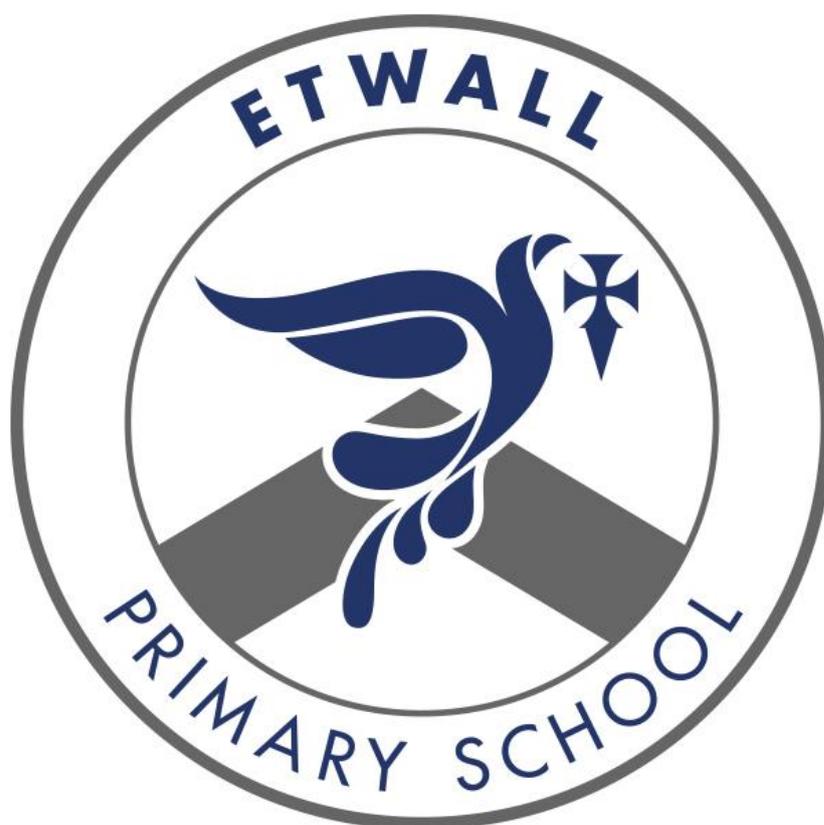


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Computing Intent, Implementation and Impact

Intent

Our intention is to build a computing curriculum, which is not only a structured sequence of lessons (helping teachers to ensure that they have covered the skills required to meet the aims of the national curriculum) but is also embedded across the whole curriculum. It needs to be ambitious, exciting and enriching, as well as continuously evolving so that it keeps up with constantly changing technology.

Our children have varying levels of computing experiences and competency outside of the classroom. Therefore, it is our intention that all children have access to experiences that they would not necessarily have elsewhere, as well as developing and challenging children's skills in computers science, information technology and digital literacy.

We want our pupils to responsible, competent and creative users of information technology so that they will have the independence and confidence to choose the best tool to fulfil whatever task and challenge is expected of them.

Curriculum Implementation

Through the sequence of lessons, we intend to inspire pupils to develop a love of the digital world and see its place in their future. Cross-curricular links are also important in supporting other areas of learning. Our lesson plans and resources help children to build on prior knowledge at the same time as introducing new skills and challenges.

Computing at Etwall Primary is taught in blocks throughout the year, so that children can achieve depth in their learning. Through their work in computing children always begin topics by discussing eSafety and how to remain positive in their online use. Topics taught across the school (see Appendix 1 for the Computing scheme of work overview) have been mapped out and planned in a progressive way over a 2 year cycle in order to deepen pupils' understanding of different areas of technology in a range of areas to ensure all children are fully digitally literate.

Children are also given multiple opportunities to demonstrate their knowledge and understanding in other subjects as we recognise that computing underpins learning across the curriculum. 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. At the beginning of each topic, children are able to convey what they know already as well as what they would like to find out. 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, learnt and demonstrated within each lesson, as well as how learners will be supported in line with the school's commitment to inclusion.

Our children begin their journey with technology in Early Years, with access to iPads, BeeBots and laptops. Teachers will facilitate children's curiosity with modelling how to use the technology carefully and safely, and then challenging children to explore the equipment for themselves. Children in Early Years Foundation Stage are assessed within Understanding the World and their progress is tracked termly using Tapestry.

In KS1, the focus is on developing the use of algorithms and programming through a variety of plugged and unplugged activities. Children will continue their journey with the BeeBots, using them more precisely. They will learn how to programme a BeeBot to reach a destination and begin to

debug when something goes wrong. Programming will then progress from BeeBots to coding apps, where children will learn how to programme a variety of sprites.

They will be taught how to use technology purposefully through exploring a range of software, as well as improving their mouse control and word processing skills. They will learn how to log on and off a laptop using their own username and password. They will learn about online safety and what they should do if they encounter something that makes them feel uncomfortable. They will understand what personal information is and why it is important to not share it with someone on the internet.

In KS2, lessons still focus on algorithms, programming and coding but in a more complex way and for different purposes, including controlling or simulating physical systems. They will continue to debug algorithms when something goes wrong by using decomposition. Children will develop their knowledge of computer networks and internet services. Children will collect, analyse, evaluate and present data and information in a variety of ways, as data Handling is featured more heavily in KS2. They will continue to develop their purposeful use of the internet and technology through a variety of software, becoming more competent at word processing. The children are taught online safety throughout each year of KS2. They will know how to keep themselves safe online and what to do if they come across something that makes them uncomfortable.

KS2 are taught the difference between being a bystander and an upstander and the importance of reporting something they experience happening to themselves or another person, as in accordance with our Anti Bullying Policy and our Online Safety Policy. Upper KS2 understand the importance of media balance and appreciate that as they get older, they are more responsible for their online presence, digital footprint and how often they access a variety of forms of media.

Impact

Learning in computing will be enjoyed across the school. Teachers will have high expectations and pupils' progress will be assessed using a combination of formative and summative assessment. The impact of our computing curriculum will be also presented in a variety of forms, including displays around schools, images of the children's practical learning in class portfolios, on the children's individual accounts and workshops with parents and carers. It can also be measured by speaking to/interviewing the children themselves.

Children will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident at using a range of hardware and software and children's outcomes will be high-quality and purposeful. Children will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives.

Skills Progression

The curriculum is intended to focus on essential core subject knowledge and skills. Our Skills Progression document for PSHE shows the year group expectations and sets out what will be taught in each year group based on the 2014 National Curriculum. Please refer to Appendix 1 for the skills progression for PSHE.

Assessment

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Key computing knowledge is taught to enable and promote the development of children's computing skills.

Assessment is supported by use of the following strategies:

- Observing children at work, individually, in pairs, in a group and in class during whole class teaching.
- Using differentiated, open-ended questions that require children to explain their understanding.
- Providing effective feedback, including interactive marking, to engage children with their learning and to provide opportunities for self-assessment, consolidation, depth and target setting.
- Computing folder moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners, with the acquisition of the pre-identified key knowledge of each topic being evidenced through the outcomes.

Early Years

We teach computing in the Early Years as an integral part of pupils' work covered during the year. As reception classes are part of the Foundation Stage Curriculum, we relate the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use computers and iPads. Then, during the year, they gain confidence and start using the computer to find out information and to communicate in a variety of ways. This involves guiding the children to develop sense of their physical world, as well as their community, through opportunities to explore, observe and find out about people, places, technology and the environment. They are assessed according to the Development Matters Attainment targets and assessments are recorded on Tapestry.

SMSC Development

Computing makes a significant contribution to the teaching of **social development** because children in computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the internet and e-mail. The school has developed a set of safe and discriminating behaviours for pupils to adopt when using the internet and other technologies and these are discussed as part of their **moral development**. Through discussion of e-safety and other issues related to electronic communication, the children develop their own view about the use and misuse of electronic equipment. **Cultural development** helps children to gain an insight into the interdependence of computer users around the world.

Diversity

Through computing, children learn about the diversity of national, regional, religious and ethnic identities in the 21st century; teachers encourage pupils to think about topical issues, problems and events and to use their computing learning to consider other people's experiences.

Equal Opportunities

At Etwall Primary, we are committed to providing a teaching environment which ensures all children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability. Teachers use a range of strategies to ensure inclusion. Support

for specific individuals is well considered and planned for, with consideration given to how greater depth and further challenge can be implemented.

Inclusion

All pupils are entitled to access the computing curriculum at a level appropriate to their needs. Independent tasks, as well as teaching, are also well adapted to ensure full accessibility, as well as to provide appropriate support and challenge to different groups of learners. The school makes full use of additional adults who are deployed effectively to ensure that identified children are able to make progress in each curriculum area, according to their full potential. Teaching takes account of children's own interests to ensure topic relevance to all individual learners. Opportunities for enrichment are also fully utilised, to ensure a fully inclusive and engaging computing curriculum.

Health and Safety

The curriculum will be delivered in a safe and healthy manner and every effort will be taken to identify risks associated with a curriculum subject/activity and the appropriate control measures will be implemented. Children will be educated about health and safety issues as and when the opportunity arises throughout the course of normal teaching.

All equipment in school is tested every twelve months to ensure it meets BSE standards and is fit for purpose and safe to use. Online safety takes a high priority and is the starting point of every topic. Children and parents have information regularly communicated to support their online safety at home as well as at school.