



Computing

Intent

The National 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 and be responsible, competent, confident and creative users of information and communication technology.

At West Road, we understand that technology is an important part of life. We aim to ensure children:

- Meet the aims of the National curriculum and are competent in the key concepts of computing.
- Have a range of transferable skills to perform tasks required in the future workplace.
- Understand how to use communication systems and have the fundamentals to succeed at high school.
- Are responsible and safe online citizens.

Implementation

At West Road, we have adopted and adapted 'Kapow Computing' to support our delivery of the computing curriculum across school.

Our computing curriculum ensures a broad and balanced coverage of the National curriculum requirements. It is organised into **five key concepts**,

creating a spiral curriculum model where previous skills and knowledge are returned to and built upon:

- computer systems and networks, where children learn the basic skills, how to stay safe online and use the internet for research.
- data handling, where children learn how to make online pictograms and use Excel.
- programming, which involves programming Beebots and coding on the apps ScratchJr and Sphero.
- creating media, where children have the opportunity to use StopMotion to create animations and Garage Band to compose music.

Each year group receives 40 minutes of computing every week and lessons are adapted to ensure that they are accessible and challenging for all learners. Lessons incorporate a range of teaching strategies such as, independent tasks, paired and group work as well as digital activities. We also ensure children have the opportunities to peer assess learning throughout each unit. Children have access to iPads, computers and chrome books so they can develop their skills and confidence using various technology.

Computing has been sequenced so that it enables children to progress through year groups. When planning and teaching within computing, teachers follow the principles of Rosenshine. This involves: providing clear models, careful use of questioning and assessment, independent practice and reviewing learning. Formative assessment is used to assess the children's progress and understanding throughout lessons. We also provide the opportunities for self and peer assessment when children showcase their work at the end of a unit.

Impact

Our computing curriculum will ensure that children leave school equipped with a range of skills to enable them to succeed in both educational and working life. Children will meet the end of key stage expectations outlined in the National Curriculum, show a clear progression of technical skills, be aware of online safety issues and be able to deal with any problems in a responsible manner. They will know that different types of software can help them achieve a variety of aims and have an understanding of how to use them.