

Meadow Park: Curriculum Map 2023-2024



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Key Stage	Year Group	Subject	Teacher	Programme of Study		
KS2	3/4/5/6	Computing	Mr. Dunn	National Curriculum		
Autumn a		Autumn b	Spring a	Spring b	Summer a	Summer b
Topic(s)		Topic(s)	Topic(s)	Topic(s)	Topic(s)	Topic(s)
Year 3						
<u>E-Safety</u> 1. <u>Computing systems and networks – Connecting computers</u>		<u>2. Creating media - Stop-frame animation</u>	<u>3. Programming A - Sequencing sounds</u>	<u>4. Data and information – Branching databases</u>	<u>5. Creating media – Desktop publishing</u>	<u>6. Programming B - Events and actions in programs</u>
Develop an understanding of digital devices, with an initial focus on inputs, processes, and outputs.		Use a range of techniques to create a stop-frame animation using tablets.	Explore the concept of sequencing in programming through Scratch.	Develop an understanding of what a branching database is and how to create one. Use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects.	Explain the difference between text and images. Recognise that text and images can communicate messages clearly. Identify the advantages and disadvantages of using text and images.	Explore the links between events and actions. Moving a sprite in four directions (up, down, left, and right). Explore movement within the context of a maze, using design to choose an appropriately sized sprite.
Compare digital and non-digital devices. Next, learners will be introduced to computer networks, including devices that make up a network's infrastructure, such as wireless access points and switches.		Create a story-based animation with other types of media to animation, such as music and text.	Explore a selection of motion, sound, and event blocks that they will use to create programs, featuring sequences.	Create physical and on-screen branching databases.	Change font style, size, and colours for a given purpose. Edit text. Explain that text can be changed to communicate more clearly.	Draw lines with sprites and change the size and colour of lines.
Year 4						
<u>E-Safety and Key Skills</u> 1. <u>Computing systems and networks – The Internet*</u>		<u>2. Creating media – Audio production*</u>	<u>3. Programming A – Repetition in shapes*</u>	<u>4. Data and information – Data logging*</u>	<u>5. Creating media – Photo editing*</u>	<u>6. Programming B Repetition in games*</u>
Apply knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure.		Identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Editing work, adding multiple tracks, and opening and saving the audio files.	Create programs by planning, modifying, and testing commands to create shapes and patterns.	Consider how and why data is collected over time. Consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment.	Develop an understanding of how digital images can be changed and edited, and how they can then be re-saved and reused.	Explore the concept of repetition in programming using the Scratch environment. Discover similarities between two environments.
Explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create.		Discuss the ownership of digital audio and the copyright implications of duplicating the work of others.	Use Logo, a text-based programming language.	Look at data points, data sets, and logging intervals. Using a computer to review and analyse data.	Consider the impact that editing images can have and evaluate the effectiveness of their choices.	Look at the difference between count-controlled and infinite loops and use their knowledge to modify existing animations and games using repetition.
Year 5						
<u>E-Safety and Key Skills</u> 1. <u>Computing systems and networks - Systems and searching</u>		<u>2. Creating media - Video production</u>	<u>3. Programming A – Selection in physical computing</u>	<u>4. Data and information – Flat-file databases</u>	<u>5. Creating media – Introduction to vector graphics</u>	<u>6. Programming B – Selection in quizzes</u>

Develop understanding of computer systems and how information is transferred between systems and devices. Consider small-scale systems as well as large-scale systems.	Create short videos by working in pairs or groups.	use physical computing to explore the concept of selection in programming through the use of the Crumble programming environment	Use tools within a database to order and answer questions about data. Create graphs and charts from data to help solve problems.	Start to create vector drawings. Use different drawing tools to help them create images. Recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object	Develop knowledge of 'selection' by revisiting how 'conditions' can be used in programming, and then learning how the 'if... then... else...' structure can be used to select different outcomes depending on whether a condition is 'true' or 'false'.
Discover how information is found on the World Wide Web, through learning how search engines work.	Exposed to topic-based language and develop the skills of capturing, editing, and manipulating video.	Learn how to connect and program it to control components (including output devices — LEDs and motors). Introduced to conditions as a means of controlling the flow of actions in a program	Use a real-life database to answer a question, and present work to others.	Layer objects and begin grouping and duplicating them to support the creation of more complex pieces of work	Represent this understanding in algorithms, and then by constructing programs in the Scratch programming environment.
<u>Year 6</u>					
E-Safety and Key Skills 1. Computing systems and networks - Communication and collaboration	2. Creating media – Web page creation	3. Programming A – Variables in games	4. Data and information - Introduction to Spreadsheets	5. Creating media – 3D Modelling	6. Programming B - Sensing movement
Explore how data is transferred over the internet. Look at how the internet facilitates online communication and collaboration.	Creating websites for a chosen purpose. Learners identify what makes a good web page and use this information to design and evaluate websites using Google Sites.	Find out what variables are and relate them to real-world examples of values that can be set and changed. Use variables to create a simulation of a scoreboard.	Organising data into columns and rows to create a data set. Understand the importance of formatting data to support calculations.	Create a 3D space, moving, resizing, and duplicating objects. Create hollow objects using placeholders and combine multiple objects to create a model of a desk tidy.	Build a program for a micro bit and test it within the programming environment.
Learn how to communicate responsibly by considering what should and should not be shared on the internet.	Recognise copyright and fair use of media, the aesthetics of the site, and navigation paths.	Use-Modify-Create model, learners experiment with variables in an existing project, and then modify them, before they create a project.	Introduced to formulas and will begin to understand how they can be used to produce calculated data.	Examine the benefits of grouping and ungrouping 3D objects, then go on to plan, develop, and evaluate a 3D model of a building	Transferring the program to a micro: bit. Try out three different new projects with each adding more depth.
Assessment Tasks	Assessment Tasks	Assessment Tasks	Assessment Tasks	Assessment Task	Assessment Tasks
Learners to create a range of documents to evidence key skills.	Present knowledge of associated devices. Screen shot evidence of editing tracks.	Create screen shot evidence of coding development evidence. Save project files and written logs of development.	Present evidence of data and information. Develop evidence of understanding data logs, points and sets.	Present final edited files. Show development process of files over time.	Screen shots of coding challenge activities. Save project files of coding solutions.
Develop electronic evidence files and screen shots of evidence of internet usage.	Produce evidence of raw and exported project files.	Present evidence of testing and modifications of commands.	Develop evidence of data analysis.	Consider and write about the effectiveness of the editing process over time and choices made to date.	Present descriptions of coding annotations.

Personal Development	Personal Development	Personal Development	Personal Development	Personal Development	Personal Development
Think about keeping safe with technology. Recognise computer hardware devices and software applications.	Consider end user opinions and sensitivities within the project outcomes.	Consider end user interactions in relation to a target audience.	Understand the wider world implications of data collection and processing in their own family lives.	Able to consider image developments in relation to customizing materials to suit their own personal interests	Consider how iteration is useful in a cross curricula perspective when developing solutions.
Reading & Writing	Reading & Writing	Reading & Writing	Reading & Writing	Reading & Writing	Reading & Writing
New technical vocab and in app menus.	Learn to understand industry standard terminology in relation to audio editing, through handouts and in app information features.	Use online sites and handouts to help comprehend command scripts.	Interpret data and information for given scenarios.	Students will learn methods for editing and optimisation	Use online sites and handouts to help comprehend command scripts.
Speaking & Listening	Speaking & Listening	Speaking & Listening	Speaking & Listening	Speaking & Listening	Speaking & Listening
Communicate thinking and share ideas with the class group	Share ideas and thought processes with the class group	Discuss their developments with peers and staff.	Communicate conclusions and reasoning clearly and effectively.	Discussion round robin opportunities for peer reviews.	Consider the solutions and feedback to peers and staff.
Numeracy & Mathematical Reasoning	Numeracy & Mathematical Reasoning	Numeracy & Mathematical Reasoning	Numeracy & Mathematical Reasoning	Numeracy & Mathematical Reasoning	Numeracy & Mathematical Reasoning
Numerical settings within app scaling and formatting tool selections to consider.	Numerical control options as part of the editing processes.	Numerical logical controls within the development of programing scripts.	Utilise numerical settings and control within the processing of data and information.	Considering numerical features within app settings and optimization of files.	Explore numerical controls and conditions within programing
Creative Media	Creative Media	Creative Media	Creative Media	Creative Media	Creative Media
Office applications, PC's and white board.	Audacity, Internet Explorer, PC's, audio devices.	Scratch, online repositories, PC's, white board.	Office applications, PC's and white board.	Photo editing software, PC's, white board and Internet Explorer	Scratch, online repositories, PC's, white board.