Policy written Summer 2023

Next Review 2026

Water Orton Computing Policy

Intent

Water Orton Primary School encourages children to use technological devices confidently and competently. Our intention is to ensure children are able to apply their lifelong learning to a wide range of scenarios. We encourage children to apply a curiosity and creativity approach to challenge, problem solve, adapt and implement designs which make a difference. It is intended that the skills children learn and develop at Water Orton will be critical to the children's learning journey in Computing. Teachers deliver engaging Computing content fuelling inspiration and aspiration in the children we teach.

Due to the development of modern technology, Computing skills are essential to everyday life. A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world (National Curriculum 2014). With strong links to Science, Engineering, Design Technology and Mathematics, Computing skills are highly important to ensuring children are digitally literate and are now heavily relied upon for most forms of employment. Children will also learn the appropriate skills needed to ensure they are kind, thoughtful and compassionate members of the ever-growing digital world.

Through our teaching of Computing, we aim to ensure that all children:

- 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.

  What the children will learn in computing:

Our aim across the school is for children to:

- Understand how networks can be used to retrieve and share information and the associated risks
- Understand what a computer is and how its constitutional parts function together as a whole
- Understand how data is stored, organised and used to represent real word scenarios
- Create software to allow computers to solve problems
- Comprehend, design, create and evaluate algorithms
- Understand how individuals, systems and society as a whole interact with Computing systems
- Understand risks when using technology and how to protect individuals and systems
- Select and create a range of media including text, images, sounds and video
- Plan, create and evaluate Computing artefacts
- Use software to support Computing activities
- Develop a positive attitude towards Computing
- Have an awareness of the relevance of Computing in the real world
- Understand of how to use IT and Computing safely and responsibly
- Have the confidence to use and apply computing knowledge to Computing throughout later life
- Solve problems, think creatively and to work both independently and as part of a group to solve

  problems

- 'Debug' – learn from/ recognise mistakes
- Ask and answer questions
- Take part in computing lessons with enthusiasm
- Respond to new developments in technology

We aim to provide a stimulating and exciting learning environment that takes in account different learning styles and uses appropriate resources to maximise teaching & learning.

Implementation

In both Key Stage 1 and 2, all class teachers follow the planning from National Centre for Computing Education

(Teach Computing Scheme of Work) which has been distributed in a Water Orton Computing long term plan.

Online Safety is planned for using Project Evolve. This planning ensures good progression and coverage across

the primary age range, with prior learning being revisited and then built on across the different key stages.

Long Term Planning

All year group teams will have a long-term Plan that outlines the Computing curriculum coverage for each term. Computing is planned on a two-year rolling programme.

Medium Term Planning

Medium term plans can be found as part of the Teach Computing Scheme of Work as Unit Guides. Teachers complete 'knowledge maps' to assess Online Safety knowledge at the beginning of the term with their class. The results of these assessments highlights which specific areas of the topic need to be taught to the class. Teachers then download resources and objectives which are tailored to their class.

Short Term Plans

Teachers use PowerPoint plans downloaded directly from Teach Computing or Project Evolve scheme of work and adapt them as necessary.

Within the computing lesson, teachers have a responsibility to not only provide differentiated activities to support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

Extra support for Computing:

Extra support is given to both staff and children who are less confident in Computing. Regular updates are given to staff as a part of staff meetings and training days in order to ensure knowledge is kept up to date. Extra support is provided to Year 1 and Year 2 children by using QR codes to log on to the school system. Those children who are identified as SEND are closely monitored by the teacher and school SENCO. In class, children can be supported in various ways, including through adult support, additional resources, differentiated work etc.

To support the use of technology and the delivery of the curriculum, members of teaching staff have also undertaken year group specific training from the National Centre for Computing Education where they were supported by expert members of staff to aid delivery. Equipment to supplement learning can also be borrowed to be used in school to allow further engagement by pupils.

Impact

Each lesson class teachers put photographic or written evidence into the Computing evidence 'Evidence Me' using an app on their iPads. This saves into a school wide bank of evidence and includes details of the task children completed.

Computing is monitored throughout the academic year in the following ways:

- Discussions with phase groups regarding teaching and learning
- Lessons delivered to each class throughout each term by the Computing Lead
- Lesson evidence stored as observations on Evidence Me
- Team taught lessons with staff
- Monitoring of Evidence Me
- Exit Tickets/quizzes and end of unit check ins.
- Pupil voice discussions
- Analysis of pupil progress and attainment (using Sonar) in order to address underachievement for

  individuals or groups of children (termly)

- Verbal feedback is used to give children instant feedback.
- Impact of Online Safety assessed through the use of Knowledge Maps on Project Evolve