



## Danbury Park Community Primary School Computing Skills Progression

### EYFS

Early Learning Goals			
<b>Three and Four-Year-Olds</b>	Personal, social and Emotional Development		• Increasingly follow rules, understanding why they are important.
	Physical Development		• Match their developing physical skills to tasks and activities in the setting.
	Understanding the World		• Explore how things work.
<b>Reception</b>	Personal, social and Emotional Development		• Show resilience and perseverance in the face of a challenge.
	Physical Development		• Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • How and talk about the different factors that support their overall health and wellbeing <ul style="list-style-type: none"> <li>○ Sensible amounts of 'screen time'.</li> </ul>
	Expressive Arts and Design		• Explore, use and refine a variety of artistic effects to express their ideas and feelings.
<b>Early Learning Goal (ELG)</b>	Personal, social and Emotional Development	Managing Self	• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Physical Development	Creating with Materials	• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Computer Science	Information Technology	Digital Literacy
<p><i>EYFS Framework :</i></p> <ul style="list-style-type: none"> <li>• To show independence, resilience and perseverance in the face of challenge.</li> <li>• To know how to operate simple equipment.</li> <li>• To complete a simple program on a computer.</li> <li>• To interact with age-appropriate computer software.</li> <li>• To explore how things work.</li> </ul>	<p><i>EYFS Framework :</i></p> <ul style="list-style-type: none"> <li>• To explore a variety of materials tools and techniques, experimenting with colour, design, texture, form and function to express their ideas.</li> <li>• To express ideas and feeling using a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function to express their ideas.</li> <li>• To know that information can be retrieved from computers.</li> </ul>	<p><i>Education for a Connected World, links to Content, Contact and Conduct:</i></p> <p>I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. I can explain how this could be either in real life or online. I can recognise some ways in which the internet can be used to communicate. I can give examples of how I (might) use technology to communicate with people I know. I can identify ways that I can put information on the internet. I describe ways that some people can be unkind online. I can offer examples of how this can make others feel. I can talk about how I can use the internet to find things out. I can identify devices I could use to access information on the internet. I can give simple examples of how to find information (e.g. search engine, voice activated searching). I can identify rules that help keep us safe and healthy in and beyond the home when using technology, and I can give simple examples. I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). I can describe the people I can trust and can share this with; I can explain why I can trust them. I know that work I create belongs to me. I can name my work so that others know it belongs to me.</p>



	Computing Systems and Networks	Creating Media	Programming A	Data and Information	Creating Media	Programming B
<b>Year 1</b>	<b>Technology around us</b> -To identify technology -To identify a computer and its main parts -To use a mouse in different ways -To use a keyboard to type on a computer -To use the keyboard to edit text -To create rules for using technology responsibly	<b>Digital painting</b> -To describe what different freehand tools do -To use the shape tool and the line tools -To make careful choices when painting a digital picture -To explain why I chose the tools I used -To use a computer on my own to paint a picture -To compare painting a picture on a computer and on paper	<b>Moving a robot</b> -To explain what a given command will do -To act out a given word -To combine forwards and backwards commands to make a sequence -To combine four direction commands to make sequences -To plan a simple program -To find more than one solution to a problem	<b>Grouping data</b> -To label objects -To identify that objects can be counted -To describe objects in different ways -To count objects with the same properties -To compare groups of objects -To answer questions about groups of objects	<b>Digital writing</b> -To use a computer to write -To add and remove text on a computer -To identify that the look of text can be changed on a computer -To make careful choices when changing text -To explain why I used the tools that I chose -To compare typing on a computer to writing on paper	<b>Programming animations</b> -To choose a command for a given purpose -To show that a series of commands can be joined together -To identify the effect of changing a value -To explain that each sprite has its own instructions -To design the parts of a project -To use my algorithm to create a program
<b>Year 2</b>	<b>Information technology around us</b> -To recognise the uses and features of information technology -To identify the uses of information technology in the school -To identify information technology beyond school -To explain how information technology helps us -To explain how to use information technology safely -To recognise that choices are made when using information technology	<b>Digital photography</b> -To use a digital device to take a photograph -To make choices when taking a photograph -To describe what makes a good photograph -To decide how photographs can be improved -To use tools to change an image -To recognise that photos can be changed	<b>Robot algorithms</b> -To describe a series of instructions as a sequence -To explain what happens when we change the order of instructions -To use logical reasoning to predict the outcome of a program -To explain that programming projects can have code and artwork -To design an algorithm -To create and debug a program that I have written	<b>Pictograms</b> -To recognise that we can count and compare objects using tally charts -To recognise that objects can be represented as pictures -To create a pictogram -To select objects by attribute and make comparisons -To recognise that people can be described by attributes -To explain that we can present information using a computer	<b>Digital music</b> -To say how music can make us feel -To identify that there are patterns in music -To experiment with sound using a computer -To use a computer to create a musical pattern -To create music for a purpose -To review and refine our computer work	<b>Programming quizzes</b> -To explain that a sequence of commands has a start -To explain that a sequence of commands has an outcome -To create a program using a given design -To change a given design -To create a program using my own design -To decide how my project can be improved



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<b>Year 3</b>	<b>Programming Connecting Computers</b> -To explain how digital devices function -To identify input and output devices -To recognise how digital devices can change the way we work -To explain how a computer network can be used to share information -To explore how digital devices can be connected -To recognise the physical components of a network	<b>Stop-frame animation</b> -To explain that animation is a sequence of drawings or photographs -To relate animated movement with a sequence of images -To plan an animation -To identify the need to work consistently and carefully -To review and improve an animation -To evaluate the impact of adding other media to an animation	<b>Sequencing sounds</b> -To explore a new programming environment -To identify that commands have an outcome -To explain that a program has a start -To recognise that a sequence of commands can have an order -To change the appearance of my project -To create a project from a task description	<b>Branching databases</b> -To create questions with yes/no answers -To identify the attributes needed to collect data about an object -To create a branching database -To explain why it is helpful for a database to be well structured -To plan the structure of a branching database -To independently create an identification tool	<b>Desktop publishing</b> -To recognise how text and images convey information -To recognise that text and layout can be edited -To choose appropriate page settings -To add content to a desktop publishing publication -To consider how different layouts can suit different purposes -To consider the benefits of desktop publishing	<b>Events and actions in programs</b> -To explain how a sprite moves in an existing project -To create a program to move a sprite in four directions -To adapt a program to a new context -To develop my program by adding features -To identify and fix bugs in a program -To design and create a maze-based challenge
<b>Year 4</b>	<b>The internet</b> -To describe how networks physically connect to other networks -To recognise how networked devices make up the internet -To outline how websites can be shared via the World Wide Web (WWW) -To describe how content can be added and accessed on the World Wide Web (WWW) -To recognise how the content of the WWW is created by people -To evaluate the consequences of unreliable content	<b>Audio production</b> -To identify that sound can be recorded -To explain that audio recordings can be edited -To recognise the different parts of creating a podcast project -To apply audio editing skills independently -To combine audio to enhance my podcast project -To evaluate the effective use of audio	<b>Repetition in shapes</b> -To identify that accuracy in programming is important -To create a program in a text-based language -To explain what 'repeat' means -To modify a count-controlled loop to produce a given outcome -To decompose a task into small steps -To create a program that uses count-controlled loops to produce a given outcome	<b>Data logging</b> -To explain that data gathered over time can be used to answer questions -To use a digital device to collect data automatically -To explain that a data logger collects 'data points' from sensors over time -To recognise how a computer can help us analyse data -To identify the data needed to answer questions -To use data from sensors to answer questions	<b>Photo editing</b> -To explain that the composition of digital images can be changed -To explain that colours can be changed in digital images -To explain how cloning can be used in photo editing -To explain that images can be combined -To combine images for a purpose -To evaluate how changes can improve an image	<b>Repetition in games</b> -To develop the use of count-controlled loops in a different programming environment -To explain that in programming there are infinite loops and count controlled loops -To develop a design that includes two or more loops which run at the same time -To modify an infinite loop in a given program -To design a project that includes repetition -To create a project that includes repetition



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<b>Year 5</b>	<b>Systems and searching</b> -To explain that computers can be connected together to form systems -To recognise the role of computer systems in our lives -To experiment with search engines -To describe how search engines select results -To explain how search results are ranked -To recognise why the order of results is important, and to whom	<b>Video production</b> -To explain what makes a video effective -To identify digital devices that can 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 consider the impact of the choices made when making and sharing a video	<b>Selection in physical Computing</b> -To control a simple circuit connected to a computer -To write a program that includes count-controlled loops -To explain that a loop can stop when a condition is met -To explain that a loop can be used to repeatedly check whether a condition has been met -To design a physical project that includes selection -To create a program that controls a physical computing project	<b>Flat-file databases</b> -To use a form to record information -To compare paper and computer-based databases -To outline how you can answer questions by grouping and then sorting data -To explain that tools can be used to select specific data -To explain that computer programs can be used to compare data visually -To use a real-world database to answer questions	<b>Introduction to vector graphics</b> -To identify that drawing tools can be used to produce different outcomes -To create a vector drawing by combining shapes -To use tools to achieve a desired effect -To recognise that vector drawings consist of layers -To group objects to make them easier to work with -To apply what I have learned about vector drawings	<b>Selection in quizzes</b> -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 which uses selection -To create a program which uses selection -To evaluate my program
<b>Year 6</b>	<b>Communication and collaboration</b> -To explain the importance of internet addresses -To recognise how data is transferred across the internet -To explain how sharing information online can help people to work together -To evaluate different ways of working together online -To recognise how we communicate using technology -To evaluate different methods of online communication	<b>Webpage creation</b> -To review an existing website and consider its structure -To plan the features of a web page -To consider the ownership and use of images (copyright) -To recognise the need to preview pages -To outline the need for a navigation path -To recognise the implications of linking to content owned by other people	<b>Variables in games</b> -To define a 'variable' as something that is changeable -To explain why a variable is used in a program -To choose how to improve a game by using variables -To design a project that builds on a given example -To use my design to create a project -To evaluate my project	<b>Introduction to spreadsheets</b> -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	<b>3D modelling</b> -To recognise that you can work in three dimensions on a computer -To identify that digital 3D objects can be modified -To recognise that objects can be combined in a 3D model -To create a 3D model for a given purpose -To plan my own 3D model -To create my own digital 3D model	<b>Sensing movement</b> To create a program to run on a controllable device -To explain that selection can control the flow of a program -To update a variable with a user input -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



## Online Safety: Education for a Connected World

<b>Self Image and Identity</b>					
<b>Reception</b>	I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset.	I can explain how this could be either in real life or online.			
<b>Year 1</b>	I can recognise that there may be people online who could make me feel sad, embarrassed or upset.	If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust.			
<b>Year 2</b>	I can explain how other people's identity online can be different to their identity in real life.	I can describe ways in which people might make themselves look different online.	I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.		
<b>Year 3</b>	I can explain what is meant by the term 'identity'.	I can explain how I can represent myself in different ways online.	I can explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media).		
<b>Year 4</b>	I can explain how my online identity can be different to the identity I present in 'real life'.	Knowing this, I can describe the right decisions about how I interact with others and how others perceive me.			
<b>Year 5</b>	I can explain how identity online can be copied, modified or altered.	I can demonstrate responsible choices about my online identity, depending on context.			
<b>Year 6</b>	I can describe ways in which media can shape ideas about gender.	I can identify messages about gender roles and make judgements based on them.	I can identify messages about gender roles and make judgements based on them.	I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both on and offline.	I can explain why I should keep asking until I get the help I need.



Online Relationships								
<b>Reception</b>	I can recognise some ways in which the internet can be used to communicate.		I can give examples of how I (might) use technology to communicate with people I know.					
<b>Year 1</b>	I can use the internet with adult support to communicate with people I know.		I can explain why it is important to be considerate and kind to people online.					
<b>Year 2</b>	I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country).		I can give examples of how I might use technology to communicate with others I don't know well.					
<b>Year 3</b>	I can describe ways people who have similar likes and interests can get together online.	I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak).	I can explain some risks of communicating online with others I don't know well.	I can explain why I should be careful who I trust online and what information I can trust them with.	I can explain how my and other people's feelings can be hurt by what is said or written online.	I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried.	I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life.	I can explain what is meant by 'trusting someone online'. I can explain why this is different from 'liking someone online'.
<b>Year 4</b>	I can describe strategies for safe and fun experiences in a range of online social environments.		I can give examples of how to be respectful to others online.					
<b>Year 5</b>	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault.		I can make positive contributions and be part of online communities.		I can describe some of the communities in which I am involved and describe how I collaborate with others positively			
<b>Year 6</b>	I can show I understand my responsibilities for the well-being of others in my online social group.		I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming).		I can demonstrate how I would support others (including those who are having difficulties) online		I can demonstrate ways of reporting problems online for both myself and my friends.	



<b>Online Reputation</b>			
<b>Reception</b>	I can identify ways that I can put information on the internet.		
<b>Year 1</b>	I can recognise that information can stay online and could be copied.	I can describe what information I should not put online without asking a trusted adult first.	
<b>Year 2</b>	I can explain how information put online about me can last for a long time.	I know who to talk to if I think someone has made a mistake about putting something online.	
<b>Year 3</b>	I can search for information about myself online.	I can recognise I need to be careful before I share anything about myself or others online.	I know who I should ask if I am not sure if I should put something online.
<b>Year 4</b>	I can describe how others can find out information about me by looking online.	I can explain ways that some of the information about me online could have been created, copied or shared by others.	
<b>Year 5</b>	I can search for information about an individual online and create a summary report of the information I find.	I can describe ways that information about people online can be used by others to make judgments about an individual.	
<b>Year 6</b>	I can explain how I am developing an online reputation which will allow other people to form an opinion of me.	I can describe some simple ways that help build a positive online reputation.	



	<b>Online Bullying</b>				
<b>Reception</b>	I can describe ways that some people can be unkind online.	I can offer examples of how this can make others feel.			
<b>Year 1</b>	I can describe how to behave online in ways that do not upset others and can give examples.				
<b>Year 2</b>	I can give examples of bullying behaviour and how it could look online.	I understand how bullying can make someone feel.	I can talk about how someone can/would get help about being bullied online or offline.		
<b>Year 3</b>	I can explain what bullying is and can describe how people may bully others.	I can describe rules about how to behave online and how I follow them.			
<b>Year 4</b>	I can identify some online technologies where bullying might take place.	I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).	I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).		
<b>Year 5</b>	I can recognise when someone is upset, hurt or angry online.	I can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone.	I can explain how to block abusive users.	I can explain how I would report online bullying on the apps and platforms that I use.	I can describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline).
<b>Year 6</b>	I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.	I can identify a range of ways to report concerns both in school and at home about online bullying.			





Managing Online Information									
<b>Reception</b>	I can talk about how I can use the internet to find things out.		I can identify devices I could use to access information on the internet.			I can give simple examples of how to find information (e.g. search engine, voice activated searching).			
<b>Year 1</b>	I can use the internet to find things out.		I can use simple keywords in search engines.			I can describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened.			
<b>Year 2</b>	I can use keywords in search engines.	I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).		I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri).		I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.		I can explain why some information I find online may not be true.	
<b>Year 3</b>	I can use key phrases in search engines.		I can explain what autocomplete is and how to choose the best suggestion.		I can explain how the internet can be used to sell and buy things.		I can explain the difference between a 'belief', an 'opinion' and a 'fact'.		
<b>Year 4</b>	I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'.		I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites).		I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.		I can explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people.		I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.
<b>Year 5</b>	I can use different search technologies	I can evaluate digital content and can explain how I make choices from search results.	I can explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence.	I understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead).	I can explain what is meant by 'being sceptical'. I can give examples of when and why it is important to be 'sceptical'.	I can explain what is meant by a 'hoax'. I can explain why I need to think carefully before I forward anything online.	I can explain why some information I find online may not be honest, accurate or legal.	I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose).	
<b>Year 6</b>	I can use search technologies effectively.	I can explain how search engines work and how results are selected and ranked.	I can demonstrate the strategies I would apply to be discerning in evaluating digital content.	I can describe how some online information can be opinion and can offer examples.	I can explain how and why some people may present 'opinions' as 'facts'.	I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting').	I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important.	I can identify, flag and report inappropriate content.	



	<b>Health, Wellbeing and Lifestyle</b>		
<b>Reception</b>	I can identify rules that help keep us safe and healthy in and beyond the home when using technology, and I can give simple examples.		
<b>Year 1</b>	I can explain rules to keep us safe when we are using technology both in and beyond the home, and I can give examples of some of these rules		
<b>Year 2</b>	I can explain simple guidance for using technology in different environments and settings.	I can say how those rules/guides can help me.	
<b>Year 3</b>	I can explain why spending too much time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).		
<b>Year 4</b>	I can explain how using technology can distract me from other things I might do or should be doing.	I can identify times or situations when I might need to limit the amount of time I use technology.	I can suggest strategies to help me limit this time.
<b>Year 5</b>	I can describe ways technology can affect healthy sleep and can describe some of the issues.	I can describe some strategies, tips or advice to promote healthy sleep with regards to technology.	
<b>Year 6</b>	I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.	I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise).	I can explain the importance of selfregulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents).



	<b>Privacy and Security</b>				
<b>Reception</b>	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).		I can describe the people I can trust and can share this with; I can explain why I can trust them.		
<b>Year 1</b>	I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school).	I can explain why I should always ask a trusted adult before I share any information about myself online.		I can explain how passwords can be used to protect information and devices.	
<b>Year 2</b>	I can describe how online information about me could be seen by others.	I can describe and explain some rules for keeping my information private.	I can explain what passwords are and can use passwords for my accounts and devices.		I can explain how many devices in my home could be connected to the internet and can list some of those devices.
<b>Year 3</b>	I can give reasons why I should only share information with people I choose to and can trust. I can explain that if I am not sure or I feel pressured, I should ask a trusted adult.	I understand and can give reasons why passwords are important.		I can describe simple strategies for creating and keeping passwords private.	I can describe how connected devices can collect and share my information with others.
<b>Year 4</b>	I can explain what a strong password is.	I can describe strategies for keeping my personal information private, depending on context.	I can explain that others online can pretend to be me or other people, including my friends.	I can suggest reasons why they might do this.	I can explain how internet use can be monitored.
<b>Year 5</b>	I can create and use strong and secure passwords.		I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.		I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing.
<b>Year 6</b>	I use different passwords for a range of online services.	I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories).		I know what to do if my password is lost or stolen.	I can explain what app permissions are and can give some examples from the technology or services I use.



<b>Copyright and Ownership</b>			
<b>Reception</b>	I know that work I create belongs to me.		I can name my work so that others know it belongs to me.
<b>Year 1</b>	I can explain why work I create using technology belongs to me.	I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it').	I can save my work so that others know it belongs to me (e.g. filename, name on content).
<b>Year 2</b>	I can describe why other people's work belongs to them.		I can recognise that content on the internet may belong to other people.
<b>Year 3</b>	I can explain why copying someone else's work from the internet without permission can cause problems.		I can give examples of what those problems might be.
<b>Year 4</b>	When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it, and I can give some simple examples		I can assess and justify when it is acceptable to use the work of others.
<b>Year 5</b>	I can give examples of content that is permitted to be reused.		
<b>Year 6</b>	I can demonstrate the use of search tools to find and access online content which can be reused by others.		I can demonstrate the use of search tools to find and access online content which can be reused by others.