# ICT Curriculum Overview — St Mary's Catholic Primary School

| Year | Unit and Aim | Target Skills (I can…) | Key Vocabulary | NC 2014 | Assessment | Suggested Resources |
|---|---|---|---|---|---|---|
| | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| **Year 1** | ***We are celebrating***<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to create a digital greetings card<br><br>Why are we learning it?<br><br>To enable pupils to use digital tools and technology to combine text and graphics. | • research<br>• word<br>• processing<br>• graphics | • text<br>• graphics<br>• combine<br>• digital<br>• image<br>• font<br>• mouse<br>• select<br>• copy<br>• paste<br>• highlight<br>• safety<br>• Internet<br>• save<br>• retrieve | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• recognise common uses of information technology beyond school<br>• use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies | • Have pupils developed basic keyboard skills, through inputting and formatting text?<br>• Have pupils developed basic mouse skills?<br>• Can pupils use the Internet to find and select images?<br>• Have pupils developed skills in opening and saving files?<br>• Have pupils improved their vocabulary and sentence work by using a word bank? (see key vocab list)<br>• Have pupils developed skills in combining text and images?<br>• Are pupils able to discuss their work and think about whether it could be improved? | Word processing / Presentation software such as:<br>• Microsoft PowerPoint<br>• Microsoft Word<br>• Clicker 6 |
| **Year 1** | ***We are treasure Hunters***<br><br>Children are learning to programme, control and use technology to move around maps<br><br>Why are we learning it?<br><br>To enable pupils to use digital tools and technology and be introduced to coding | • control<br>• following instructions | • beebot<br>• directions<br>• instructions<br>• directional language | • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions<br>• create and debug simple programs<br>• use logical reasoning to predict the behaviour of simple programs<br>• recognise common uses of information technology beyond school | Can they use a map?<br><br>Can they follow instructions?<br><br>Can they programme a toy?<br><br>Can they try and use fewer moves to find treasure and discuss their improvements? | Programmable toys such as:<br>• Bee-Bot,<br>• Constructa-Bot<br>• Roamer |
| **Year** | ***We are storytellers*** | Retelling stories | Record | • use technology purposefully to create, | | Talking tins,MP3 |

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| **1** | Children are learning to record and play back their own stories.<br>Why are we learning it?<br><br>To enable pupils to use digital tools and technology to record information | Digital Recording<br>Sound recording | Play<br>Select | organise, store, manipulate and retrieve digital content | Can they make different sounds?<br><br>Can they record sound effects?<br><br>Can they record themselves reading part of a story?<br><br>Can they help make a talking book? | recorders, I Pad apps |
| **Year 1** | ***<u>We are collectors</u>***<br>Children are learning how to collect and graph information<br><br>Why are we learning it?<br><br>To enable pupils to use digital tools and technology to present information | Data handling<br>Charts<br>graph | Graph<br>Axis<br>Select | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• use logical reasoning to predict the behaviour of simple programs<br>• | Can they answer questions about staying active?<br><br>Can they help create a class pictogram?<br><br>Can they create their own pictogram?<br><br>Can they use a pictogram to show how active they are. | Create a graph, 2simple 2count |
| **Year 1** | **<u>We are TV chefs</u>**<br>Children are learning to understand and use a range of technology and techniques to create a | Computational thinking | Record<br>play | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• use logical reasoning to predict the | Can they watch a TV clip to find out information? | Video camera , tripods , ingredients and cooking, implement s |

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| | digital video recording<br><br>Why are we learning it?<br><br>To enable pupils to use digital tools and technology to present information as well as thinking about the order of instructions to make something- links to early programming and logical thinking. | | | behaviour of simple programs | Can they use a video camera?<br><br>Can they help to make a TV clip?<br><br>Can they talk about the class TV clips?<br>Can they talk about the steps? | |
| **Year 1** | **<u>We are painters</u>**<br>Children are learning to illustrate an eBook.<br><br>Why are we learning it?<br><br>To enable pupils to continue to develop their familiarity with a computer and keyboards and to develop their creative side whilst using a variety of programmes | Creativity- creating books sharing of information | icons, menus, hyperlinks | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• | Can they find out about eBooks?<br><br>Can they use a tools to write and create their own?<br><br>Can they find out what makes a eBook?<br><br>Can they talk about creating their eBook? | Internet browser, I pad apps. |
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| **Year2** | **We are detectives**<br>Children are learning how to communicate clues by multimedia<br><br>Why are we learning it?<br><br>To enable pupils to continue to develop their familiarity with multimedia technology | Email , blog, text | • Send<br>• Receive<br>• Font<br>• Underline<br>• text<br>• graphics<br>• combine<br>• digital<br>• image<br>• font<br>• mouse<br>• select<br>• copy<br>• paste<br>• highlight<br>• safety<br>• Internet<br>• save<br>• retrieve | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• recognise common uses of information technology beyond school<br>• use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies | Can they draft and send an email?<br><br>Can they reply to an email?<br><br>Can they use a 'witness statement' to find out facts?<br><br>Can they use a sound file to find out facts? | • Talking tins / postcards, mP3 recorders |

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| **Year2** | **We are Games Testers**<br>Children will explore how computer games work<br><br>Why are we learning it?<br><br>To enable children to learn how to test and write basic code | • Coding<br>• Programming blocks | • Code<br>• Programme<br>• Blocks<br>• | • use technology purposefully to create, organise, store, manipulate and retrieve digital content | Can they look at fairy tale pictures on the Internet?<br><br>Can they paint a picture on screen?<br><br>Can they add a picture to an eBook?<br><br>Can they talk about the picture I painted? | Programmable toys such as:<br>• Bee-Bot,<br>• Constructa-Bot<br>• Roamer<br><br>Webbased coding such as Scratch |
| **Year2** | **We are photographers**<br><br>Children will learn how to take photos and edit them to create a newsletter/book about a topic.<br><br>Why are we learning it?<br><br>To enable pupils to continue to development of word processing and design using various technologies. | Research, word processing, photography | Font<br>Image<br>Size<br>Underline | • use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• recognise common uses of information technology beyond school<br>• use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies | Can they help to plan a class newsletter?<br><br>Can they write an article on screen?<br><br>Can they add a photo and caption to my article?<br><br>Can they help to make a newsletter? | microsoft Word / microsoft PowerPoint® / Purple mash 2Publish+ |
| **Year2** | **We are researchers**<br><br>**Children will learn** | Research, story boarding, animation, | texture<br>graphics<br>undo | • understand what algorithms are; how they are implemented as programs on digital devices; and that programs | Can they research an event from the past? | monkeyJam / Pencil / Anithings / 2Simple |

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| | **how to**<br>Animate a time in history using various media<br><br>Why are we learning it?<br><br>To enable pupils to continue to develop their coding and programming skills through to use of an animation and storyboard tool. | | background<br>straight line tool<br>free shape tool | execute by following precise and unambiguous instructions<br>• create and debug simple programs<br>• use logical reasoning to predict the behaviour of simple programs | Can they write a storyboard?<br><br>Can they film an animation?<br><br>Can they record sound for my animation? | 2Animate / Can theyAnimate / iStopmotion (for macs) / Windows Live$^{Tm}$ movie maker (for Windows Vista and Windows 7) / Windows movie maker (for Windows XP)<br>Web cameras |
| **Year2** | **<u>We are astronauts</u>**<br>Children will learn how to Programme on screen using various applications<br><br>Why are we learning it?<br><br>To enable pupils to continue to develop their coding and programming skills<br><br>. | Coding , programming | Coding intstructions | • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions<br>• create and debug simple programs<br>• use logical reasoning to predict the behaviour of simple programs | Can they understand how Scratch works?<br><br>Can they move a sprite on screen?<br><br>Can they programme a toy?<br><br>Can they move a sprite in the same way as the toy? | Digital Cameras<br>microsoft PowerPoint®, microsoft Excel® / 2Simple 2Count / Rm Starting Graph |
| **Year2** | **<u>We are zoologists</u>**<br>Children will learn how to collect data like Bug hunt data | Data collecting, data handling, charts and graphs | | • use technology purposefully to create, organise, store, manipulate and retrieve digital content | Can they use an identification key?<br><br>Can they record what I find on a bug hunt? | microsoft PowerPoint®, microsoft Excel® / 2Simple 2Count / Rm |

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| | Why are we learning it?<br><br>To enable pupils to continue to present and collect their information using various multimedia | | | | Can they use my data to create a graph?<br><br>Can they talk about and use my graph? | Starting Graph |

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| *3* | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| 3 | **We are programmers**<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to programmer an animated character<br>Why are we learning it?<br><br>To enable pupils to familiarize themselves with coding and programming technoloigies | Coding , programming | • | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | Have they created an algorithm for an animated scene in the form of a story board?<br>Can they write a programmer in scratch to create the animation?<br>Can they think critically about their programming? | Programmable toys such as:<br>• Bee-Bot,<br>• Constructa-Bot<br>• Roamer<br>• Webbased coding such as Scratch |

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| 3 | **We are bug fixers**<br>Creating a comic strip<br><br>What are we learning?<br>Children are learning to understand and use a range of technology and techniques to programmer an animated character<br><br>Why are we learning it?<br><br>To enable pupils familiarize themselves with fixing programmes when something doesn't work- bug fixing. | Coding ,<br>• programming | • coding<br>• programming<br>• bug fixing | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | Do they understand how coding can be foxed one step at a time to deliver the desired content<br>? | Programmable toys such as:<br>• Bee-Bot,<br>• Constructa-Bot<br>• Roamer<br>• Webbased coding such as Scratch |
| 3 | **We are animators**<br>Creating a cartoon<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to create a cartoon<br><br>Why are we learning?<br>To develop skills in | Programming, graphics | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to | Can they create an algorithm for an animated scene in a storyboard?<br>Write a program in scratch<br>Correct mistake in my animation programme.? | Microphones<br>iPads<br>stop motion cartoons |

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| | programming and graphic s | | | detect and correct errors in algorithms and programs | | |
| 3 | **We are opinion pollsters** Opinion polling<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to research opinions<br><br>Why are we learning? To develop skills in research and data anylsis | Research, survey creation, data analysis, charts | | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | Do they understand good elements of a good survey design? Can they collect data safely and effectively? Can they analyse, present and interpret results? | Surveymonkey™ / Google Docs Form, Google Docs Spreadsheet / InspireData®, microsoft® Word |
| 3 | **We are communicators**<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to communicate effectively<br><br>Why are we learning? | Text, email, forums, chat, video conference | | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital | Can they show a basic understanding of how email workds? Can they show an understanding of e safety? Can they show understanding of different digital communication ? Can they show communication skills | Email system (your school's own system / Gmail or another system), video conferencing software (Gmail video-chat / JVCS or other) Webcams |

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| | To enable pupils to continue to access different avenues of social media and communication | | | content | with a particular audience? | |
| **3** | **We are presenters**<br>Videoing performance<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to perform a video presentation<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in video recording and editing | Video recording and editing, | | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | Can they show skills in shooting live video and framing shots and holding the camera still?<br>Can they show skills in editing video ,including editing clips and including narration points?<br>Can they show a critical understanding of the qualities of effective video and comment on them? | Windows Live™ movie maker / Windows™ movie maker / imovie / Adobe Premiere Elements<br>Digital video cameras |

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| ***4*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| **4** | **We are co-authors**<br>Producing a wiki<br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to produce a wiki<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in combining text and graphics and editing | Text creation, collaborative editing, research | • Edit, amend/Highlight<br>• Font/size,style,/ colour<br>• Bold, Italic, underline<br>• Cut, Copy, Paste<br>• Headings/Sub-headingsBackspace, delete<br>• Find and replace/Insert<br>• Spell-check, Proofread<br>• Textbox/Word Art<br>• Justify,<br>• align, left, right, centre<br>• Expressive language<br>• Move, Sequence, Re-order Graphics/ Colour<br>• Style /Columns | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | Do they understand how digital technology can be used to create a wiki ?<br>Can they show skills in working with image and text<br>And combining the two.<br><br>Have they worked collaboratively?<br><br>Have they reflected critically on their and others work? | • mediaWiki / PBworks / Google Sites |

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| 4 | **We are meteorologists**<br>Presenting the weather<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to perform the weather<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in data logging and analysis | • Data logging, data analysis, presentation, video recording | • | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information | Can they develop further research and presentation skills?<br><br>Can they check the plausibility of the information?<br><br>Can they use other media appropriately and effectively to collect, analyse and present their information? | microsoft Excel® / Google Docs Spreadsheet / Internet browser, microsoft<br>• PowerPoint® / IWB software |
| 4 | **We are musicians**<br>Producing digital music<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to produce | Audio recording, music composition, sequencing | | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and | Can they show competent recording and editing skills when producing their music?<br><br>Can they use a variety of media to create a finished product? | JamStudio / Garage Band / FL Studio / LmmS, Audacity®, museScore Microphone,headphones, instruments |

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| | digital music<br><br>Why are we learning? To enable pupils to develop skills in digital recording and editing | | | presenting data and information | Can they talk critically about their finished product? | |
| 4 | **We are Software Developers**<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to develop a simple educational game<br><br>Why are we learning? To enable pupils to continue to develop skills using programming language (coding) | Survey creation, databases, presentation | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>• | Can they develop further research and presentation skills?<br><br>Can they check the plausibility of the information?<br><br>Can they use other media appropriately and effectively to collect, analyse and present their information? | microsoft Excel® / Google Docs Spreadsheet, Surveymonkey™ / Google Docs Form, word processor |
| 4 | **We are toy designers**<br><br>What are we learning? children are learning to prototyping an interactive toy | Vector graphics, programming | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and | Can they develop further coding and algorithms skills?<br><br>Can they write a programme using | Scratch, InkScape / Adobe Illustrator / CorelDRAW |

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| | Why are we learning? To enable pupils to continue to develop skills in programming and graphics | | | repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | scratch ?<br><br>Can they develop understanding and critical thinking by using testing? | |
| 4 | **We are HTML editors**<br><br>What are we learning?<br><br>Children are learning to Edit and write HTML<br><br>Why are we learning? To enable pupils to understanding how computer networks work. | Research, digital photography, video recording, video editing | | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• | Can they use HTML code to write a website and code something to happen?<br><br>Can they explain what HTML is used for? | Internet Explorer/Chrome/ Firefox. |

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| ***5*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| **5** | **We are web developers**: Creating a web page about cyber safety<br><br>What are we learning?<br><br>Children are learning write their own webpage<br><br>Why are we learning? To enable pupils to develops skills about writing webpages as well as the knowledge about Cyber Safety. | HTML coding<br>Creating a web page about cyber safety | • HTML<br>• Coding<br>• programming<br>• | • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information | Can they collate and edit a digital library?<br>Can they think about the layout of a webpage to make it attractive to viewers?<br>Can they add the necessary information without overloading their reader? | • Word Press<br>• Google Chrome |

| Year | Unit and Aim | Target Skills (I can…) | Key Vocabulary | NC 2014 | Assessment | Suggested Resources |
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| *5* | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| 5 | **We are architects**<br>Creating a virtual space<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to perform 3d modeling<br><br>Why are we learning?<br>To enable pupils to develop skills in 3d modeling and image management | • 3-D modelling, research, image management<br>• Programming ,coding | • | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | Can they create an algorithm for an animated scene in a storyboard/virtual environment?<br><br>Can they write a program in scratch to create this?<br><br>Can they correct any mistakes in my animation programme.? | • Google SketchUp<br>• Digital cameras |
| 5 | **We are bloggers**<br>Media reviews<br><br>What are we learning?<br><br>Children are learning to | Text and other media, writing for an audience | | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that | Can they show a strong understanding of how email works?<br><br>Can they show an | WordPress, Blogger, learning platform blogging tool (also, GImP, Audacity®, Windows |

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| ***5*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| | understand and use a range of technology and techniques to perform a media review<br><br>Why are we learning? To enable pupils to continue to develop skills media presentation | | | accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact<br>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration | understanding of e safety when communicating?<br><br>Can they show understanding of different digital communication?<br><br>Can they show communication skills with a particular audience and talk critically about their work? | moviemaker, Windows Live™ movie maker) Digital video |
| **5** | | | | • | | |
| **5** | **We are Cryptographers**<br><br>What are we learning?<br><br>Children are learning to understand how codes are used to communicate and how to crack these codes<br><br>Why are we learning? To enable pupils to continue to develop | Programming, coding, graphics | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain | Can they crack a code? Can they identify code?<br><br>Can<br>? | A variety of different codes- eg. Morse code, hieroglyphics |

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| *5* | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| | their coding skills for programming | | | how some simple algorithms work and to detect and correct errors in algorithms and programs | | |
| 5 | **We are Game Developers**<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to produce a coding game<br><br>Why are we learning? To enable pupils to continue to develop skills in coding and prgramming | Programming, coding, graphics | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>• | Can they develop further coding and algorithms skills?<br><br>Can they write a complex programme using scratch?<br><br>Can they develop understanding using testing? | Scratch<br>Excel<br>Real / virtual games, microphones, sensor boards, speakers |
| 6 | **<u>We are artists</u>**<br>What are we learning?<br><br>Children are learning to fuse geometry and art in this topic | Creativity | | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, | Can they confidently use a range of multimedia presentation? | |

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| ***5*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| | Why are we learning?<br>To enable pupils to develop a variety of tools to present information | | | systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• | | |

# ICT Curriculum Overview — St Mary's Catholic Primary School

| Year | Unit and Aim | Target Skills (I can…) | Key Vocabulary | NC 2014 | Assessment | Suggested Resources |
|---|---|---|---|---|---|---|
| ***6*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| **6** | **We are computational thinkers**<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to create patterns and explore simulations<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in computational thinking | instructions<br>order<br>simulations<br>programming<br>debugging<br>Sim Ciyu | • databases<br>• and/or search bookmark audience<br>• internet<br>• index URL<br>• key words<br>• copy right search engine<br>• bias<br>• string<br>• hyperlink | • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information | Can they develop further programming and debugging skills<br>Can they develop their understanding of what makes a simulation successful?<br>Can they develop collaboration skills? | Digital cameras, video cameras, audio recorder or microphone, GPS device (useful but not essential)<br>Google Earth<br>Sim City |

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| *6* | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| 6 | **We are game developers**<br>Creating an adventure game<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to produce an adventure game<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in programming and coding to produce a game/app | Programming, graphics,coding text based coding (new to 2018) | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | Can they develop coding and algorithms skills ?<br>Can they write a programme using scratch?<br>Can they develop understanding using testing? | Digital cameras, video cameras, audio recorder or microphone Powerpoint,Scratch Python |
| 6 | **We are travel writers**<br>Cyber safety research / Media<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to perform a | Research, collaboration, web design,coding, programming video presentation, blogging/vlogging | | • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>• use logical reasoning to explain how | Can they develop further research and presentation skills ?<br><br>Can they check the plausibility of the information?<br>Can they use other media appropriately and effectively | Google Sites / PBworks / mediaWiki<br>Digital cameras, video cameras, audio recorder or microphone |

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| | media presentation<br><br>Why are we learning? To enable pupils to develop skills in web design | | | some simple algorithms work and to detect and correct errors in algorithms and programs<br>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration<br>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | | |
| 6 | **We are advertisers**<br>Creating an advert- Year 6 Play<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to create an advert | Research, video recording, video editing, others | | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• use technology safely, respectfully and responsibly; recognise | Do they understand how digital technology can be used in advertisements and graphics?<br><br>Can they show skills in working with image and text<br>And combining the two. To create an attractive advertisement? | Windows movie maker (XP), Windows Live™ movie maker (for Vista and Windows 7), microsoft PowerPoint®, microsoft Word®, Comic Life |

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| | Why are we learning?<br>To enable pupils to continue to develop skills in video recording and editing and research | | | acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | Have they worked collaboratively?<br><br>Have they reflected critically on their and others work? | |
| 6 | **We are publishers**<br>Creating a yearbook<br><br>What are we learning?<br><br>Children are learning to understand and use a range of technology and techniques to create a digital yearbook<br><br>Why are we learning?<br>To enable pupils to continue to develop skills in image and video editing and photography | Photography, image editing, graphics, text, DTP | | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact<br>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for | Have pupils further developed the word processing skills?<br><br>Can they show appropriate page design skills?<br>Can they develop their reviewing and document design?<br>Have they developed their capacity to work collaboratively? | microsoft Publisher™ / Adobe InDesign / Scribus, microsoft Word® / Google Docs Documents, Picasa™ / GImP, Adobe Acrobat Digital cameras and/or scanners, audio recorder or microphone |

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| ***6*** | *What are we learning? Why are we learning it?* | *What specific skills need to be taught and practised?* | *What specific language must children know in order to be able to be successful?* | *Which area/s of the NC 2014 will be the focus?* | *What specific skills or outcomes will be assessed as part of this unit? How?* | *What do we need to have in place in order for children to be able to be successful?* |
| | | | | communication and collaboration | | |
| **6** | We are data loggers (link to Science)<br>What are we learning?<br><br>Children are learning to understand and use a range pre-programming features of data logging software and devices to set up a specific data capture, perhaps overnight.<br><br>Why?<br>Understand and predict patterns in graphical data.<br>□ Explain when data capture will be useful and design experiments involving data loggers.<br>□ Explain the strengths and weakness of data logging and understand how to spot spurious results and moderate them. | | Confidently use a range of external sensors (heart rate monitors, alternative energy, light gates etc) in a variety of situations in the course of scientific investigations.<br>□ Use a data logger as a timing device with light gates<br>□ Use graphical information to answer questions and solve simple problems | • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report<br>• | Can the children Pre-programme at least one appropriate sensor to carry out an investigation?<br>Can they Connect the equipment, set the period and interval of logging and obtain some results? Can they Question inaccurate results and explain why they might have arisen?<br>Can they save their results and carry out some analysis to summarize findings?<br>Can they describe advantages, disadvantages and limitations of using data logging equipment? | data logger<br>▪ data logging software |