

Subject Statement

Our vision for Computing:

When teaching computing at The District CE, our aim is to equip the children with the skills required to use computers effectively as tools to enable them to maximise their potential. To do so, we aim to deploy teaching strategies that promote resilience, independence, critical thinking, communication skills and problem solving. We hope that our pupils become confident users of IT and responsible digital citizens who are ready to meet the challenges of their digital future.

Implementation

At The District CE Primary School, our aim is to teach the children skills in a way that is both sequential and relevant to their learning projects in other areas. To ensure this, our curriculum draws content from a range of sources, so that the subject content and skills taught are relevant and sequential, whilst the theme of the lessons is relevant for the children.

Guidance for teachers and subject content is predominantly drawn from three schemes of learning: the “Switched on” computing scheme, the “Purple Mash” computing scheme and the SWGFL Digital Literacy scheme. The sequence of new skills and vocabulary learned by the children and the year-group in which they are learned are outlined in the computing progression document.

Each year-group’s planned units of study cover each of the three elements of computing (computer science, information technology, and digital literacy) at least twice throughout the year. Weekly computing lessons are taught in all year groups, whilst additional opportunities are sought to teach the fundamentals of digital literacy within other curriculum areas and during Worldwide sessions.

Early Years Foundation Stage (EYFS)

In the Early Years Foundation Stage, computing is not taught as a discrete subject. The pupils are introduced to using a range of electronic toys and talk about the range of technology that is used in their homes and in school. They begin to use technology for different purposes, for example by using digital drawing tools and recording videos and audio.

Key Stage 1

During Key Stage One, computing is taught weekly as a discrete subject. The pupils’ learning is split into three sections at this point: digital literacy, information technology and computer science.

- Digital Literacy – Pupils are taught to use the internet safely and to think critically about the sites they choose to visit. They are taught to keep their private information secure and to respect the privacy of others. They are taught to identify which websites are safe to access and what to do when something happens online that causes them concern. Pupils are also taught that how they behave online leaves a digital footprint.
- Information Technology – Pupils learn to use the internet effectively to search for information and content to use in their own work. They create their own digital content in the form of photographs, presentations and e-books, and collect and represent data in the form of pictograms.
- Computer Science – Pupils learn the fundamental computer science concepts of sequence and iteration and apply them to create “unplugged” and digital algorithms using programmable toys

and simple computer coding programs such as scratch junior and purple mash. They are taught to identify “bugs” in their algorithms and to solve them logically.

Lower Key Stage 2

Throughout Key Stage 2, computing continues to be taught weekly, with content split into three parts: digital literacy, information technology and computer science.

- Digital literacy – Pupils learn practical skills to use computers effectively and responsibly, such as generating passwords that are memorable, yet secure; using search engines more precisely for research and using emails effectively and safely.
- Information Technology – Pupils continue to use computers to store and present data in different ways. They also learn to use the internet for collaboration using blogs and wikis and learn about the physical parts of computers and what they do.
- Computer Science – Pupils are introduced to the concept of “Selection” as they create more complex algorithms during both unplugged and computer programming activities. The concept of debugging is re-visited and pupils use decomposition and abstraction when planning their work.

Upper Key Stage 2

- Digital Literacy – Pupils use what they have learned in previous years to interrogate relevant situations that they may be faced with, such as receiving spam emails, being asked to share information about themselves and when this might be acceptable. They also learn how things they see online may influence their perceptions and values and to think critically about the content they view online and its purpose.
- Information Technology – Pupils use IT to produce more complex digital content and to explore the capabilities of modern technology such as smartphones and 3D printers.
- Computer Science – Pupils apply what they have learned in previous years to design, programme, debug and evaluate their own animations and games.

Inclusion

As a school, we ensure that all pupils can engage with computing learning irrespective of their race, cultural background, gender, religion, creed, level of intellectual ability or physical and emotional circumstances.

As far as is appropriate, pupils with special educational needs should follow the same computing education programme as all other students. Careful consideration is given concerning the level of differentiation needed, and in some cases the content or delivery will have to be adapted. Teachers and/or learning support assistants work with individual pupils where required, and if appropriate. It is not the school’s policy to withdraw pupils with special educational needs from computing education to catch up on other National Curriculum subjects: these aspects of personal and social development are as important to all pupils as their academic achievement.

Recording and assessment

As mentioned above, computing lessons can take many forms and activities vary, dependent on the learning intentions from lesson to lesson. Tasks may require pupils to write, draw, act, take photos or videos, or work on computers in response to the teaching, or they may simply be asked to talk or play a game related to the topic.

Throughout a unit of work and in response to daily incidents and issues, teachers use formative assessment to tailor planning to suit the needs of their class.

In the EYFS, class teachers assess children's development and progress in computing by making informal judgements as they observe children.

In Key Stage 1 and 2, class teachers gather evidence of what individual pupils know, understand and can do in computing by observing them at work, listening to and discussing with them, and evaluating and responding to any work they produce. At the end of each half term, an assessment of learning outcomes is recorded on Insight, identifying which children need further reinforcement or extension and what this should consist of.

Monitoring

The computing lead monitors and reviews the implementation and development of the computing curriculum in consultation with the Headteacher, staff members and governors. Monitoring is done through a range of methods including:

- Regular planning and work scrutinies
- Learning walks
- Teacher observations
- Teacher, pupil and parent consultations