



## NVPS Computing: Progression Map Knowledge and Skills

	Digital Literacy		Computer Science	Information Technology	
Year 1	<ul style="list-style-type: none"><li>•To know why I must keep my password private.</li><li>•To know what personal information is.</li><li>•To tell an adult when I see something unexpected or worrying online.</li><li>•To know why it's important to be kind and polite on line.</li><li>•To be able to recognise an age-appropriate website.</li></ul>	<ul style="list-style-type: none"><li>• To know the rules of using technology in the classroom.</li><li>• To be able to use links to websites to find information.</li><li>• To be able to identify some of the benefits of using technology</li><li>• To know what e-Safety rules are and to be able to follow them.</li></ul>	<ul style="list-style-type: none"><li>•To be able to use software/apps to create movement and patterns on a screen.</li><li>•To know what the word debug means and use it to correct mistakes when programming.</li><li>•To be able to give instructions to my friend (using forward, backward and turn) and physically follow their instructions.</li><li>•</li></ul>	<p><u>Handling Data</u></p> <ul style="list-style-type: none"><li>• To be able to talk about the different ways in which information can be shown.</li><li>• To know which technology to use to collect information, including photos, video and sound.</li><li>• To be able to use technology to sort different f information and present it to others.</li></ul>	<p><u>Multimedia</u></p> <ul style="list-style-type: none"><li>• To be able to experiment with different technology tools.</li><li>• To be able to use technology to create and present ideas.</li><li>• To be able to use the keyboard or a word bank on my device to enter text.</li><li>• To know how to save information in a special place and retrieve it again.</li></ul>
APPs	<ul style="list-style-type: none"><li>• Search engine fhttps://www.kiddle.co/or kids –</li><li>• Classroom management</li></ul>		<ul style="list-style-type: none"><li>• Scratch junior</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>	
Expected outcomes	<ul style="list-style-type: none"><li>• Can create new document using listed APPs by choosing appropriate layout</li><li>• Can type up a short text with simple sentences using the backspace/shift/space/ enter/underline/bold/ punctuation keys appropriately, moving to a specific place in the text</li><li>• Can change the text colour/size/font in a basic word package</li><li>• Can combines text and images</li><li>• Can save their work with support from an adult</li></ul>				

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Year 2	<ul style="list-style-type: none"><li>•To be able to explain why I need to keep my password and personal information private.</li><li>•To know why I should go online for a short amount of time.</li><li>•To know why it is important to be kind and polite online and in real life.</li></ul>	<ul style="list-style-type: none"><li>• To know the benefits of using technology including finding information, creating and communicating. To know the differences between the Internet and things in the physical world.</li><li>• I know that not everyone is who they say they are on the Internet</li></ul>	<ul style="list-style-type: none"><li>• To know which order to follow to make something happen and talk about this as an algorithm.</li><li>• To know how to program a robot or software to do a particular task.</li><li>• To know how to use programming software to make objects move.</li><li>• To watch a program, execute and spot where it goes wrong so that I can debug it.</li></ul>	<ul style="list-style-type: none"><li>• To be able to use technology in different ways to collect information, including a camera, microscope or sound recorder.</li><li>• To be able to make and save a chart or graph using the data I collect.</li><li>• To be able to talk about the data that is shown in my chart or graph.</li></ul>	<ul style="list-style-type: none"><li>• To know how to use technology to organise and present ideas in different ways</li><li>• To know which online tool can be used to help share ideas with other people.</li><li>• To know how to save and open files on the device.</li></ul>
APPs	<ul style="list-style-type: none"><li>• Search engine fhttps://www.kiddle.co/or kids –</li><li>• Classroom management</li><li>• Me online / Us online</li></ul>		<ul style="list-style-type: none"><li>• Scratch Junior</li><li>•</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>	
Expected outcomes	<ul style="list-style-type: none"><li>• Can use bold, italic, underline, text alignment and shift to create punctuation appropriately</li><li>• Load file from a folder</li><li>• Knows that text and images can be formatted (changed)</li><li>• Save own work into a folder mostly independently</li></ul>				

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Year 3	<ul style="list-style-type: none"><li>•To know what makes a password secure and why it is important.</li><li>•To know how to protect my personal information when I do different things online.</li><li>•To know how to use the safety features of websites as well as reporting concerns to an adult.</li><li>•To know which websites and games are appropriate for my age.</li><li>•To be able to make good choices about how long I spend online.</li></ul>	<ul style="list-style-type: none"><li>• To know how to save and retrieve work on the Internet, the school network or my own device.</li><li>• To be able to use search tools to find and use an appropriate website.</li><li>• To know whether to use online images in own work.</li><li>• To know to ask an adult before downloading files.</li></ul>	<ul style="list-style-type: none"><li>• To know that an open-ended problem needs to be broken into smaller parts.</li><li>• To know how to put programming commands into a sequence to achieve a specific outcome.</li><li>• To know how to test a program and to recognise when it needs to be debugged.</li><li>• To be able to use repeat commands.</li><li>• To be able to describe the algorithm for a simple task.</li><li>• To understand branching databases</li></ul>	<ul style="list-style-type: none"><li>• To be able to discuss different ways in which data can be organised.</li><li>• To be able to search a ready-made database to answer questions.</li><li>• To be able to collect to answer a question.</li><li>• To add information to a database.</li><li>• To be able to make a branching database.</li><li>• To be able use an appropriate tool to share work online.</li></ul>	<ul style="list-style-type: none"><li>• To be able to create different effects (page/text background colour /boarders) with different technology tools.</li><li>• To be able to combine a mixture of text, graphics and sound to share my ideas and learning.</li><li>• To be able to use appropriate keyboard commands to amend text, including spellcheck.</li><li>• To be able to evaluate own work and improve its effectiveness.</li></ul>
APPs	<ul style="list-style-type: none"><li>• Search engines</li><li>• Classroom management</li><li>• Me online Digital Gamers</li></ul>		<ul style="list-style-type: none"><li>• Scratch junior</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>	
Expected Outcomes	<ul style="list-style-type: none"><li>• Can copy and paste text, images and web addresses from other sources (digital camera, internet site)</li><li>• Can change page set-up e.g. portrait to landscape</li><li>• Can use cut and paste to re-order text</li><li>• Uses bullet points, speech bubbles, auto shapes and text boxes to enhance their work, bold, italic, underline, text alignment and shift to create punctuation appropriately</li><li>• Create and label simple graph</li><li>• Use Seesaw to hand out their work to the teacher</li></ul>				

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Year 4	<ul style="list-style-type: none"><li>• To be able to choose a secure password and screen name if using the website.</li><li>• To know to protect themselves and others from harm online.</li><li>• To know the safety features of websites as well as reporting concerns to an adult.</li><li>• To know that anything shared online can be seen by others.</li><li>• To know how to choose websites, apps and games that are age appropriate.</li><li>• To know to ask an adult before downloading files.</li><li>• To be able to comment positively and respectfully online</li></ul>	<ul style="list-style-type: none"><li>• To be able to identify whether a used resource is on the Internet, the school network or own device.</li><li>• To be able to use key words when searching safely on the World Wide Web.</li><li>• To know about the reliability of information read on the World Wide Web.</li><li>• To know how to create a hyperlink to a resource on the World Wide Web.</li></ul>	<ul style="list-style-type: none"><li>• To be able to use an efficient procedure to simplify a program.</li><li>• To be able to use a sensor to detect a change which can select an action within my program.</li><li>• To know that program needs to be tested while put together.</li><li>• To be able to use a variety of tools to create a program.</li><li>• To be able to recognise an error in a program and debug it.</li><li>• To know that an algorithm will help me to sequence more complex programs.</li><li>• To know that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</li></ul>	<ul style="list-style-type: none"><li>• To be able to organise data in different ways.</li><li>• To be able collect data and identify where it could be inaccurate.</li><li>• To be able to plan, create and search a database to answer questions.</li><li>• To be able to choose the best way to present data to my friends.</li></ul>	<ul style="list-style-type: none"><li>• To be able to use photos, video and sound to create an atmosphere when presenting to different audiences.</li><li>• To be confident to explore new media to extend what I can achieve.</li><li>• To be able to change the appearance of text to increase its effectiveness.</li><li>• To be able to create, modify and present documents for a particular purpose.</li><li>• To be able to use a keyboard confidently and make use of a spellchecker to write and review work.</li><li>• To be able to use an appropriate tool to share own work and collaborate online.</li><li>• To be able to give constructive feedback classmates to help them improve their work and refine own work.</li></ul>
APPs	<ul style="list-style-type: none"><li>• Search engines</li><li>• Classroom management</li><li>• E-safety lesson</li><li>• Seesaw – links</li></ul>		Scratch		
Expected Outcomes	<ul style="list-style-type: none"><li>• Edits text and use a variety of presentation techniques and explaining choices of layout and formatting</li><li>• Can draft and redraft their written work by deleting, inserting and replacing text to improve clarity and create mood</li><li>• Can combine text graphics, sounds and a hyperlink in a presentation package and include simple animation (e.g. PowerPoint, iMovie)</li><li>• Create their own folders in their pupil folder to organise their work</li><li>• Use Seesaw confidently to hand out their work and recognise that work can be improved</li></ul>				



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	Digital Literacy		Computer Science	Information Technology	
<b>Year 5</b>	<ul style="list-style-type: none"> <li>To be able to explain that being protective is important and the best ways to do so are reporting concerns to an adult.</li> <li>To know that anything posted online can be seen, used and may affect others.</li> <li>To be able to talk about the dangers of spending too long online or playing a game.</li> <li>To know the importance of communicating kindly and respectfully.</li> <li>To know the importance of choosing an age-appropriate website, app or game.</li> <li>To know that computer or device need to be protected from harm.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to use different online communication tools for different purposes.</li> <li>To be able to use a search engine to find appropriate information and check its reliability.</li> <li>To be able to recognise and evaluate different types of information found on the World Wide Web.</li> <li>To be able to describe the different parts of a webpage.</li> <li>To know which resources on the Internet can be downloaded and used.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</li> <li>To be able to refine a procedure using repeat commands to improve a program.</li> <li>To know how to use a variable to increase programming possibilities.</li> <li>To know how to change an input to a program to achieve a different output.</li> <li>To be able to use 'if' and 'then' commands to select an action.</li> <li>To be able to use logical reasoning to detect and debug mistakes in a program.</li> <li>To be able to use logical thinking, imagination and creativity to extend a program.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to use a spreadsheet and database to collect and record data.</li> <li>To be able to choose an appropriate tool to help me collect data.</li> <li>To be able to present data in an appropriate way.</li> <li>To be able to discuss mistakes in data and suggest how it could be checked.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to use text, photo, sound and video editing tools to present and refine my work.</li> <li>To be able to select, use and combine the appropriate technology tools to create effects that will have an impact on others.</li> <li>To be able to select an appropriate online or offline tool to create and share ideas.</li> <li>To be able to review and improve own work and support others to improve their work.</li> </ul>
<b>APPs</b>	<ul style="list-style-type: none"> <li>Search engines</li> <li>Classroom management</li> <li>Esafety lessons</li> </ul>		<ul style="list-style-type: none"> <li>Scratch</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	



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<b>Expected Outcomes</b>	<ul style="list-style-type: none"> <li>•Begin to select appropriate tool and application independently</li> <li>•Can plan and organise their work independently</li> <li>•Can move, rotate and re-size shapes/images using picture format tool</li> <li>•Can extend use of multimedia presentation to include importing images, hyperlinks and sounds recorded independently</li> <li>•Can use transitions and animations in a movie or presentations independently</li> <li>•Can evaluate own multimedia pages and recognise the features of good page design</li> <li>•Can create own movie/short animation combining pictures, text, sound</li> <li>•Use Seesaw independently to hand out, receive and begin improving their work</li> </ul>
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	Digital Literacy		Computer Science	Information Technology	
<b>Year 6</b>	<ul style="list-style-type: none"> <li>•To know the consequences of sharing personal information online.</li> <li>•To know the consequences of spending too much time online or on a game.</li> <li>•To know the consequences of not communicating kindly and respectfully.</li> <li>•To know how to protect my computer or device from harm on the Internet.</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to select appropriate Internet services to fit different purposes.</li> <li>• To know how information is transported on the Internet.</li> <li>• To be able to select an appropriate tool to communicate and collaborate online.</li> <li>• To know the way search results are selected and ranked.</li> <li>• To be able to check the reliability of a website.</li> <li>• To know what copyright is and acknowledge the sources of information that can be found online.</li> <li>• To know that websites can use personal data to make money and target their advertising</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to deconstruct a problem into smaller steps, recognising similarities to solutions used before.</li> <li>• To be able to explain and program each of the steps in own algorithm.</li> <li>• To be able to evaluate the effectiveness and efficiency of own algorithm while continually testing the programming of that algorithm.</li> <li>• To know when to use a variable to achieve a required output.</li> <li>• To be able to use a variable and operators to stop a program.</li> <li>• To be able to use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</li> <li>• To be able to use logical reasoning to detect and correct errors in a algorithms and programs.</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to select the most effective tool to collect data for my investigation.</li> <li>• To know how to check the collected data for accuracy and plausibility.</li> <li>• To be able to interpret collected data.</li> <li>• To be able to present collected data in an appropriate way.</li> <li>• To use own developed skills to interrogate a database.</li> </ul>	<ul style="list-style-type: none"> <li>• To be aware of audience, atmosphere and structure when planning a particular outcome.</li> <li>• To confidently identify the potential of unfamiliar technology to increase creativity.</li> <li>• To be able to combine a range of media, recognising the contribution of each to achieve a particular outcome.</li> <li>• To be able to select a particular online tool for a specific purpose.</li> <li>• To be digitally discerning when evaluating the effectiveness of own work and the work of others.</li> </ul>



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<b>APPs</b>	<ul style="list-style-type: none"><li>• Search engines</li><li>• Classroom management</li><li>• Esafety lessons</li></ul>	<ul style="list-style-type: none"><li>• Scratch</li></ul>	
<b>Expected Outcomes</b>	<ul style="list-style-type: none"><li>• Can select appropriate tool and application independently</li><li>• Can combines the use of ICT tools for different purposes and audience</li><li>• Has consistency across documents and presentations, using the same styles of font, colour, size for headings, body text, etc.</li><li>• Can make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience.</li><li>• Can create a range of hyperlinks and produce a non-linear, interactive presentation.</li><li>• Use Seesaw to hand, receive and improve work</li></ul>		

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