Computing

Curriculum Statement

Intent

At Loxdale, we believe that the teaching and learning of computing is crucial to the development of all pupils in today's modern world. Children are encouraged to develop a greater understanding and knowledge of today's technology, including demonstrating positive online behaviours when using it. Our computing curriculum allows children to develop knowledge and skills that are transferable to other areas of the curriculum and can be used to allow children of all abilities to make good progress in these areas. Computing is a subject where we incorporate our Commando Joe Character Curriculum, giving the children ample opportunities to develop their personal skills, through completing computing projects and learning about positive online behaviours. By doing this, the children are able to demonstrate skills such as 'Self-Awareness' and 'Excellence', which will help them to succeed in other subject areas too. We seek to inspire and motivate children to show a curiosity and fascination about technology in the world today and the future. The curriculum is designed to introduce children in EYFS to a range of games and software that can be accessed via interactive whiteboards, iPads and other devices too, such as Bee-Bots. We then strive to develop knowledge and skills that are progressive, as well as transferable, which the children will then be able to apply to their further education and beyond.

Through teaching computing, we prepare the children with skills that enable them to participate in a world of rapidly changing technology. We provide them with opportunities to find, explore, analyse, exchange and present information. We also instil a deep knowledge of online safety, and how the children can use modern technology effectively whilst keeping themselves safe in the process. We also believe in giving the children opportunities to share their knowledge and expertise with others, our 'Digital Ambassadors' being a prime example of this. This group of children voluntarily help us to promote positive online behaviours and raise awareness of the dangers of working online, not only in our school, but also in the wider community, which has been a great platform for the ambassadors to develop their confidence and communication skills.

Our curriculum for computing aims to ensure that all pupils:

• can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation;

• can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems;

• can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems• to develop capability in visual and audio presentation;

• are responsible, competent, confident and creative users of information and communication technology.

Implementation

Computing at Loxdale is taught in blocks throughout the year, threaded into our topic where possible, to ensure that the computing skills are taught in context and that they are being used to underpin learning across the curriculum. 'Online Safety' skills are discussed and taught during PSHE lessons throughout the year, to ensure that positive online behaviours are constantly being reinforced. Units taught across the school have been mapped out and planned in a progressive way in order to deepen pupils' understanding of different areas of technology in a range of areas and to ensure that all children are fully digitally literate and are confident when using digital vocabulary. Teachers have identified the key knowledge and skills of each blocked topic and consideration has been given to ensure progression across topics throughout each year group across the school. Computing skills that have been covered and computing assessment documents move with the children into their progressive year groups, to ensure that computing skills are built upon appropriately and that misconceptions or gaps in learning are addressed. This informs the programme of study and also ensures that lessons are relevant and take account of children's different starting points. Consideration is given to how greater depth will be taught and evidenced within each lesson, as well as how learners will be supported in line with the school's commitment to inclusion.

Impact

Outcomes of pupil's work are evidenced within year group folders on our school 'Shared Area' and the computing skills that have been met are highlighted off on our school computing target sheets. The progress and attainment of all children is updated at the end of each year, taking into consideration the skills that have been demonstrated in all of the computing units throughout the academic year. We provide a broad and balanced computing curriculum that demonstrates children's acquisition of identified key knowledge, ensuring that the children have the appropriate technology available in school to allow them

to develop their computing skills effectively. Children review their successes in achieving the set objectives at the end of every unit, and are actively encouraged to reflect on the skills that they have developed and the work that they have completed. The children are also given opportunities to evaluate the work of their peers, developing their communication skills whilst sharing constructive feedback. As we value the opinions of our children, we regularly conduct pupil interviews to ensure that computing skills are being covered and that our computing curriculum is challenging and inspiring. As children progress throughout the school, they develop a deep knowledge, whilst understanding and appreciating how technology works. Through their growing knowledge and understanding of computing, children gain an appreciation of modern life in different societies, helping them to develop a sense of how technologies are used in other cultures, and how nations rely on each other in our 21st century world.