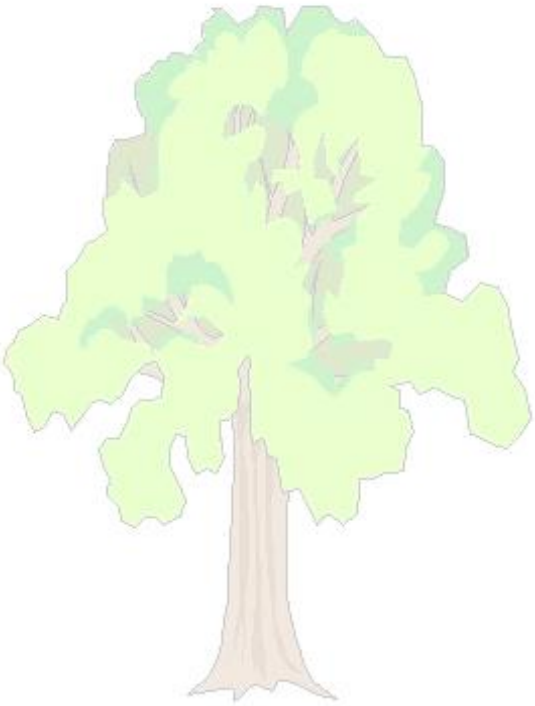
Computing Policy



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Senacre Wood Primary School Computing Policy

INTRODUCTION

The National Curriculum states that:

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world."

At Senacre Wood Primary School, we aim to provide our pupils with the opportunity to gain fundamental life skills that will enable our pupils to embrace, enjoy and utilise a range of technology in our modern-day world. We intend to integrate technology within all areas of the curriculum through targeted, well-planned lessons in both core and foundation subjects.

INTENT

At Senacre Wood Primary, we follow the aims of the National Curriculum 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.

National Curriculum 2014

Computing at Senacre Wood is broken down into six areas of skill-based development; generic skills, e-safety, technology in our lives, programming, multimedia and handling data. These areas are taught progressively each year, so that all students can develop transferable computing skills by the end of KS2.

The school believes that IT, computer science and digital literacy:

- Are essential life skills necessary to fully participate in the modern digital world.
- Allows children to become creators of digital content rather than simply consumers of it.
- Provides access to a rich and varied source of information and content.
- Communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- Can motivate and enthuse pupils.
- Offers opportunities for communication and collaboration through group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.
- Enables children to feel competent, confident and creative when using information and communication technology.
- Enables children to become responsible users of information and communication technology, showing an understanding of how to stay safe online, including what to do if they feel something is not appropriate.

IMPLEMENTATION

PLANNING

Our computing curriculum is taught using Kapow scheme of work, providing the opportunity for children to revisit concepts throughout their time with us. This ensures pupils are able to develop depth in their knowledge and skills over the duration of each of their computing topics. Where relevant, some modules are taught in specific terms to compliment other cross-curricular units of learning, e.g. data handling, when teaching this in mathematics. Content is selected carefully to allow richer and deeper learning experiences.

Senacre Wood Primary School has a range of resources and accessible devices to support teaching and learning in all year groups, which are stored in a central area.

LESSONS AND ENVIRONMENT

- Clear pupil speak 'I can…' learning objectives with differentiation for all abilities used within the success criteria provided.
- Activities planned encourage the development of skills as well as expert knowledge and retained understanding.
- Inclusive classrooms for all learners.
- Pupils clearly understand what they are learning and how it links to previous knowledge.
- Opportunities are given to assess, feedback and move pupils' learning forward throughout a lesson.
- A range of questioning techniques used throughout the lesson.
- Pupils are involved in accurate self and peer assessment/ reflection through online task sharing.
- Seesaw evidencing indicates progression in learning and pride in work
- Opportunities for group, pair and individual work are given.
- Use of the school's teaching and learning policy in all lessons

MARKING AND FEEDBACK

All children are entitled to regular and comprehensive feedback on their learning, to enable them to become reflective learners and help them close the gap between current and desired performance. We take a professional approach to the tasks of observing skills, monitoring or marking work (depending on the format of the computing task) and giving feedback on it. In computing, work is uploaded to class Seesaw platforms and reflected on by teachers and occasionally students. This could be in a written or verbal form. All feedback will be given in line with the school's feedback and marking policy.

ASSESSMENT

Children will be assessed throughout a unit of work through retrieval tasks, based on previous learning. This could be through questions, quizzes or demonstrations of a skill and will have a focus on computing vocabulary. All children will be assessed using against the success criteria set out by Kapow. At the end of each unit, teachers will assess a child's overall understanding of the topic based on Working Towards, Secure or Mastering by RAG rating on a spreadsheet. All assessment will be made in line with the school's assessment policy.

COMPUTING IN EARLY YEARS FOUNDATION STAGE

In Early Years Foundation Stage, all areas of learning and development are important and inter-connected. Three areas are particularly crucial for igniting children's curiosity and for building their capacity to learn, form relationships and thrive; knowledge, creativity and critical thinking. Computing is introduced as a subject through these areas holistically.

Children will learn about handling data, programming, multimedia and technology in their lives as they explore the world around them and how technology is an everyday part of their learning and understanding of the world. We aim to provide our pupils with a broad, play-based experience of computing in a range of contexts. We aim to ensure pupils can gain confidence, control and language skills through an assortment of computing opportunities. Teachers facilitate ICT scenarios based on experience in the real world, such as in role play.

EQUAL OPPORTUNITIES AND INCLUSION OF ALL LEARNERS

Although the learning objectives are statutory, we acknowledge that when taking account of these, some objectives may take longer to achieve than others, depending on children's varying abilities. Teachers consciously and strategically plan the teaching and activities across the ability range whilst consistently monitoring pupil progress. Intervention at the point of learning ensures the pupils are learning more precisely and are continually motivated and make more progress.

Productive repetition of some ideas will be vital for reinforcing each concept, and vocabulary used when teaching needs to be checked against understanding. We understand that practical experiences are the most valuable educational tool and are essential for pupils with special educational needs.

IMPACT

We aim to provide children with the key technology skills needed for use in the wider-world. If children are able to demonstrate an understanding of the required knowledge and skills within their year group's skills progression, they will be assessed as meeting age-related expectations.

The impact of their learning will also be measured through a range of cross-curricular methods:

- Children can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Children can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Children are responsible, competent, confident and creative users of information and communication technology
- A celebration of learning for each term which demonstrates progression across the school.

ROLE OF THE COMPUTING SUBJECT LEADER

- To lead in the development of computing throughout the school.
- To monitor the planning, teaching and learning of computing throughout the school.
- To provide teachers with support in the teaching of computing with purpose.
- To help raise standards in computing.
- To moderate methods of recording progression and lesson evidencing.
- To monitor and maintain a high quality resource bank and computing equipment.
- To keep up to date with new developments in areas of computing.