THAMES VIEW JUNIOR SCHOOL COMPUTING POLICY AND GUIDANCE

Updated September 2025

Intent

Computing at Thames View Junior School intends to develop 'thinkers of the future' through a modern, ambitious and relevant education in computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Our aim is to provide a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Beyond teaching computing discreetly, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum.

Implementation

Our scheme of work for Computing is adapted from the 'Teach Computing' Curriculum and covers all aspects of the National Curriculum. This scheme was chosen as it has been created by subject experts and based on the latest pedagogical research. It provides an innovative progression framework where computing content (concepts, knowledge, skills and objectives) has been organised into interconnected networks called learning graphs.

The curriculum aims to equip young people with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. The curriculum can be broken down into 3 strands: computer science, information technology and digital literacy, with the aims of the curriculum reflecting this distinction.

The national curriculum for computing aims to ensure all pupils:
- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation (Computer science)
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems (Computer science)
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems (Information technology)
- Are responsible, competent, confident and creative users of information and communication technology. (Digital literacy)

Impact

At Thames View Junior School, our pupils will:

- Be enthusiastic and confident in their approach towards computing.
- Have a secure understanding of the positive applications and specified risks associated with a broad range of digital technology.
- Present as competent and adaptable Computational Thinkers who are able to use identified concepts and approaches in all of their learning.

- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Create and evaluate their own project work.
- An understanding of computing related industry and careers.
- High aspirations, which will see them through to further study, work and a successful adult life.

Vision and aims

Our vision for computing education at Thames View Junior School is to empower all students to become confident and competent users of technology. We aim to:

- Develop students' computational thinking and problem-solving skills.
- Equip students with the knowledge and skills needed to navigate an increasingly digital world.
- Promote creativity, collaboration, and critical thinking through the use of technology.
- Ensure that all students have access to high-quality computing education, regardless of their background or ability.

Curriculum Framework

1. Alignment with National Curriculum

Our computing curriculum is aligned with the National Curriculum for Computing and follows the 'Teach Computing' framework, covering the following key areas:
- Computer Science: Understanding algorithms, programming, and computational thinking.
- Digital Literacy: Navigating online environments, understanding digital citizenship, and using technology safely and responsibly.
- Information Technology: Using applications and tools to create, manage, and present information.

2. Progression and Continuity

- The curriculum is designed to ensure progression and continuity in learning, with clear learning objectives and outcomes for each year group.
- Units of work build upon prior knowledge and skills, allowing students to deepen their understanding of computing concepts.

3. Cross-Curricular Links
- Computing will be integrated with other subjects, such as mathematics, science, and literacy, to enhance learning and demonstrate the practical applications of technology.
- Opportunities for interdisciplinary projects will be identified to reinforce computing concepts and encourage collaborative skills.

Teaching and Learning

1. Active Learning
- We prioritise active, hands-on learning experiences where students engage in programming, problem-solving, and collaborative projects.
- Students will have opportunities to create their own projects, develop apps, and engage in real-world applications of computing skills.

2. Differentiation

- Teaching methods and resources will be differentiated to meet the diverse learning needs of all students, including those with special educational needs and disabilities (SEND).
- Teachers will provide additional support and resources to ensure all students can access the curriculum effectively.

3. Use of Technology
- Students will have access to a range of technology, including computers, tablets, and programmable devices, to support their learning.
- We will utilize online resources, coding platforms, and educational software to enhance the computing curriculum.

Assessment and Monitoring

1. Assessment
- Regular formative assessments will be conducted to monitor student progress and understanding, providing feedback to inform future teaching.
- Summative assessments will take place at the end of each unit to evaluate students' knowledge and skills in computing.

2. Monitoring
- The computing coordinator will monitor the implementation of the computing curriculum and assess the quality of teaching and learning through lesson observations, student work scrutiny, and feedback from staff and students.
- Annual reports will be generated to evaluate the impact of the computing curriculum on student outcomes and engagement.

Resources

1. Physical Resources
- A variety of high-quality resources, including hardware, software, and online platforms, will be provided to support teaching and learning in computing.
- Classrooms and computing labs will be equipped with the necessary technology to facilitate effective computing education.

2. Professional Development
- Ongoing professional development opportunities will be provided for staff to enhance their understanding of computing education and the 'Teach Computing' curriculum.
- Staff will be encouraged to attend workshops, training sessions, and network with other schools to share best practices in teaching computing.

Health and Safety
- All computing activities will be conducted following strict health and safety guidelines, ensuring students use technology responsibly and safely.
- Students will be taught about online safety, including the importance of protecting personal information and recognizing potential risks in online environments.

Parental and Community Engagement

- Parents will be informed about the computing curriculum and encouraged to support their children's learning at home through various activities and resources.
- Opportunities for community involvement, such as coding clubs, workshops, and technology fairs, will be explored to enrich the computing curriculum.

<u>Review and Evaluation</u>

- This computing policy will be reviewed annually to ensure its effectiveness and relevance. Feedback from staff, students, and parents will be considered to make necessary updates.
- The impact of the computing curriculum on student engagement and learning outcomes will be evaluated regularly to inform future planning.

Conclusion

At Thames View Junior School, we are dedicated to providing a high-quality computing education that prepares students for a rapidly evolving digital world. By implementing the 'Teach Computing' curriculum, we aim to develop confident, capable, and responsible users of technology who are equipped to thrive in the future.

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