

Computing Whole School Progression Map 2021-22

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
E-safeguarding	Remember rules without needing an adult to remind them. Match their developing physical skills to tasks and activities in the setting. Explore how things work.	<p>eS1 Always ensure a trusted adult knows what you are doing online and inform a trusted adult if you come across online content that makes you feel sad, scared or confused.</p> <p>eS2 Understand the need to always be kind and considerate to others in the real world and the virtual world.</p> <p>eS3 Understand that the internet is fun but just like there are rules in the real world to keep you safe there are rules for keeping you safe in the online world.</p>	<p>eS1 Always ensure a trusted adult knows what you are doing online and inform a trusted adult if you come across online content that makes you feel sad, scared or confused.</p> <p>eS2 Understand the need to always be kind and considerate to others in the real world and the virtual world.</p> <p>eS3 Understand that the internet is fun but just like there are rules in the real world to keep you safe there are rules for keeping you safe in the online world.</p> <p>eS4 Understand the concept of a trusted adult and identify your circle of trusted adults.</p>	<p>eS5 Understand login details and passwords should only be shared with trusted adults.</p> <p>eS6 Understand that you can be connected to many people in your life (real life and online).</p> <p>eS7 Understand that when you communicate & play games online always be polite and respectful.</p> <p>eS8 Understand the need to talk to your trusted adult before sharing information about yourself online.</p> <p>eS9 Understand that some of the people you interact with online may not be who they say they are.</p>	<p>eS10 Understand the dangers of clicking links sent from people you do not know.</p> <p>eS11 Understand and identify personal information about yourself and others.</p> <p>eS12 Understand that sharing personal information is dependent on who you share it with.</p> <p>eS13 Understand the potential consequences of sharing personal information with strangers.</p> <p>eS14 Understand that bullying through the use of technology is called cyberbullying and how to report it.</p> <p>eS15 Understand that not all information you access online is accurate or reliable</p>	<p>eS16 Understand that many sites and games have age limits or PEGI ratings and the importance of only accessing content appropriate to your age.</p> <p>eS17 Understand how personal information you submit online can be shared with others and the possible consequences of this.</p> <p>eS18 Explain what steps you can take to ensure information you submit online is only accessed by the people you trust.</p> <p>eS19 Explore the similarities and differences of virtual and real world communication to develop an understanding of positive online communication.</p> <p>eS20 Be able to use strong passwords for all online accounts and devices and ensure they are locked when not used.</p>	<p>eS21 Understand the terms plagiarism and copyright and be aware of the implications of copying and sharing content without permission.</p> <p>eS22 Understand the importance of using trusted sites and carrying out multiple searches to ensure information found online is accurate and reliable.</p> <p>eS23 Understand how to use blocking / unsubscribing / reporting mechanisms if you come across online content / interactions that are unsolicited or make you feel sad, scared, threatened or confused.</p> <p>eS24 Understand the need to know and control who you interact with online, that the information you share online can be stored and shared with others and is almost impossible to remove.</p> <p>eS25 Understand the causes and consequences of cyberbullying and discuss behaviours and strategies to prevent and stop cyberbullying.</p>	<p>eS23 Understand how to use blocking / unsubscribing / reporting mechanisms if you come across online content / interactions that are unsolicited or make you feel sad, scared, threatened or confused.</p> <p>eS24 Understand the need to know and control who you interact with online, that the information you share online can be stored and shared with others and is almost impossible to remove.</p> <p>eS25 Understand the causes and consequences of cyberbullying and discuss behaviours and strategies to prevent and stop cyberbullying.</p> <p>eS26 Understand the need to have a balanced lifestyle and be aware of the impact of too much 'screen time' and games / internet addiction.</p> <p>eS27 Understand the concept of a 'digital footprint', the long term implications of content you publish online and the importance of developing a 'positive online image'.</p> <p>eS28 Understand the need to ensure all devices you use to access online content are appropriately configured and secure.</p> <p>eS29 Understand the need to evaluate whether games, websites and social media are appropriate for specific ages.</p>
Computer Science	Show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.		<p>CS1 Understand what an algorithm is</p> <p>CS2 Understand that digital devices work using programs</p> <p>CS3 Control devices through a series of clear instructions</p> <p>CS4 Recognise common uses of technology beyond school</p>	<p>CS5 Understand that real and virtual devices can be controlled by sequences of commands</p> <p>CS6 Plan a set of commands to achieve a specific outcome</p> <p>CS7 Predict the outcome of an algorithm using logical reasoning</p> <p>CS8 control devices through a series of commands</p> <p>CS9 Write, test and debug simple programs</p> <p>CS10 Understand the benefits of using technology beyond school.</p>	<p>CS11 Create, refine and debug a series of commands for virtual programmable devices.</p> <p>CS12 Understand and identify simple input and outputs.</p> <p>CS13 Create simple programs combining inputs and outputs.</p> <p>CS14 Use repetition in programs to write code using the least number of lines and improving efficiency.</p> <p>CS19 Use selection in their coding.</p>	<p>CS15 Understand and explore different game genres and what makes a good game.</p> <p>CS16 Understand that games, apps and web content are made of code.</p> <p>CS17 Debug existing code to improve it.</p> <p>CS18 Design and code a simple game.</p> <p>CS19 Use selection in their coding.</p> <p>CS20 Transfer existing coding skills between applications.</p>	<p>CS21 Solve problems by decomposing them into smaller parts.</p> <p>CS22 Convert lines of code into everyday language and vice versa.</p> <p>CS23 Understand and use variables.</p> <p>CS24 Use selection in programming to create a game aimed at an audience.</p> <p>CS25 To become familiar with inputs and outputs and create programs using them to control or simulate physical systems.</p> <p>CS26 Understand what networks (including the internet) are and how they are used to transfer information</p>	<p>CS27 To design, write and debug a program to solve a problem.</p> <p>CS28 Include more complex selection linked to variables to programs. Create a program where an event is triggered by a sensor.</p> <p>CS29 To understand that the internet is made up of networks of computers around the world that can provide multiple services.</p>
Media		<p>ELG</p> <p>Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.</p>	<p>M1 Communicate simple ideas through the use of text, images and sounds.</p> <p>M2 Understand sound and music can be created using a range of simple technology.</p>	<p>M6 Make simple changes to improve the look and clarity of their work.</p> <p>M7 Organise and communicate ideas for a specific purpose using</p>	<p>M12 Combine and refine text, sound and graphics to communicate information for a given audience.</p> <p>M13 Recognise the key features of different types of</p>	<p>M18 Capture appropriate, quality still and moving images.</p> <p>M19 Develop an understanding of differing film shots and their effective use.</p> <p>M20 Create a 2D plan view using basic shapes.</p>	<p>M25 Create and amend a range of 2D graphic representations using appropriate applications.</p> <p>M26 Create simple 3D graphics using a CAD application.</p> <p>M27 Plan, create and edit an animation, film, slideshow or</p>	<p>M30 Independently combine various forms of media purposefully as part of a project.</p> <p>M31 Use a CAD application (3D design tool) to create a representation of an object.</p> <p>M32 Edit and manipulate multi-track music and sound and refine for a given audience or project.</p>

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Data Handling

Information Literacy

	<p>Explain the reasons for rules, know right from wrong and try to behave accordingly.</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>M3 Record sound using simple technologies and play back the recordings.</p> <p>M4 Create an image/animation in a simple graphics application.</p> <p>M5 Capture images using a range of technologies and share with others.</p>	<p>appropriate layout and media.</p> <p>M8 Record, locate and review sounds and add them to their digital creations.</p> <p>M9 Add music and or a sound to affect the mood and atmosphere of their work.</p> <p>M10 Capture and create images in different graphic applications.</p> <p>M11 Understand and create simple animations.</p>	<p>information/genres and use appropriate layouts.</p> <p>M14 Understand how audio can enhance multimedia projects including radio and films by creating/choosing appropriate audio to fit a given context.</p> <p>M15 Capture, create and enhance new and existing digital images to communicate ideas.</p> <p>M16 Plan and create a simple animation.</p> <p>M17 Understand that evaluation and improvement is a vital part of a design process and technology allows changes to be made quickly and efficiently.</p>	<p>M21 Plan, create and edit an animation, film or slideshow.</p> <p>M22 Compose, combine and refine music or sounds.</p> <p>M23 Identify features of good digital creation design.</p> <p>M24 Collect, create and insert appropriate (fit for purpose) graphics and sound files to create a multimedia presentation.</p>	<p>presentation, then reflect on its efficacy.</p> <p>M28 Source, edit and refine music and sound for a given audience or project.</p> <p>M29 Develop criteria for evaluating theirs and others work.</p>	<p>M33 Evaluate and adapt individual features to enhance the overall presentation.</p>
		<p>DH1 Sort, organise and classify objects based on their properties.</p> <p>DH2 Represent and interpret simple data as pictograms</p>	<p>DH3 Represent information as a simple block graph or pictogram.</p> <p>DH4 Organise and interpret data as a simple graph.</p> <p>DH5 Sort and answer questions using yes/no answers.</p>	<p>DH6 Collect and organise information to find answers to questions.</p> <p>DH7 Create different graphs that show data for different purposes across the curriculum.</p> <p>DH8 Store and access data using a database.</p>	<p>DH9 Represent data in a database using appropriate data types.</p> <p>DH10 Turn questions into search criteria and use database tools to find answers.</p> <p>DH11 Use a spreadsheet to enter data and perform simple calculations.</p> <p>DH12 Convert data in a spreadsheet into different graph types for different purposes.</p> <p>DH13 Change elements of a spreadsheet and understand the effects on other calculations.</p>	<p>DH14 Create charts using appropriate data to interpret and answer a specific question.</p> <p>DH15 Create a database to store and search relevant information.</p> <p>DH16 Interrogate a database using suitable questions.</p> <p>DH17 Use technology to search and sift through large amounts of different types of information.</p> <p>DH18 Use a range of calculations and functions in a spreadsheet.</p> <p>DH19 Use a spreadsheet to model given problems.</p>	<p>DH20 Identify and collect appropriate data to answer their questions.</p> <p>DH21 Use data in an appropriate application to test a theory/hypothesis.</p> <p>DH22 Refine, search, filter, sort and graph data for purpose in a database or spreadsheet.</p> <p>DH23 Use a spreadsheet to create real life models of information to offer a solution to a real life problem.</p> <p>DH24 Collect and represent data using infographics.</p>
	<p>Knows that information can be retrieved from computers</p> <p>Show resilience and perseverance in the face of a challenge.</p> <p>Know and talk about the different factors that support their overall health and wellbeing, sensible amounts of 'screen time'.</p> <p>Develop their small motor skills so that they can use a range of Tools competently, safely and confidently.</p>	<p>IL1 Access information comes from a variety of different sources and understand technology allows quick access to these resources.</p> <p>IL2 Explore a variety of digital information as part of a given topic.</p> <p>IL3 Find / access information using technology.</p>	<p>IL4 Identify information through a range of appropriate forms of media.</p> <p>IL5 Recognise the layout of a web page and interact with it appropriately.</p> <p>IL6 Search for information using child friendly search engines.</p>	<p>IL7 Use search technologies effectively by identifying specific keywords.</p> <p>IL8 Find and choose appropriate information and use it in other digital forms.</p> <p>IL9 Locate specific information online and recognise that web pages can be organised in different ways.</p>	<p>IL10 Carry out and modify searches developing keywords to improve search accuracy.</p> <p>IL11 Check the relevancy and accuracy of search results.</p> <p>IL12 Locate online content using some of the available advanced features in search engines.</p>	<p>IL13 Interpret and validate information from a range of online sources.</p> <p>IL14 Recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate.</p> <p>IL15 Search for and save differing types of media using search engine functions.</p> <p>IL16 Use more advanced features of search engines.</p>	<p>IL17 Check plausibility of information from a variety of chosen sources on the same topic.</p> <p>IL18 Make informed judgments as to the validity of information on a website and be aware of bias.</p> <p>IL19 Understand how search engines work and rank results.</p>



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Vocabulary Progression	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Mixed age classes