Computing

Intent

Medlock Primary School's computing provision is underpinned by the requirements set out by the National Curriculum. It aims to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. Technology is everywhere and will play a pivotal part in students' lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. By the time they leave Medlock Primary, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully).

Implementation

Our children begin their journey with technology in Early Years, with access to a range of opportunities to develop their problem solving skills and creative thinking so that they are ready and prepared for the computer science curriculum to come as well as early coding experiences within the setting.

Our Key Stage scheme of work provides coverage in line with the National Curriculum. The teaching and learning facilitates progression across all key stages within the strands of digital literacy (Multimedia), information technology (Online Safety) and computer science (Coding). The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms. Through our whole school oracy approach, the lessons will be driven by subject specific vocabulary that will deepen their understanding of all technical terms.

Medlock Primary School **Current Long Term Plan** – Computing 2020/21

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	ALL
AUTUMN THEME							**Focus:** **Online safety reporting bad behaviour Thinking as a programmer.**
Autumn 1	Online Safety See progression documents	Online Safety See progression documents	Online safety See progression documents	Online Safety (Parent Zone) + How to use Google Classrooms	Online Safety (Parent Zone) + How to use Google Classrooms	Online Safety (Parent Zone) + How to use Google Classrooms	
Autumn 2	Barefoot coding/beebots	Barefoot coding/beebots	Discovery Coding Level 3 refresher and sequence	Discovery Coding Level 4 refresher and variables	Discovery Coding Level 5 Speed, direction and coordinates	Discovery Coding Level 6 refresher and complex variables	
Assessment	AFL	AFL	AFL	AFL	AFL	AFL	
SPRING THEME							**Focus:** **Online safety reporting bad behaviour Thinking as a programmer.**
Spring 1	Online Safety Week (mid february)	Online Safety Week (mid february)	Online Safety Week (mid february)	Online Safety Week (mid february)	Online Safety Week (mid february)	Online Safety Week (mid february)	
Spring 2	Discovery Coding Level 1 On the move	Discovery Coding Level 1 refresher + Level 2 different sorts of inputs	Kodu/Scratch/ barefoot coding	Kodu/Scratch barefoot coding	Kodu/Scratch barefoot coding	Kodu/Scratch barefoot coding	
Assessment	AFL	AFL	AFL	AFL	AFL	AFL	
SUMMER THEME							**Focus:** **Online safety reporting bad behaviour Thinking as a programmer.**
Summer 1	Create, store and retrieve digital content by using Microsoft Word to create a word file, save it. Re-open it and edit and re-save the file. Organise digital content by saving images from the internet or from Dropbox and creating a Pic Collage.	Create a word document and add images and change fonts.	Photography and using google sheets/excel	Searching google effectively Good sheets and google slides	digi maps (presentation) Explaining how the internet works/functions	digi maps (presentation) Explaining how the internet works/functions Using google sheets and google classrooms to research topics	
Summer 2	Discovery Coding Level 1 Simple inputs	Discovery Coding Level 2 buttons and instructions	Discovery Coding Level 3 Conditional events	Discovery Coding Level 4 repetition and loops	Discovery Coding Level 5 random numbers and sim+python html	Discovery Coding Level 6 object properties+python html	

	AFL	AFL	AFL	AFL	AFL	AFL	

Impact

Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident on Seesaw, as well as Google Classroom (for KS2 children) a digital platform where pupils can share and evaluate their own work, as well as that of their peers. Work can be saved through their individual accounts at their level of achievement and progress. Evidence such as this is used to feed into teachers' future planning, and as a topic-based approach continues to be developed, teachers are able to revisit misconceptions and knowledge gaps in computing when teaching through Wider Curriculum areas. Through staff and pupil voice, we will continue to gather formative information.

Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools, computing at Medlock gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.