



Computing Curriculum – Progression Map 2023-24

Strand 1 – Computer Science

Children of all ages at Robin Hood should be taught the key, age-appropriate skills and terminology that underpin the basics of computer programming. Children should be taught both practically and theoretically so that they understand how algorithms work and how to create their own. At Robin Hood, children should be given the opportunity to make mistakes, discover for themselves, make predictions and think computationally in order to develop knowledge around algorithms.

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Follow and create simple instructions. Listen to everyday instructions and begin to order them into a sequence. Use simple sequences to achieve a particular goal. E.g. making a sandwich, brushing our teeth, planting a seed.	Create and follow instructions, which include straight and turning commands. Initially the instructions should be given one at a time, then progress to a longer simple sequence of instructions. Discuss and explore what will happen when instructions are given in a sequence. Give a sequence of instructions to complete a simple task. Order events correctly in order to achieve an outcome.	Sequence events correctly to achieve an outcome. E.g. character gets to a particular point, character makes a sound, character changes size. Start to create algorithms that can be debugged in order to make sure they work achieve a set goal (this may be from Point A to Point B). Identify bugs within a sequence, beginning to explain why it is incorrect and how it can be fixed. Predict the outcome of a simple algorithm through logical reasoning and understanding of sequence. Understand that a forever loop will repeat selected parts of a sequence.	Recognise and use a series of input devices. Recognise and use a series of output devices. Know that certain devices can be a combination of both input and output, discuss these using definitions of both. Create algorithms for a character with an intended outcome in mind. Edit and refine a sequence to ensure no mistakes are made (debugging). Use repetition within a sequence using a forever loop – count loop, nested loop. Use conditional statements (if... then...) to recognise links between two characters.	Design and create programs to accomplish a goal. Use selection, repetition and sequence to ensure algorithms are well thought out. Use conditional statements within programming (if... then... this...) which includes repetition. Debug where necessary and confidently explain problems you may face in code. Begin to apply variables within a created program (e.g. time, points scoring). Understand how text-based coding works by creating simple shapes with commands and repetition.	Refine a procedure using repeat commands to improve the running of a program. Use a variable to increase programming possibilities. Change an input to a program to achieve a different output. Use 'if' and 'then' commands to select an action. Use logical thinking, imagination and creativity to extend a program.	Create fully working games with an intended purpose and target audience in mind, making use of a range of variables. Apply prior knowledge of block coding to new pieces of technology and software. Use logical reasoning to detect and correct errors within an algorithms (debugging). Recognise when the use of a variable is required to achieve a required output. Evaluate the effectiveness of an algorithm whilst continually testing that algorithm.



Computing Curriculum – Progression Map 2023-34

Strand 2 – Information Technology

At Robin Hood, we recognise the growing need for advanced thinkers and learners where technology is concerned so that young people are ready for the workplace. Across all ages, children will be taught using a range of software so that children are best equipped with the confidence to make, edit and manipulate digital content through word processing, video editing, animation, imagery and sound.

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Recognise technology around them, naming it and recognising the use both inside and outside of school. Understand how different jobs use different forms of technology to complete tasks. E.g. a shop worker using a till, a dentist using a scanner. Use technology around them to mark make, draw simple shapes and access age-appropriate software (IWB, MiniMash). Find and recognise letters of the alphabet on a keyboard, both standard and electronic (iPad) Use a range of digital tools such as a camera, voice recorder, keyboard, touchscreen.	Know how to take a photograph, sometimes using zoom and editing tools where appropriate. Record written information using technology. Create a digital image using paintbrush tools, changing variables (brush type, colour, thickness) and correcting mistakes (eraser). Children will begin to learn the basics of keyboard typing, including the use of the arrow keys and space bar. This might be to write a simple sentence or keywords. Children begin to explore data handling digitally, using online graphs and charts to display collected data.	Complete simple internet searches to locate a website. Independently log into a computer or account using login details, remembering to logout afterwards, recognising the importance. Be able to save or store work using the school server or personal accounts for future use. Use software to present information such as text and images from clipart. Begin to use additional keys on the keyboard to support the creation of digital content (caps lock, enter, shift). Explore font size, colour and style and use bold and underline where appropriate.	Use a range of software to present information that incorporates multimedia and animation between slides. Accurately type with some speed, using both hands on the keyboard. Capture video for a purpose using trim tools and mute to edit where necessary. Create purposeful, professional animations that make good use of camera settings and timings. Use software to locate countries, cities and towns.	Regularly use software to access and share documents that support learning, encouraging communication between two people. Receive a video call, adjusting audio and video settings improve the overall quality of the call. Understand how computer networks can provide multiple services, such as the World Wide Web. Make appropriate internet searches for research purposes, using split screen on an iPad to encourage note taking. Understand how to copy and paste both on an iPad and using keyboard shortcuts. Numerical data can be presented using software.	Combine software (sound, image, movie, animation) use to accomplish a goal. Use text, photo, sound and video editing tools to refine my work. Use the skills that I have already developed to create content using unfamiliar technology. Use advanced searching tools to refine searches with quotations and settings that alter and filter given results. Recognise that there are multiple search engines which have different algorithms and set ups. Use a spreadsheet and database to collect and record data. Recognise and evaluate different types of information I find on the World Wide Web.	Combine a range of media, recognising the contribution of each when achieving a particular outcome. Evaluate the effectiveness of my own work with audience and purpose in mind. Create high-quality presentations with real purpose and intent, including green-screening. Select the most appropriate tools for presenting data, being able to interpret and interrogate the data being shown. Have confidence in checking the reliability of a website.

		Understand different ways of presenting numerical data.		Understand the difference between bitmap and vector images.	Create a 3D structure using computer-aided design.	Discuss copyright and acknowledge the sources of information that I find online.
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Strand 3 – Digital Literacy

Children at Robin Hood must ensure that they know to use technology safely and appropriately. From a young age, children need to recognise what we use technology for both at home and at school. As children get older, we must teach children the key principles of staying safe online. Children should leave Robin Hood with a sound understanding of the dangers they may face online and must be equipped with the knowledge in order for them to tackle and address these issues.

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Safely use technology for its intended purpose. E.g. using a timer to record how long something takes, or a camera to capture a picture. Understand the important of asking an adult for permission and telling an adult if something upsets you online. Know the importance of being kind, both online and in person.	Begin to use digital devices safely and correctly, by recognising the common uses for technology found both in the classroom and at home. Name appropriate adults who they can talk to when something online leaves them feeling upset or uncomfortable. Know some ways that the internet can be used to support learning in and out of school Identify ways to keep themselves safe online and to demonstrate some ways of reducing risk when playing games.	Recognise what is age-appropriate for them to be doing on digital devices and the internet. Know what types of information are considered personal and private. Understand the difference between 'private' and 'public'. Explain the importance of a password and where we might use one. Be familiar with strategies that they can use to be safe online. E.g. name an appropriate adult to tell. Recognise the common	Understand what is acceptable and unacceptable online and the meaning of both terms. Know how to safely and appropriately download images from the internet, knowing where to store them and access at a later point. Have some understanding of copyright and the use of watermarks on images. Gain confidence in creating, sending, receiving and deleting an email using a safe account. Understand what to do with pop ups how	Know and implement strategies to help us when we access something inappropriate online. Be discerning when reading content online, recognising that not everything on the internet is true. Know how to keep things safe by having a good, strong password which is memorable and unique. Know how to safely call using video calling apps.	Know how to present themselves safely online eg social media sites, online gaming (HE13) Recognise the potential risks of providing personal information online. Classify computer games and films, understanding the need for age restrictions. Familiarise themselves with the term cyber bullying and will identify a range of strategies for dealing with this.	Know how to use digital devices, such as a mobile phone, safely and appropriately. Understand the term 'grooming' and recognise ways of dealing with this. Fully understand the term 'digital footprint', knowing that the sharing of some information is irreversible and can have consequences. Critically examine what is presented to them in social media knowing why it's important to do so. Know how and where to get help with issues online.

		uses for technology found in the wider world. E.g. bank, library, supermarket.	targeted advertisements work over the internet.			
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