COMPUTING POLICY 2024

Computing Intent

At The Woodland Federation of Peak District Schools, we believe that every child should have the right to a curriculum that champions excellence, supporting pupils in achieving this to the very best of their abilities. We understand that immense value technology plays not only in supporting the Computing curriculum and the wider school curriculum but also in our day to day lives. We believe that technology can provide:

- enhanced collaborative learning opportunities
- better engagement of pupils; easier access to rich content
- support conceptual understanding of new concepts and support the needs of all our pupils.

We want to ensure that our children are prepared for the modern world and develop values that will help them be responsible citizens of the future. With this in mind, we have developed our computing curriculum to not only develop their computing skills but educate our pupils on how to use technology positively, responsibly, and safely.

We aim to educate SMILERS, nurturing children who are healthy, happy and hungry to learn.

Implementation

Every child benefits from a discrete, weekly computing lesson and teachers also provide opportunities for children to access technology in other areas of the curriculum. Our computing curriculum is based on the NCCE Computing units. Our use of the scheme was developed in conjunction with support from a STEM ambassador to ensure that our rolling programme is coherently planned. The programme fully covers the requirements of the National Curriculum and is sequenced to allow children to build upon their computing knowledge as they progress through each year of school. The lesson plans created by the NCCE have been chosen because they offer fun, creative hands-on activities which challenge misconceptions and break the National Curriculum down into small steps. We find the NCCE scheme to be clear, systematic, and easy to teach so it is ideal for all members of staff to follow. It has been designed for teachers from all backgrounds who want to improve their knowledge and teaching practice. The NCCE scheme has also been chosen because it has a clear structure, detailed planning, and a well-thought-out journey through learning.
Safety in a digital world is extremely important and we have supplemented our programme with Online safety sessions from Common Sense Education, which is aligned to the Education for a Connected World. Pupils will also learn how to protect themselves online during PSHE sessions using PSHE Matters. To further support the safety of our pupils, we regularly send parents National Online Safety guides and make these available via our website.

Impact

Children will be confident users of technology, able to use it to accomplish a wide variety of goals linked to information technology, computer science and digital literacy both at home and in school.
Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.
Children will know how to behave online, considering their digital footprint and how their actions can have impacts beyond their school or locality. The children also investigate and develop key ideas regarding current issues in school or society.
Pupils will learn to showcase, share, celebrate and publish their work to best show the impact of our curriculum. This will be cross-referenced with our long-term plan and progression of skills document.
Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.

National Curriculum Aims

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.
- Are responsible, competent, confident and creative users of information and communication technology.

Our Curriculum

Long term planning

- The National Curriculum for Computing 2014 provides the long-term planning for computing taught in school.
- The school uses and adapts the National Centre for Computing Education scheme of work and long- term planning outlines which topic will be covered by which year group and at what time of year.
- Long term planning ensures knowledge and skills progression in computer science, digital literacy and information technology.

Medium term planning

- These schemes provide teachers with examples for computing objectives and include the technical knowledge to be delivered and skills to be developed across all phase groups.
- Years Y1-6 use the National Centre for Computing Education schemes of learning as their medium-term planning documents.
- Nursery and Reception will plan from the Early Years Framework using activities such as Barefoot Computing Activities and Common Sense Education to introduce online safety. Although computing is not specifically mentioned in the new framework, we believe it is essential to introduce children to computational thinking and E Safety to ensure that they have skills manage their online behaviour. EYFS planning is based on the medium-term plans and delivered as appropriate to individual children/groups with consideration of where the children are now and what and their next steps.

Short term planning

- The above scheme of learning supports individual lesson planning.
- Teachers plan lessons to achieve specific lesson objectives, incorporating teaching methods outlined below.
- Teachers of the EYFS ensure the children learn through a mixture of adult led activities and continuous provision both inside and outside of the classroom.

Teaching Methods

The emphasis in lessons is to develop an understanding of how computers work, how they can be used as effective tools and how to keep safe whilst using computing technology. Children have the opportunity to work both individually and collaboratively to learn and develop their skills in programming, digital resource creation, electronic communication, research, control and information handling. They will also develop an increasingly broad understanding of technology including hardware, network and the Internet. All work conducted online will be delivered in the context of how to stay safe whilst accessing the World Wide Web.

Within lessons, new subject specific vocabulary is introduced and used consistently and accurately. Each lesson provides opportunities for children to build on prior knowledge and learning.

In KS1 and KS2, the following activities are delivered in sequence to enable creativity based on increasing confidence and competence within IT and Computer Science and Digital Literacy:

- Creation of digital media projects
- Effective communication using computing technology
- Conducting research projects
- Handling Information
- Programming and control
- Understanding technologies

From September 2021 the early learning goal (ELG) in technology was removed from the EYFS statutory
framework. Previously the ELG stated "Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes." Despite its exclusion from the renewed framework, technology undoubtedly has a role to play in early years classrooms, both in preparation for the National Curriculum and within the context of a technologically advanced society.
In EYFS, our children develop computing skills through both adult focussed activities and within the daily continuous provision. Children have access to games and programmes on the Interactive Whiteboards, iPads for individual use of games and painting programmes, and we have a bank of programmable toys (bee-bots) for independent exploration into learning about coding. We also have cameras and iPads for the children to use in their free time. Adults staffing within our Continuous Provision will show children how to use the resources effectively and encourage them to further increase their knowledge and skills. We also demonstrate how technology is used by encouraging the use of search engines to find out answers to their questions and to watch videos and play music.

Special educational needs & disabilities (SEND)

Computing is taught to, and inclusive of, all children, whatever their ability. Using high quality resources, teachers provide learning opportunities that are matched to the needs of children with learning difficulties and when necessary, take into account the targets set for individual children in their plans.

Assessment

- Children in the Foundation Stage are assessed in accordance with the EYFS curriculum.
- Assessment trackers are used in years 1-6. Class teachers collect data, assessing if children are working below, at or above the expected levels linked to the specific statements for each Computing Unit.
- As appropriate, teachers provide support and identify specific next steps in learning for target individuals or groups of learners.
- Marking and responding to feedback– see school policy.

Monitoring

The Curriculum leader, alongside SLT, is responsible for monitoring and evaluating curriculum progress. This is done through work scrutiny, planning scrutiny, resource audits and learning walks which involve lesson observation drop-ins, pupil interviews and subject-specific conversations with staff.

Evidence of computing may be found in floor books or electronic information will be collected via ClassDojo and may also be seen in work completed in the wider curriculum.

Role of Subject Leader

- The subject leader, together with the head teacher, is responsible for monitoring and evaluating the quality of teaching and learning of computing across the school, and ensuring continuity and progression of knowledge and skills through the coverage of the subject.
- The subject leader is responsible for collecting and analysing school data in consultation with the assessment co-ordinator.
- The subject leader will undertake any relevant training and keep abreast of current initiatives.
- The school leader will support colleagues with relevant training, planning ideas, lesson delivery and assessment as appropriate.

Policy Date: April 2024