St. Augustine's Catholic Primary School

We try to follow Jesus by loving each other and caring for God's world.

Coverage of Computing Themes ~ Cycle A and Cycle B

Continuous Learning: **Safety & Security ~** Learn safety rules for technological devices, programs and applications.
Effective use of tools ~ Use software tools to support computing work
Impact of technology ~ Understand how individuals, systems, and society as a whole interact with computer systems

Phase	Cycle	Computing Systems and Networks	Programming	Data and Information	Creating Media
Nursery	**n/a**	**Technology Around Us** Talk about different kinds of technology in their lives. Talk about and use 'make believe' technology in play.	**Programming** Use a Beebot and other programmable toys and apps. Choose instructions to control their movements and actions.	**Sorting** Sort objects into groups. Arrange objects in height order. Put objects in the correct order (sequence).	**Creating Media** Use technology to draw and record media using pictures and sounds.
Rec	**n/a**	**Technology Around Us** Talk about different kinds of information such as pictures and words. Control and move objects on a screen. Use and operate simple technological devices in everyday life. Talk about and use 'make believe' technology in play.	**Programming** Use a Bee-Bot and make it move. Choose which buttons to press to give instructions to a Beebot. Choose buttons to control other programmable toys. Choose instructions to control applications to play games. Drag and drop objects using a mouse or touch screen. Follow, create and debug an algorithm.	**Sorting** Sort objects into groups. Arrange objects in height order. Put objects in the correct order (sequence). **Patterns** Make simple patterns. Spot repeating patterns. Identify the next object in a pattern.	**Pictures and Sounds** Use technology to draw and record media using pictures and sounds. Change and 'tinker' with a picture or sound effect.
KS1	**A**	**Technology around us** Recognising technology in school and using it responsibly.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.	**Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.
	B	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Digital photography** Capturing and changing digital photographs for different purposes.

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Phase	Cycle	Computing Systems and Networks	Programming	Data and Information	Creating Media
LKS2	A	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. **Safety and security** Understand risks when using technology, and how to protect individuals and systems	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.
	B	**The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. **Safety and security** Understand risks when using technology, and how to protect individuals and systems	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Audio editing** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.
UKS2	A	**Sharing information** Identifying and exploring how information is shared between digital systems. **Safety and security** Understand risks when using technology, and how to protect individuals and systems	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Vector drawing** Creating images in a drawing program by using layers and groups of objects.
	B	**Internet communication** Recognising how the WWW can be used to communicate and be searched to find information. **Safety and security** Understand risks when using technology, and how to protect individuals and systems	**Variables in games** Exploring variables when designing and coding a game.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.