**Computing**

*Technology is changing the lives of everyone. Through teaching computing we equip our children to participate in a rapid changing world where work and leisure activities are increasingly transformed by technology. We feel it is essential for children to become digitally literate in order to thrive in an increasingly changing and fast-paced world.*

**Intent**

At Keelby we aim for a high quality computing curriculum which will inspire and enable children to find, explore, analyse, exchange and present information. We also focus on the skills necessary for children to be able to use information in an effective way. Our curriculum takes in to account the content of the National Curriculum to ensure that our children have an accurate understanding of the progressive and wide array of computing skills necessary to be successful. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to achieve this. The essential knowledge and skills vital to becoming a successful and responsible user of technology has been carefully sequenced to ensure it builds within a year, across years and across subjects. Our pupils will learn knowledge about the physical and digital aspects of computer and network construction; know how to use technology to effectively research and underpin skills which will enable children to create documents and presentations; how to handle a wide array of data; use creative skills in order to create animations and digital media and most vitally gain an understanding of e-safety and the issues surrounding consent, online bullying and leaving a positive digital footprint. We want children to enjoy and love learning about computing by gaining these knowledge and skills, not just through experiences in the classroom, but also with the use of whole school activities and educational visits.

Via the national curriculum and our progression of skills, we will ensure that all pupils:

* Confident in using code and can understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation.
* When coding, pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
* Effectively develop and build a wide and varied range of skills in order to apply, analyse and evaluate information that is presented in a variety of ways
* Able to connect with others responsibly and are competent, confident and creative users of information and communication technology.
* Will have the awareness of key issues in computing such as: consent, bullying, plagiarism, copyright and privacy.
* The ability to think critically about computing and communicate ideas confidently and to a range of audiences
* A passion for computing and an enthusiastic engagement in learning, which develops their sense of curiosity about the world and technology around them
* A desire to embrace challenging activities, including opportunities to undertake high-quality tasks across a variety of computing aspects

**Implementation**

Leaders have carefully selected the knowledge and skills children at Keelby required to fulfil the aims of the subject. The long-term plan takes in to account the content of the National curriculum and the current skills of the children at our school. Key concepts have been identified that children encounter at different stages of their educational journey and then revisit repeatedly. The content has been mapped into 4 half termly units in Foundation Stage, which commences in the Spring Term. This progresses on to half termly units in Key Stage 1 and Key Stage 2. These units focus on key areas of computing and include word processing, presentations, animation and drawing, e-safety, data handing and coding.

In Foundation Stage, children study the basics of e-safety focusing on knowing the difference between online and real life events and examples of how people can be unkind online. They will the progress onto discovering the fundamentals of digital literacy, computer science and information technology.

In Key Stage 1, core skills will be taught in a sequential manner across differing units, which will then form the foundations for the progressive nature of the curriculum that follows. In Key Stage 2, children will revisit and built upon previously learnt knowledge and skills across various units of study, which focus on a wide range of computing topics, including e-safety, digital literacy and coding. Learning is chronological in nature and builds progressively and where possible links have been made to other subject areas.

Within a block of computing the key knowledge, skills and vocabulary have been identified for teachers to ensure that content and concepts are progressive across the whole school. All units begin with children investigating what key concepts are and what they are not. This is designed to support children in making links in their learning. Children then use a range of computing skills to obtain and apply new and existing knowledge. Opportunities are provided to present their acquired knowledge, learning and understanding in a range of ways. Consideration is given to how children who grasp concepts more rapidly and those learners who need more support are catered for within computing lessons.

**Impact**

Our computing curriculum is high quality, well thought out and is planned to demonstrate progressions of knowledge and skills. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

* A reflection on standards achieved against the planned outcomes
* An end of unit task giving children the opportunity to apply the skills taught throughout the unit.
* Pupil discussions about their learning

Outcomes for computing are evidenced via the use of a variety of applications and software. Currently a wide range of skills are practiced and taught via the use of iPads and laptops to ensure that children are accessing a broad range of technologies and given opportunities to practice skills in different ways. This is evidenced via the documents, images and projects saved directly to children’s iPads. In addition, evidence of children’s skills and outcomes are saved to individual year group folders on the School Drive.

The ultimate impact of our computing curriculum is that our children will have gained a balanced and broad range of skills and knowledge. It is the aim that all children will leave with computing skills that will allow them to build the foundations that will allow them to develop into computer literate and confidence when using a wide range of technologies.