

Skills Progression in Computing at THS

Strands	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	<p>Hardware –</p> <ul style="list-style-type: none"> I know about technologies in and out of school I know about input and outputs of devices <p>Computational thinking</p> <ul style="list-style-type: none"> I can use logical reasoning to understand simple instructions and predict the outcome 	<p>Hardware: -</p> <ul style="list-style-type: none"> I know what input and output means I can locate the keys on a keyboard I can use a device to make changes to photos I have taken or images have created I know how QR codes work <p>Coding:</p> <ul style="list-style-type: none"> I can solve unplugged problems using decomposition (breaking down a complex problem or system into smaller parts that are more manageable and easier to understand) I can predict the behaviour of simple programs -I know what an algorithm is I can assemble instructions into a simple algorithm I can program a BeeBot to follow a planned route I can debug when things go wrong 	<p>Hardware:</p> <ul style="list-style-type: none"> I know what a computer is and that it is made of different components I am learning that technology is doing what I want to do via its output I use greater control when taking photos and videos I are developing our confidence in typing <p>Coding:</p> <ul style="list-style-type: none"> I can articulate what decomposition means (breaking down a complex problem or system into smaller parts that are more manageable and easier to understand) I can decompose a game to predict the algorithms used to create it I can explain what an algorithm is and follow an algorithm I can incorporate loops into our algorithms I can use an algorithm to write a basic computer program 	<p>Hardware:</p> <ul style="list-style-type: none"> I know what the different components of a computer are and how they work together I know the difference between wired and wireless networks I can recognise links between networks and the internet I know how data can be transferred <p>Coding:</p> <ul style="list-style-type: none"> I can decompose (breaking down a complex problem or system into smaller parts that are more manageable and easier to understand) a program into an algorithm I can use our experience to solve new problems I can write increasingly complex algorithms for a purpose I can use and adapt nested loops 	<p>Hardware:</p> <ul style="list-style-type: none"> I know about the key components of a network -I understand that images and videos are files that can be shared from one computer to another I know that computer networks provide multiple services, such as the World Wide Web and opportunities for communication and collaboration, for example Google classroom. <p>Coding:</p> <ul style="list-style-type: none"> I can decompose (breaking down a complex problem or system into smaller parts that are more manageable and easier to understand) a program into an algorithm I can use our experience to solve new problems I can write increasingly complex algorithms for a purpose I can develop my program by debugging it. 	<p>Hardware:</p> <ul style="list-style-type: none"> I know that external devices can be programmed by a separate computer <p>Coding:</p> <ul style="list-style-type: none"> I can decompose a program into an algorithm I can use our experience to solve new problems I can write increasingly complex algorithms for a purpose I can use selection to produce an intended outcome. I can test and debug my project. 	<p>Hardware:</p> <ul style="list-style-type: none"> I know that computer networks provide multiple services <p>Coding:</p> <ul style="list-style-type: none"> I can decompose a program into an algorithm -I can use our experience to solve new problems I can write increasingly complex algorithms for a purpose I can use and adapt nested loops I can use selection to produce an intended outcome. I can test and debug my project.

Information Technology	Using Software: <ul style="list-style-type: none"> I know about digital storage of information- photography, digital writing and research information 	Using Software: <ul style="list-style-type: none"> I can use basic tools to edit graphics I can create digital art I can control a mouse by dragging, clicking and resizing elements I have an understanding of a range of different software programmes / apps Email & The Internet: <ul style="list-style-type: none"> I can search and download images from the internet safely Using Data: <ul style="list-style-type: none"> I can put data into tables charts and pictograms I can say why digital content can be better than using paper when storing or manipulating Wider Use: <ul style="list-style-type: none"> I recognise the common uses of IT, including beyond school I recognise the use of technology beyond school 	Using Software: <ul style="list-style-type: none"> I am developing my word processing skills; I can alter, copy and paste text I can use software / apps to create digital art I can take and edit photographs I can use software for digital storytelling I can use a computer to experiment with pitch I can add a sequence of notes to my rhythm Email & The Internet: <ul style="list-style-type: none"> I can log in and out of drive accounts I can discuss the positive and negative aspects of communication online. Using Data: <ul style="list-style-type: none"> I can collect and input data into a pictogram I can use technology to interpret data Wider Use: <ul style="list-style-type: none"> I know some ways that computers are used in the wider world 	Using Software: <ul style="list-style-type: none"> I can take photographs, find, create and upload images to tell a story I can use software / apps to edit and enhance our videos, adding music, sounds and text I can use software / apps to create digital art using layering Email & The Internet: <ul style="list-style-type: none"> I can log in and out of drive accounts I can discuss the positive and negative aspects of communication online. Using Data: <ul style="list-style-type: none"> I understand the vocabulary associated with databases (field, record, data) I know the pros and cons of digital versus paper I can create and interpret charts and graphs Wider Use: <ul style="list-style-type: none"> I understand the purpose of emails 	Using Software: <ul style="list-style-type: none"> I can use software and apps to create documents, presentations, forms and spreadsheets I can work collaboratively with others I can use software / apps to create audio, video, including text and animation Email & The Internet: <ul style="list-style-type: none"> I can log in and out of drive accounts I can discuss the positive and negative aspects of communication online. Using Data: <ul style="list-style-type: none"> I can design a and plan how to collect data using a data logger (e.g. a weather station) Wider Use: <ul style="list-style-type: none"> I know that software and apps can be used collaboratively online to work as a team. 	Using Software: <ul style="list-style-type: none"> I can use software / apps to create video presentation I can identify ways to improve and edit our final products I can use a vector drawing program to recreate an image. Email & The Internet: <ul style="list-style-type: none"> I have developed our searching skills so that I can find relevant information on the internet I use search engines effectively, focussing on keywords and search returns safely Using Data: <ul style="list-style-type: none"> I can sort and organise data and use the “and” “or” to filter and refine data selection. I can ask questions that will need more than one field to answer. Wider Use: <ul style="list-style-type: none"> I know that software and apps can be used collaboratively online to work as a team. 	Using Software: <ul style="list-style-type: none"> I can use search and word processing skills to create presentations I can add content to my webpage and evaluate it. I can create and edit sound recordings for a specific purpose I can create and edit videos, adding multiple elements such as sound, a voiceover, text etc. I can use 3D design software to design a product I can create a website with embedded links and multiple pages Email & The Internet: <ul style="list-style-type: none"> I understand how search engines work Using Data: <ul style="list-style-type: none"> I can create formulas and sorting within a spreadsheet. Wider Use: <ul style="list-style-type: none"> I know that software and apps can be used collaboratively online to work as a team.
Digital Literacy	Online safety <ul style="list-style-type: none"> I can use technology to express creatively and constructively I can talk about what it mean to stay safe online 	Online safety <ul style="list-style-type: none"> I can explain what each letter of SMART stands for. I understand the importance of a password -I can log in and out of our own accounts I know what I do if I see something on the internet that I shouldn't be seeing 	Online safety <ul style="list-style-type: none"> I understand how to stay safe when talking to people online I know that I shouldn't share personal information online I understand what a digital footprint is. I know what to do if I see anything that makes us feel 	Online safety <ul style="list-style-type: none"> I understand our role as digital citizens and our responsibility to treat other respectfully I know about 'Cyber Bullying' I know that not all emails are genuine and are learning to recognise when an email might be fake 	Online safety <ul style="list-style-type: none"> I understand our role as digital citizens and our responsibility to treat other respectfully I recognise what appropriate behaviour is when collaborating with others online 	Online safety <ul style="list-style-type: none"> I understand our role as digital citizens and our responsibility to treat other respectfully I can identify possible dangers online and know how to stay safe 	Online safety <ul style="list-style-type: none"> I understand our role as digital citizens and our responsibility to treat other respectfully I understand the importance of secure passwords and how to create them

			uncomfortable or upset	and what to do about it	<ul style="list-style-type: none">• I recognise that information on the internet might not be correct and that some sources are more trustworthy than others	<ul style="list-style-type: none">• I can create an animation about digital safety• I know that information on the internet might not be true or correct and I can check validity• I am learning how to use an online safety community	<ul style="list-style-type: none">• I can use search engines safely and effectively• I recognise that updated software can help to prevent data corruption and hacking
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