilearn2.co.uk/free--scratch-tennis-student.html/ **Use these as tutorials if needed** https://projects.raspberrypi.org/en/projects/flappy-parrot https://projects.raspberrypi.org/en/projects/ghostbusters Score https://projects.raspberrypi.org/en/projects/flappy-parrot https://csfirst.withgoogle.com/c/cs-first/en/game-design/overview.html	**Creating media-Web page design (Cross curricular)(Y6)** **https://teachcomputing.org/curriculum/key-stage-2/creating-media-web-page-creation**	**Programming- Variables using Physical devices (Cross curricular)(Y6)** **Year 5-Focus on selection** https://teachcomputing.org/curriculum/key-stage-2/programming-b-sensing	**Creating media-Vector drawing (Y5)** https://teachcomputing.org/curriculum/key-stage-2/creating-media-vector-drawing	**Programming-Python** **Code Combat** **https://codecombat.com/teachers/resources/cs1**

Enriching the computing curriculum

Children will be offered a number of computing related activities that allow them to apply their learning to solve real-world problems. For example they could be asked to use SketchUp to design a bridge over the River Medina, or write a simple programme to display a message to the astronauts on board the International Space Station.

Teachers are encouraged to make links between their current curriculum topics and computing. They will consider how the computing topics that they are delivering can best represent any knowledge or learning that has taken place. For example, it may be appropriate that when teaching about the Romans in history, children will be taught to plan, design and code an animation in Scratch that demonstrates their historical understanding alongside their computing skills. Or when children have been taught a new skill in Gymnastics, they are encouraged to create and host a vlog that demonstrates this.

How we plan learning in computing

Computer Science and Digital Literacy & Information Technology planning is formed from a combination of resources from NCCE (National Centre for Computing Education), Scratch and the websites www.barefootcas.org.uk and www.code-it.co.uk. These resources are used to inform and support the planning of lessons that scaffold and challenge pupils to develop their computational thinking and build familiarity with a variety of software and hardware. Planning is developed by class teachers to best suit the needs of individual classes or groups of children, and is tailored to their interests and abilities. Online safety resources are sourced from the SWGFL Digital Literacy and Citizenship units and ensure that children know how to stay safe online and make smart choices when using the internet.

Children with SEND

At Wroxall our aim is that a broad and balanced curriculum with support and challenge should be accessible to all children, including those with SEND. Children who are identified as having SEND or additional needs will have an individual support plan. The provision and targets identified within the plan may well have relevance to learning in computing as well as English or Maths. As such the class teacher will seek to differentiate learning within lessons to ensure its accessibility to all children. Support could include: finding alternative ways of recording understanding, reducing the need for writing if possible/appropriate; using visual cues/checklists to support learning; overtly teaching associated vocabulary; providing split-inputs where needed.

How we assess learning in computing

Learning is assessed regularly and formatively through observation of children's approaches to computational thinking, information technology and online safety. At the end of each unit, teachers will review children's work and make a judgement against the National Curriculum statements. For non-end of key stage year groups, these statements have been adapted to allow for progression within and across year groups.