



## **Danbury Park Community Primary School** **Computing Overview**

The National Curriculum for Computing can be split into three core areas:

- 🐦 Computing Science (CS)
- 🐦 Information Technology (IT)
- 🐦 Digital Literacy (DL)

At Danbury Park, we use the *Teach Computing Curriculum*, which for Key Stage 1 and Key Stage 2 is split into the following strands:

- 🐦 Computing Systems and Networks
- 🐦 Creating Media
- 🐦 Programming A
- 🐦 Data and Information
- 🐦 Creating Media
- 🐦 Programming B

Online Safety is taught using the objectives from *Education from a Connected World*, focusing on the following eight different aspects:

- 🐦 Self-image and Identity
- 🐦 Online relationships
- 🐦 Online reputation
- 🐦 Online bullying
- 🐦 Managing online information
- 🐦 Health, wellbeing and lifestyle
- 🐦 Privacy and security
- 🐦 Copyright and ownership



**EYFS**

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

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.</p> <p>I can explain how this could be either in real life or online.</p> <p>I can recognise some ways in which the internet can be used to communicate.</p> <p>I can give examples of how I (might) use technology to communicate with people I know.</p> <p>I can identify ways that I can put information on the internet.</p> <p>I describe ways that some people can be unkind online.</p> <p>I can offer examples of how this can make others feel.</p> <p>I can talk about how I can use the internet to find things out.</p> <p>I can identify devices I could use to access information on the internet.</p> <p>I can give simple examples of how to find information (e.g. search engine, voice activated searching).</p> <p>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.</p> <p>I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).</p> <p>I can describe the people I can trust and can share this with; I can explain why I can trust them.</p> <p>I know that work I create belongs to me.</p> <p>I can name my work so that others know it belongs to me.</p>



	<b>Computing Systems and Networks</b>	<b>Creating Media</b>	<b>Programming A</b>	<b>Data and Information</b>	<b>Creating Media</b>	<b>Programming B</b>
<b>Year 1</b>	<b>Technology around us</b> Recognising technology in school and using it responsibly. (IT) (DL)	<b>Digital painting</b> Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally. (IT)	<b>Moving a robot</b> Writing short algorithms and programs for floor robots, and predicting program outcomes. (CS) (DL)	<b>Grouping data</b> Exploring object labels, then using them to sort and group objects by properties. (IT) (DL)	<b>Digital writing</b> Using a computer to create and format text, before comparing to writing non-digitally. (IT) (DL)	<b>Programming animations</b> Designing and programming the movement of a character on screen to tell stories. (CS)
<b>Year 2</b>	<b>Information technology around us</b> Identifying IT and how its responsible use improves our world in school and beyond. (IT) (DL)	<b>Digital photography</b> Capturing and changing digital photographs for different purposes. (IT) (DL)	<b>Robot algorithms</b> Creating and debugging programs, and using logical reasoning to make predictions. (CS) (DL)	<b>Pictograms</b> Collecting data in tally charts and using attributes to organise and present data on a computer. (IT) (DL)	<b>Digital music</b> Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. (IT)	<b>Programming quizzes</b> Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. (CS) (DL)
<b>Year 3</b>	<b>Programming Connecting computers</b> Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. (CS) (IT)	<b>Stop-frame animation</b> Capturing and editing digital still images to produce a stop-frame animation that tells a story. (IT) (DL)	<b>Sequencing sounds</b> Creating sequences in a block-based programming language to make music. (CS) (IT)	<b>Branching databases</b> Building and using branching databases to group objects using yes/no questions. (CS) (IT)	<b>Desktop publishing</b> Creating documents by modifying text, images, and page layouts for a specified purpose. (IT)	<b>Events and actions in programs</b> Writing algorithms and programs that use a range of events to trigger sequences of actions. (CS) (IT)
<b>Year 4</b>	<b>The internet</b> Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. (CS) (IT)	<b>Audio production</b> Capturing and editing audio to produce a podcast, ensuring that copyright is considered. (IT) (DL)	<b>Repetition in shapes</b> Using a text-based programming language to explore count-controlled loops when drawing shapes. (CS) (IT)	<b>Data logging</b> Recognising how and why data is collected over time, before using data loggers to carry out an investigation. (CS) (IT)	<b>Photo editing</b> Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled. (IT) (DL)	<b>Repetition in games</b> Using a block-based programming language to explore count-controlled and infinite loops when creating a game. (CS) (IT)
<b>Year 5</b>	<b>Systems and searching</b> Recognising IT systems in the world and how some can enable searching on the internet. (CS) (IT)	<b>Video production</b> Planning, capturing, and editing video to produce a short film. (CS) (IT)	<b>Selection in physical computing</b> Exploring conditions and selection using a programmable microcontroller. (CS) (IT)	<b>Flat-file databases</b> Using a database to order data and create charts to answer questions. (IT)	<b>Introduction to vector graphics</b> Creating images in a drawing program by using layers and groups of objects. (IT)	<b>Selection in quizzes</b> Exploring selection in programming to design and code an interactive quiz. (CS) (IT)
<b>Year 6</b>	<b>Communication and collaboration</b> Exploring how data is transferred by working collaboratively online. (CS) (IT)	<b>Webpage creation</b> Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation. (IT) (DL)	<b>Variables in games</b> Exploring variables when designing and coding a game. (CS) (IT) (DL)	<b>Introduction to spreadsheets</b> Answering questions by using spreadsheets to organise and calculate data. (IT)	<b>3D modelling</b> Planning, developing, and evaluating 3D computer models of physical objects. (IT) (DL)	<b>Sensing movement</b> Designing and coding a project that captures inputs from a physical device (CS) (IT)