



## Progression of Skills Assessment Criteria

### Subject: Computing – 2025-2026



	Computer Science	DL & IT Beyond school	Information Technology
Nursery	<b>Computing is explored through continuous provision and Understanding the World</b>		
Reception	<ul style="list-style-type: none"><li>• Be able to give a floor robot instructions to make it move.</li><li>• Use simple software and explain what you are doing.</li><li>• Understand what happens when you click a button or touch an icon.</li></ul>	<p>Can identify a device that uses technology.</p> <ul style="list-style-type: none"><li>• Ask permission before using the Internet.</li><li>• Tell an adult if something worrying or unexpected happens whilst using technology.</li></ul> <p>Talk about technology that is used at home, in school and in the world around them.</p> <ul style="list-style-type: none"><li>• Use a safe part of the Internet to explore, play and learn.</li></ul>	<ul style="list-style-type: none"><li>• Talk about different kinds of information such as pictures, videos, text and sound.</li><li>• Use a mouse and touch screen to move objects on a screen.</li><li>• Create shapes and text on a screen.</li></ul>
Year 1	<ul style="list-style-type: none"><li>• Give instructions to a friend and follow their instructions to move around a space.</li><li>• Describe what happens when buttons are pressed on a robot or device.</li><li>• Press buttons in the correct order to make a robot follow a short sequence.</li><li>• Understand what an algorithm is and be able to create a simple algorithm.</li><li>• Understand and explain how algorithms are used in every day life.</li><li>• Begin to predict what will happen for a short sequence of instructions.</li><li>• Begin to use different software or applications to create movement and patterns on a screen.</li><li>• Use the word debug to correct an algorithm that doesn't work in the way it was intended.</li></ul>	<p>Understand why we need passwords.</p> <ul style="list-style-type: none"><li>• Understand that we must keep passwords private.</li><li>• Explain what personal information is.</li><li>• Understand that we must keep personal information private.</li><li>• Communicate safely and respectfully online.</li><li>• Know what to do when concerned about online content.</li><li>• Know what to do if someone tries to contact you online</li></ul> <p>Recognise that a range of digital devices and products can be considered computers.</p> <ul style="list-style-type: none"><li>• Recognise the ways in which technology is used in their homes and community.</li><li>• Understand that computers have no intelligence and can do nothing without being programmed.</li><li>• Begin to identify some of the benefits to using technology.</li></ul>	<p>Talk about the different ways in which information can be shown.</p> <ul style="list-style-type: none"><li>• Use technology to collect information, including photos, videos and sound.</li><li>• Sort different kinds of information and present it to others.</li><li>• Add information to a pictogram and talk about their findings.</li><li>• Use software with support, to create, store and edit digital content using appropriate file and folder names.</li><li>• Use the keyboard or a word bank on a device to enter text into a program.</li><li>• Understand some of the basic functions on a keyboard (Backspace, Caps Lock, Enter)</li><li>• Save information in a specific place and retrieve it again.</li><li>• Use technology to collect information, including photos, videos and sounds.</li></ul>
Year 2	<ul style="list-style-type: none"><li>• Understand what an algorithm is and demonstrate simple linear algorithms.</li><li>• Be able to explain the order needed to do things to make something happen and to talk about it as an algorithm.</li><li>• Programme a robot or software to do a particular task.</li><li>• Look at a basic program and explain what will happen.</li><li>• Use programming software and applications to make objects move.</li><li>• Use logical reasoning to predict and debug more complex programs.</li><li>• Can create and debug with improved confidence &amp; efficiency.</li><li>• Begin to program using simple block code.</li></ul>	<p>Understand the need to keep a password private.</p> <ul style="list-style-type: none"><li>• Understand the need to keep personal information private.</li><li>• Demonstrate the use of technology responsibly in terms of how we use it and the time we spend using it.</li><li>• Know how to report inappropriate content or contact online.</li></ul> <p>Children can explain why they use technology in the classroom, in their homes and in the community.</p> <ul style="list-style-type: none"><li>• Identify the benefits of using technology, such as creating content and communicating efficiently.</li><li>• Can identify a computer by knowing that it has inputs, a processor and outputs.</li><li>• Can identify parts of a computer including what an input and output is.</li></ul>	<p>Create a graph or chart using data collected on a specific topic area.</p> <ul style="list-style-type: none"><li>• Talk about the data that is shown in their chart or graph.</li><li>• Explain how investigating data can be used to answer a question.</li><li>• Use a variety of software to manipulate and present digital content in different ways with increasing independence.</li><li>• Talk about the different ways to use technology to collect information, including a camera or sound recorder.</li><li>• Use the keyboard on their device to add, delete, edit and format text.</li><li>• Talk about an online tool that will help them to share their ideas with other people.</li><li>• Save and open files on the device they use from a specific file location.</li></ul>

Year 3	<p>Understand how an algorithm is implemented using a sequence of precise instructions.</p> <ul style="list-style-type: none"> <li>Can predict the outcome of a sequence of precise instructions.</li> <li>Repeatedly test a program and recognise when they need to debug it.</li> <li>Detect a problem in an algorithm, which could result in a different outcome to the one intended.</li> <li>Understand what inputs and outputs are, how they can be used.</li> <li>Provide examples of how to use inputs and outputs effectively.</li> <li>Designs, writes, executes and debugs programs of increasing complexity that accomplish a specific goal.</li> <li>Use logical reasoning to predict and debug more complex programs including inputs and outputs.</li> </ul>	<p>Children consider their responsibilities and actions to others online.</p> <ul style="list-style-type: none"> <li>Children consider that all of the media they see could have been altered.</li> <li>Understand how to use a search engine responsibly and safely. Save and retrieve work online, on the school network and their own device.</li> <li>Tell you ways to communicate with others online.</li> <li>Knows how navigate the web responsibly.</li> <li>Can carry out effective web searches to collect digital content.</li> <li>Think about whether they can use images that they find online in their own work.</li> </ul>	<p>Understand the difference between data and information.</p> <ul style="list-style-type: none"> <li>Talk about the different ways data can be converted into information.</li> <li>Search a ready-made database to answer specific questions.</li> <li>Collect data to help answer questions about a specific topic or theme.</li> <li>Add to and edit an existing database.</li> <li>Combine a mixture of text, graphics and sound to share ideas and learning.</li> <li>Use appropriate keyboard commands to amend text.</li> <li>Be able to effectively use a spell checker.</li> <li>Evaluate their work and improve its effectiveness.</li> <li>Use an appropriate tool to share their work online.</li> </ul>
Year 4	<p>Design simple algorithms using loops and repeats, whilst detecting and correcting errors is debugging.</p> <ul style="list-style-type: none"> <li>Write and execute an efficient program, using loops such as forever, repeat &amp; repeat until commands.</li> <li>Decompose a problem into smaller parts with some verbal reasoning</li> <li>Has an understanding of how sequencing, using inputs and repetition in programs has specific effects on the output, works with 'loops' and understands their effect.</li> <li>Recognise that an algorithm will help to sequence more complex programs.</li> <li>Use logical reasoning to predict and debug more complex programs including loops and repeats.</li> </ul>	<ul style="list-style-type: none"> <li>Understand that media can be edited online for advertising and other purposes.</li> <li>Recognise what is acceptable and unacceptable behaviour when using technology and online services.</li> <li>Children understand how effective a strong password is and what a strong password looks like.</li> </ul> <p>Understand the difference between the Internet and online services such as the World Wide Web, instant messaging and email.</p> <ul style="list-style-type: none"> <li>Tell you whether a resource they are using is from the World Wide Web, the school network or their own work.</li> <li>Identify key words to use when searching safely on the World Wide Web.</li> <li>Show an awareness of a range of Internet services such as the World Wide Web, email and instant messaging.</li> <li>Explain how to check who owns photos, text and clipart.</li> </ul>	<p>Demonstrate the different ways data can be organized</p> <ul style="list-style-type: none"> <li>Demonstrate the different ways data can be converted into information.</li> <li>Make a branching database.</li> <li>Collect data and identify where it could be inaccurate.</li> <li>Plan, create and search a database.</li> <li>Select the best way to present data to a specific audience.</li> <li>Log data using a device.</li> <li>Use photos, video and sound to create an atmosphere when presenting to different audiences.</li> <li>Be confident to explore new media to extend what they can achieve.</li> <li>Change the appearance of text to increase its effectiveness depending on the audience or mood.</li> <li>Create, modify and present documents for a particular purpose and audience.</li> <li>Use a keyboard confidently and make use of a spellchecker to write and review their work.</li> <li>Use an appropriate tool to share their work and collaborate online.</li> <li>Be able to evaluate other people's work and give them constructive feedback to help them improve their work.</li> </ul>
Year 5	<p>Program a condition that uses a sensor to detect a change, which can select an action within a program.</p> <ul style="list-style-type: none"> <li>Decomposes more open-ended problems into smaller parts, provides some reasoning for their choices.</li> <li>Approaches a range of problems using computationally thinking concepts, helping them to design other algorithms for other specific outcomes.</li> <li>Design, write and execute an efficient program, including selection (IF...THEN) command.</li> <li>Change an input to a program to achieve a different output.</li> <li>Use logical reasoning to predict and debug more complex programs including selection.</li> <li>Uses programs linked to physical systems and sensors e.g. the alarm goes off when the sensor is triggered.</li> <li>Design, write and execute an efficient program, which demonstrates and understanding of the difference between, and appropriate use of IF...THEN, IF...THEN...ELSE, and nested IF statements.</li> </ul>	<p>Be aware of their digital footprint.</p> <ul style="list-style-type: none"> <li>Understand the dangers of building online relationships.</li> <li>Explain what the consequences might be to using technology inappropriately or accessing inappropriate content intentionally.</li> </ul> <p>Use different online tools for different purposes.</p> <ul style="list-style-type: none"> <li>Use a search engine effectively to find appropriate information and check the reliability of a website.</li> <li>Understand how search results are selected and ranked and the algorithms they use.</li> <li>Recognise and evaluate different types of information they find on the World Wide Web.</li> <li>Think about the reliability of information they read on the World Wide Web or other Internet services (Fake News).</li> </ul>	<p>Choose an appropriate tool to help them collect data.</p> <ul style="list-style-type: none"> <li>Present data in an appropriate way depending on the theme or audience.</li> <li>Use a spreadsheet and database to collect, record and evaluate data.</li> <li>Search a database using different operators to refine a search.</li> <li>Talk about errors in data and suggest how it could be checked.</li> <li>Use text, photo, sound and video editing tools to evaluate and refine their work.</li> <li>Be able to use a variety of familiar and unfamiliar software by using a pre existing skill set.</li> <li>Select, use and combine the appropriate technology tools to create effects in media.</li> <li>Select an appropriate online or offline tool to create and share ideas.</li> <li>Evaluate and improve their own work and support others in improving their work.</li> <li>Acknowledges sources of information appropriately.</li> </ul>

<b>Year 6</b>	<p>Understand the importance of planning, testing and correcting algorithms.</p> <ul style="list-style-type: none"> <li>• Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic &amp; evaluation.</li> <li>• Understand why sequence &amp; patterns are important when creating simple algorithms that are part of a more complex program.</li> <li>• Gives reasoning for each step within algorithms and applying them to a program.</li> <li>• Understand &amp; develop complex flow diagrams.</li> <li>• Use a variable to increase programming possibilities. • Use a variable and relational operators (e.g. <math>&lt; = &gt;</math>) within a loop to stop a program.</li> <li>• Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that program.</li> <li>• Use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</li> <li>• Use logical reasoning to predict and debug more complex programs including: selection, variables and operators.</li> </ul>	<p>Be aware of fake news and how to dissect it.</p> <ul style="list-style-type: none"> <li>• Understand the difference between misinformation and disinformation.</li> <li>• Understand what Copywriting is and using someone else's work responsibly.</li> <li>• Manage their conduct and contact appropriately and safely when using technology and online services.</li> </ul> <p>Explain the Internet services they need to use for different purposes.</p> <ul style="list-style-type: none"> <li>• Describe the different parts of a webpage.</li> <li>• Understands how to construct a website using basic HTML tags.</li> <li>• Explain what copyright is and acknowledge the sources of information that they find online.</li> <li>• Understands how data is transmitted across a network.</li> <li>• Understand what IP is and how it's used.</li> <li>• Can explain how networks use the Internet to send and receive data.</li> </ul>	<p>Select the most effective tool to collect data for their investigation.</p> <ul style="list-style-type: none"> <li>• Check the data they collect for accuracy and plausibility,</li> <li>• Plan the process needed to investigate a set environment or setting.</li> <li>• Interpret and present the data they collect.</li> <li>• Use the skills developed to interrogate a database.</li> <li>• Uses a range of strategies to increase the accuracy of keyword searches. Makes confident inferences about their effectiveness.</li> <li>• Talk about audience, atmosphere and structure when planning a particular media outcome.</li> <li>• Combine a range of media, recognising the contribution of each to achieve a particular outcome.</li> <li>• Confidently identify the potential of unfamiliar technology and how it can be used effectively.</li> <li>• Explain why they select a particular online tool for a specific purpose.</li> <li>• Be digitally discerning when evaluating the effectiveness of their own work and the work of others.</li> <li>• Recognise the importance of copyright and how to acknowledge the sources of information.</li> </ul>
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