

# PROGRESSION OF SKILLS - COMPUTING



	EYFS	Year 1	Year 2
<b>Objectives</b>	<p><i>There are no ELG statements that relate to Computing objectives, however, it is still expected that children will be introduced and experience appropriate technology within the provision.</i></p> <p>To show an interest, understand and interact in age appropriate technology. (iPad, Interactive whiteboard, YOTO player, Bee-Bots, laptop)</p> <p>To know how to operate and program simple equipment/programs (Logging in to iPad, selecting apps, QR codes, selecting tools on IWB, Purple Mash, programming Bee-Bots)</p> <p>To begin to understand about e-safety</p>	<p><b>Computer Science</b></p> <ul style="list-style-type: none"> <li>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>create and debug simple programs</li> <li>use logical reasoning to predict the behaviour of simple programs</li> </ul> <p><b>Information Technology</b></p> <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>recognise common uses of information technology beyond school</li> </ul> <p><b>Digital Literacy</b></p> <ul style="list-style-type: none"> <li>use technology safely and respectfully, keeping personal information private</li> <li>identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</li> </ul>	
<b>Key Skills</b>	<p><b>NURSERY</b></p> <ul style="list-style-type: none"> <li>I can explore a range of electronic device</li> <li>I can interact with age appropriate software and apps with support and guidance from my teacher</li> </ul> <p><b>RECEPTION</b></p> <ul style="list-style-type: none"> <li>I can switch on and off a range of digital devices (iPads/Laptops)with adult support</li> <li>I can use a mouse/touch screen</li> <li>I can interact with age appropriate software and apps</li> <li>I can use the equipment safely and with care</li> </ul>	<ul style="list-style-type: none"> <li>I can switch on and off a range of digital devices (iPads/Laptops)</li> <li>I can log on/off digital devices</li> <li>I can load programs with support (laptop) and open/close apps on the iPad</li> <li>I can use a mouse pad to navigate an age appropriate website/program</li> <li>I can use the mouse pad to select/drag and position an object</li> <li>I can talk about what I am doing with a computer/digital device using the correct vocabulary (eg screen/keyboard/laptop/mouse etc)</li> </ul>	<ul style="list-style-type: none"> <li>I can develop an awareness of the keyboard layout and use of a mouse, eg. use the mouse or arrow keys to insert words or sentences</li> <li>I can use the backspace/undo function if I make a mistake</li> <li>I can use the shift key for capital letters</li> <li>I can change the font/size/colour and style of text</li> <li>I can start to use two hands when typing</li> </ul>
<b>Computer Science</b>	<p><b>NURSERY</b></p> <ul style="list-style-type: none"> <li>press buttons on different devices and watch what happens</li> <li>make choices with toys, software and apps</li> </ul>	<ul style="list-style-type: none"> <li>use the term algorithm</li> <li>follow and give instructions to move around to complete a simple task – give a friend an set of instructions to complete a task e.g how to put on a coat</li> </ul>	<ul style="list-style-type: none"> <li>use and understand the term “algorithm”</li> <li>create simple programs and find the “bugs” in them</li> <li>predict the outcomes of their algorithms and programs</li> </ul>

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	<p><b>RECEPTION</b></p> <ul style="list-style-type: none"> <li>• help adults operate equipment around the school</li> <li>• press buttons on floor robots and begin to talk about the movements</li> <li>• make choices with toys, software and apps</li> </ul>	<ul style="list-style-type: none"> <li>• explore a range of control toys and digital devices (Bee bots/microphones/iPad apps)</li> <li>• give a sequence of instructions to complete a simple task (2-3 on a bee bot)</li> <li>• record instructions with pictures</li> <li>• discuss what they think will happen when the instructions are followed</li> <li>• navigate a bee bot around a floor mat/course</li> <li>• start to “debug” mistakes and begin to predict changes to a set of instructions</li> </ul>	<ul style="list-style-type: none"> <li>• to give commands that include directional and positional language (distance and turn)</li> <li>• program, execute and debug a device</li> <li>• create a set of instructions to complete a simple task (e.g drawing a triangle)</li> <li>• discuss and improve their commands</li> <li>• to begin to answer “what if?” questions (e.g. what if I change the distance to ...?)</li> <li>• predict and test their idea</li> <li>• compare similarities between on screen and floor devices</li> </ul>
<p><b>Information Technology</b></p>	<p><b>NURSERY</b></p> <ul style="list-style-type: none"> <li>• look at photos and familiar pictures on the iPads</li> <li>• I can start to use devices for a purpose</li> </ul> <p><b>RECEPTION</b></p> <ul style="list-style-type: none"> <li>• understand that things can be created by different technology</li> <li>• understand that they can share things they create</li> <li>• begin to recognise that the internet can be a place to learn and play</li> </ul>	<ul style="list-style-type: none"> <li>• recognise and discuss examples of IT within the home and school</li> <li>• understand that there are online tools that can help us communicate (use a digital device to take a photograph, use a paint package to create a picture)</li> <li>• look at how data is represented digitally (make a pictogram and interpret with support)</li> </ul>	<ul style="list-style-type: none"> <li>• to begin to understand that there are a wide variety of information resources and to begin to understand the differences between them</li> <li>• understand that there are different types of content on websites and that some of them may not be true</li> <li>• to compare the different ways that messages can be sent (letter, email, message) and start to consider their advantages/disadvantages</li> <li>• to know that you can improve the presentation of a piece of work by changing font, colour and style</li> <li>• use different layouts and templates for different purposes</li> <li>• understand that folders are used to organise files on a computer</li> </ul>
<p><b>Digital Literacy</b></p>	<p><b>Multimedia NURSERY</b></p> <ul style="list-style-type: none"> <li>• start to use devices for a purpose</li> </ul>	<ul style="list-style-type: none"> <li>• know that we can communicate online (email/text)</li> <li>• to contribute to a class email or respond to a message</li> </ul>	<ul style="list-style-type: none"> <li>• to contribute and respond to an email (with support from a teacher)</li> <li>• to look at others work online and discuss, ensuring permissions are gained</li> </ul>

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	<p><b>RECEPTION</b></p> <ul style="list-style-type: none"> <li>• use a mouse to rearrange objects on a screen</li> <li>• recognise text and images when using ICT</li> <li>• use a camera to take photographs</li> <li>• use a simple paint program to create a picture</li> <li>• age appropriate websites and apps</li> </ul>	<ul style="list-style-type: none"> <li>• follow age appropriate links provided by the teacher to research information</li> </ul> <p><b>Multimedia</b></p> <ul style="list-style-type: none"> <li>• use a camera/video to record an activity</li> <li>• record own voice and playback on small microphones</li> <li>• create simple sounds and music phrases using apps/programs</li> <li>• add text and images to a document</li> <li>• begin to use the keyboard to write simple sentences/captions</li> <li>• know when and how to use the space bar</li> <li>• to access websites/information using a QR code with support</li> </ul>	<ul style="list-style-type: none"> <li>• to consider who can see their work</li> </ul> <p><b>Multimedia</b></p> <ul style="list-style-type: none"> <li>• use a wide range of effects and tools a paint program and talk about their choices</li> <li>• explore sound and music in animation</li> <li>• create own documents using text and images, save and retrieve</li> <li>• Using the keyboard to enter text and Shift to type capital letters</li> <li>• to create and interpret pictograms and graphs</li> <li>• question how to collect and generate data to find answers</li> <li>• to access websites and documents using a QR code independently</li> </ul>
<p><b>E Safety</b></p>	<p><b>NURSERY</b></p> <ul style="list-style-type: none"> <li>• use an iPad alongside a familiar adult, and use the smartboard software when an adult has said this is ok</li> </ul> <p><b>RECEPTION</b></p> <ul style="list-style-type: none"> <li>• Talk about good and bad choices in real life (taking turns/ being a friend etc)</li> <li>• ask an adult when they want to use the internet</li> <li>• tell an adult when something worrying or unexpected happens when online</li> <li>• talk about time restrictions and how long I should be on a device</li> </ul>	<ul style="list-style-type: none"> <li>• recognise that there may be people online that may make us feel sad, embarrassed or upset</li> <li>• give examples of when and how to speak to an adult if they feel unsafe</li> <li>• use the internet with support to communicate to people they know</li> <li>• explain why it is important to be nice online</li> <li>• ask an adult for permission before uploading online</li> <li>• identify rules that keep us safe when online</li> <li>• begin to understand “ownership” and some personal data online</li> <li>• explain what a password is and why it keeps us safe</li> <li>• say why something online belongs to them (eg it is my idea, my picture)</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why you need to keep your password and personal data private</li> <li>• describe things that happen online that an adult should be told about and discuss how it makes you feel</li> <li>• talk about why it is important to be kind online and in real life</li> <li>• know that not everyone online is who they say they are</li> <li>• know how people might look different online</li> <li>• give examples of bullying behaviour and what it might look like online</li> <li>• know who to talk to if they make a mistake online</li> <li>• rules and expectations in different situations</li> </ul>

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		<ul style="list-style-type: none"><li>• save their work so others know it belongs to them</li><li>• introduce the idea of consent when taking photographs of our friends</li><li>• learn that many websites ask for personal information and how to handle this</li><li>• use age appropriate websites</li><li>• agree and follow e-safety rules together</li></ul>	<ul style="list-style-type: none"><li>• consent when taking photographs</li></ul>
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