



	COMPONENTS of KNOWLEDGE							
	30-50	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
e-Safety	<p>Able to be careful with technology devices</p> <p>Understand how to be a kind friend.</p>	<p>Able to ask an adult when I want to use the internet.</p> <p>Able to tell an adult when something unexpected happens whilst using the internet.</p> <p>Able to talk about the amount of time spent on a computer/tablet/game.</p>	<p>Understand that a password is kept private.</p> <p>Able to explain what personal information is.</p> <p>Able to tell an adult when something unexpected/worrying happens online.</p> <p>Recognise an age appropriate website</p> <p>Able to discuss why it's important to be kind and polite.</p> <p>Agree and follow sensible e-safety rules.</p>	<p>Explain why it is important to keep passwords and personal information private.</p> <p>Able to describe the things that happen online and share any concerns with an adult.</p> <p>Able to explain why it's important to be kind and polite online and in real life.</p> <p>Understand that not everyone is who they say they are on the internet.</p>	<p>Understand what makes a secure password and why they are important.</p> <p>Understand why and how to protect personal information online.</p> <p>Use the safety features of websites and report concerns to an adult.</p> <p>Recognise which websites and games are age appropriate.</p> <p>Know how to make good choices about how long is spent online.</p> <p>Understand the importance of asking a trusted adult before downloading files and games from the internet.</p> <p>Understand the importance of posting positively online.</p>	<p>Know how to choose a secure password and appropriate screen name when using a website.</p> <p>Able to explain how to protect themselves and friends from harm online.</p> <p>Use the safety features of websites and report concerns to an adult.</p> <p>Understand that anything shared online can be seen by others.</p> <p>Independently choose websites, apps and games which are age appropriate.</p> <p>Able to help friends make good choices about how long they spend online.</p> <p>Able to explain why it is important to ask a trusted adult before downloading files and games from the internet.</p> <p>Understand the importance of and able to comment positively and respectfully online and through text messages</p>	<p>Independently chooses a secure password and screen name.</p> <p>Protects their password and other personal information.</p> <p>Able to explain why it is important to protect themselves and their friends, the best ways in which to do this, including reporting concerns to a trusted adult.</p> <p>Understand that anything posted online can be seen, may be used by others and may affect others.</p> <p>Able to talk about the dangers of spending too long online or playing a game.</p> <p>Able to explain the importance of communicating kindly and respectfully.</p> <p>Able to discuss the importance of choosing an age-appropriate website, app or game.</p> <p>Able to explain why it is important to protect their computer or device from harm.</p>	<p>Routinely protects their password and other personal information.</p> <p>Able to explain the possible consequences of sharing too much personal information online.</p> <p>Able to support friends in protecting themselves and in making good choices online, including reporting concerns to a trusted adult.</p> <p>Able to explain the consequences of spending too much time online or on a game.</p> <p>Able to explain the consequences to themselves or others of not communicating kindly and respectfully online.</p> <p>Routinely protects their computer or device from harm on the Internet.</p>
Programming	<p>Able to make choices about the buttons and icons to press, touch or click on.</p>	<p>Demonstrate the ability to use simple software to make something happen.</p>	<p>Able to give instructions to a friend and follow their instructions to move around.</p>	<p>Able to give instructions to a friend (using forward and backward and turn) and physically follow their instructions.</p>	<p>Able to break an open-ended problem up into smaller parts.</p> <p>Able to put programming</p>	<p>Demonstrates the ability to use logical thinking to solve an open-ended problem by breaking it into smaller parts.</p>	<p>Able to break a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</p>	<p>Able to break a problem into smaller steps, recognising similarities to solutions used before.</p>



		<p>Able to make a floor robot move</p>	<p>Able to describe what happens when buttons are pressed on a robot.</p> <p>Able to press the buttons in the correct order to make the robot follow an instruction.</p> <p>Able to describe what actions are needed to make something happen and begin to use the word algorithm.</p> <p>Begin to use software/apps to create movement and patterns on a screen.</p> <p>Able to use the word debug when correcting mistakes during programming.</p>	<p>Able to describe the order things need to be put in to make something happen and explain that this is an algorithm.</p> <p>Able to program a robot or software to do a particular task.</p> <p>Able to look at a friends program and tell you what will happen.</p> <p>Use programming software to make objects move.</p> <p>Able to watch a program execute and spot where it goes wrong so that it can be debugged.</p>	<p>commands into a sequence to achieve a specific outcome.</p> <p>Able to test their program and recognise when they need to debug it.</p> <p>Able to use repeat commands.</p> <p>Able to describe the algorithm they need to use to complete a simple task.</p> <p>Able to detect a problem in an algorithm which could result in unsuccessful programming.</p>	<p>Able to use an efficient procedure to simplify a program.</p> <p>Able to use a sensor to detect a change which can select and action in their program.</p> <p>Understand the need to keep testing their program while putting it together.</p> <p>Use a variety of tools to create a program.</p> <p>Able to recognise and error in a program and debug it.</p> <p>Recognises that an algorithm will help when sequencing more complex programs.</p> <p>Recognise that algorithms will also help to solve problems in other learning such as Maths, Science and DT.</p>	<p>Able to refine a procedure using repeat commands to improve a program.</p> <p>Able to use a variable to increase programming possibilities.</p> <p>Able to change an input to a program to achieve a different output.</p> <p>Able to use 'if' and 'then' commands to select an action.</p> <p>Able to talk about how a computer model can provide information about a physical system.</p> <p>Uses logical reasoning to detect and debug mistakes in a program.</p> <p>Uses logical reasoning to detect and debug mistakes in a program.</p> <p>Uses logical thinking, imagination and creativity to extend a program..</p>	<p>Able to explain and program each of the steps in their algorithm.</p> <p>Able to evaluate the effectiveness and efficiency of their algorithm while continually testing the programming of that algorithm.</p> <p>Able to recognise when it is necessary to use a variable to achieve a required output.</p> <p>Able to use a variable and operators to stop a program.</p> <p>Able to use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</p> <p>Able to use logical reasoning to detect and correct errors in algorithms and programs.</p>
Handling data		<p>Able to talk about different kinds of information such as pictures, video, text and sound.</p>	<p>Able to discuss the different ways in which information can be shown.</p> <p>Able to use technology to collect information. Such as, photos, video and sound.</p> <p>Able to sort different kinds of information and present it to others.</p> <p>Able to add information to a pictograph and talk about what they have found out.</p>	<p>Able to talk about the different ways to use technology to collect information, including a camera, microscope or sound recorder.</p> <p>Able to make and save a chart or graph using the data collected.</p> <p>Beginning to understand a branching database.</p> <p>Explain what kind of information could be used to investigate a question.</p>	<p>Able to talk about the different ways data can be organised.</p> <p>Able to search a ready-made database to answer questions.</p> <p>Able to collect data to help them answer questions.</p> <p>Able to add to a database.</p> <p>Able to make a branching database.</p> <p>Able to use a data logger to monitor</p>	<p>Able to organise data in different ways.</p> <p>Able to collect data and identify where it could be inaccurate.</p> <p>Able to plan, create and search a database to answer questions.</p> <p>Able to choose the best way to present data.</p> <p>Able to use a data logger to record and share their readings.</p>	<p>Able to use a spreadsheet and database to collect and record data.</p> <p>Able to choose an appropriate tool to help them collect data.</p> <p>Able to present data in an appropriate way.</p> <p>Able to search a database using different operators to refine the search.</p> <p>Able to talk about mistakes in data and</p>	<p>Able to plan the process needed to gather required data.</p> <p>Able to select the most effective tool to collect data.</p> <p>Able to check data collected for accuracy and plausibility.</p> <p>Able to interpret data collected.</p> <p>Able to present data collected in an appropriate way.</p>



					changes and talk about the information collected.		suggest how it could be checked.	Able to use skills developed to effectively interrogate a database.
Multimedia	Able to move objects on a screen.	Able to create shapes and text on a screen Able to use technology to show their learning.	Demonstrate creativity with different technology tools. Able to use a keyboard or a wordbank on a device to enter text. Demonstrate the ability to save information in a special place and retrieve it again.	Demonstrate using technology to organise and present ideas in different ways. Able to use a keyboard on a device and add, delete and space text for others to read. Describe an online tool that will help to share ideas with others. Able to save and open files on the device being used.	Able to create different effects with different technology tools. Able to combine a mixture of text, graphics and sound to share their ideas and learning. Able to use appropriate keyboard commands to amend text on their device, including making use of a spellchecker. Able to evaluate their work and improve its effectiveness. Able to use an appropriate tool to share work online.	Able to use photos, video and sound to create an atmosphere when presenting to different audiences. Confidently explores new media to extend what they can achieve. Able to change the appearance of text to increase its effectiveness. Able to create, modify and present documents for a particular purpose. Can use a keyboard confidently and make use of a spellchecker to write and review work. Able to use an appropriate tool to share work and to collaborate online. Able to give constructive feedback to peers to help them to improve their work and refine their own work.	Able to use text, photo, sound and video editing tools to refine work. Able to use skills already developed to create content using unfamiliar technology. Able to select, use and combine the appropriate technology tools to create effects that will have an impact on others. Able to select and appropriate online or offline tool to create and share ideas. Able to review and improve their own work and support others to improve their work.	Able to talk about audience, atmosphere and structure when planning and outcome. Can confidently identify the potential of unfamiliar technology to increase creativity. Able to combine a range of media, recognising the contribution of each to achieve a particular outcome. Able to say why they have selected a particular online tool for a specific purpose. Are able to be digitally discerning when evaluating the effectiveness of their work and the work of others.
Technology in our lives	Demonstrate the ability to operate simple equipment.	Able to describe what technology is used at home and in school. Use a safe part of the internet to play and learn.	Recognise the ways that technology is used in the classroom. Recognise ways that technology is used both at home and in the community.	Able to explain why they use technology in the classroom. Able to explain why they use technology in their home and community.	Able to save and retrieve work on the internet, the school network or their own device. Able to talk about the parts of a computer.	Able to say whether a resource they are using is on the internet, on the school network or on their own device. Able to identify key words to use when searching safely on the World Wide Web.	Able to describe different parts of the Internet. Able to use different online communication tools for different purposes.	Able to talk about the Internet services they need to use for different purposes. Able to describe how information is transported on the Internet.



Our Lady and St Patrick's RC Nursery and Primary School

Curriculum Intent: