St Gregory's Catholic Academy – Computing Progression

Early Years Foundation Stage	
Nursery	**Reception**

	Nursery	Reception
Computer Science	• Make a Bee-bot or similar move. • With support programme a Bee-bot (or similar) to make it move for a particular purpose. • Explore and use simple repetition in music and dance • Say what will happens (or predict) when pressing /swiping on a game using the iPad /whiteboard	• Use a range of control toys and devices • Understand that goals can be achieved by following a sequence of steps. • Follow symbol sequence algorithms (PE Cards, jump, step etc) • Programme a Bee-bot or similar, one instruction at a time and clear it at the end. • Recognise that there is a problem and say what the problem is (plugged or unplugged activities). • Make predictions about what a programme will do /do next.
Information Technology	• Use technology appropriately through role-play. • Recognise some technology that is used at home or school. • Name and use an iPad with developing control.	• Select and use technology for a particular purpose. • Name a keyboard and mouse and use with developing control. • Use digital devices to create and store content e.g. taking a photo, videoing, artwork.
Digital Literacy	• Recognise some technology that is used in places such as home and school. • Use technology appropriately through role play. • Speak to an adult about what I have seen. • Say if something found on the internet makes them feel bad.	• Know that they need to stay safe when using technology. • Know that some information should be kept private. • Know what to do if they see things that upset them online at school.

Key Stage 1	
Year 1	**Year 2**

	Year 1	Year 2
Computer Science	• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs.	• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs.
Information Technology	• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Digital Literacy	• Recognise common uses of information technology beyond school. • 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.	• Recognise common uses of information technology beyond school. • 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

Lower Key Stage 2		
	Year 3	**Year 4**
Computer Science	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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.	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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 •
Information Technology	• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • 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 a	• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • 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.
Digital Literacy	• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.

	Upper Key Stage 2	
	Year 5	Year 6
Computer Science	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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.	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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.
Information Technology	• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • 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.	• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • 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.
Digital Literacy	• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.