

Mundy CofE Junior School-Computing progression plan

E-Safety

Year 3 and Year 4	Year 5 and Year 6
Agree sensible e-safety rules for the classroom	Agree sensible e-safety rules for the classroom
Choose a secure password for age-appropriate websites	Discuss their own personal use of the Internet and choices they make Discuss how to protect devices from virus threats
Discuss what actions could be taken if they are uncomfortable or upset online e.g. Report Abuse button	Explore using the safe and responsible use of online communication tools e.g. blogs, messaging
Talk about what games they enjoying playing and what good choices are when playing games e.g. content, screen time	
Comment and provide positive feedback on the work of classmates in school or online, or the work of others online	

Programming

Year 3	Year 4	Year 5	Year 6
Test & improve / debug programmed sequences.	Use sensors to 'trigger' an action such as turning	Talk about procedures as parts of a program	Predict the outputs for the steps in an algorithm
Begin to type commands to achieve outcomes.	Solve open-ended problems with software using efficient procedures to create shapes & letters	Refine procedures to improve efficiency	Increase confidence in the process to plan, program, test & review a program
Explore outcomes when giving sequences of instructions in scratch software	Experience a variety of resources to extend knowledge & understanding of programming.	Use a variable to replace number of sides in a regular shape	Write a program which follows an algorithm to solve a problem for a sprite or other model
Use repeat to achieve solutions to tasks	Create an algorithm & a program that will use a simple selection command for a game	Explore instructions to control software or hardware with an input & using if... then... commands	Write a program which follows an algorithm to achieve a planned outcome for appropriate programming software

Solve open-ended problems using coding	Begin to correct errors (debug) as they program devices & actions on screen	Explore a computer model to control a physical system	Control on screen mimics & physical devices using one or more input & predict the outputs
Create an algorithm to tell a joke or a simple story	Use an algorithm to sequence more complex programming into order	Change inputs on a model to achieve different outputs	Understand how sensors can be used to measure input in order to activate a procedure
Sequence pre-written lines of programming into order	Link the use of algorithms to solve problems to work in Maths, Science & DT.	Refine & extend a program	Create variables to provide a score/trigger an action in a game
Talk about algorithms planned by others & identify any problems & the expected outcome		Identify difficulties & articulate a solution for errors in a program	Link errors in a program to problems in the original algorithm
		Group commands as a procedure to achieve a specific outcome within a program	

Digital Literacy

Year 3	Year 4	Year 5	Year 6
Save work on the school network, on the Internet and on individual devices	Talk about the school network & the different resources they can access, including the Internet	Identify different parts of computing devices.	Describe different services provided by the Internet & how information moves around the Internet
Talk about the parts of a computer	Frame questions & identify key words to search for information on the Internet	Identify different parts of the Internet	Describe different parts of a computing device & how it connects to the Internet. Connect a computing device to a keyboard, mouse or printer
Use appropriate tools to collaborate on-line	Consider reliability of information & ways it may influence you	Choose appropriate tools for communication and collaboration and use them responsibly	Identify appropriate forms of online communication for different audiences.
Use appropriate tools to communicate on-line	Check who the owner is before copying photos, clipart or text	Use effective strategies to search with appropriate search engines	Use search engines as part of an effective research strategy

Use simple search tools and find appropriate websites		Talk about the different elements on web pages	Describe how search results are selected & ranked
Talk about the owner of information online		Find out who the information presented on a webpage belongs to.	Acknowledge who resources belong to that they have found on the internet