Computing Policy

Reviewed February 2024

Due for review February 2026

Westdale Infant School Computing Policy

This is the Computing Policy for Westdale Infant School, where we believe that every child has the right to an education (as in accordance with UNCRC article 28). The teaching of computing will fulfil the children's rights.

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 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.

Intent

At Westdale, our intention is that pupils will be able to access a broad curriculum that balances the different skills needed within Computer Science, Information Technology and Digital Literacy. We know that our children start school with different levels of computing understanding.

Our curriculum is designed to ensure that all children have access to progressive, creative and engaging opportunities in computing, preparing them for their future as a lifelong learner. Specific language development will enable them to understand the technical vocabulary linked to computing and the skills they are learning.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, Including algorithms, simple programs, logical reasoning, and prediction. We also aim for pupils to store, manipulate and retrieve digital content, as well recognise how technology is used across the wider world purposefully and creatively. We believe that young children need a strong, but age-appropriate, understanding of how to keep safe when using modern computing technology and the internet. This will then allow pupils to feel protected, well-informed, and able to self-regulate when using technology and the internet and all it has to offer.

We want learners to discuss, reflect and appreciate the impact computing has on their learning, development, and well-being. We are aware that with the increased use of technology, children are becoming more exposed to a variety of E-Safety risks. Through our computing and PSHRE curriculums, we aim to build pupils' awareness of the risks which may be exposed, so that they have the confidence and understanding to seek advice and to deal with any risks in an appropriate manner. This policy should be read in conjunction with our E-Safety policy, which explains how e-safety is taught and the schools' roles and responsibilities towards E-Safety. This essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

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Implementation

Our computing curriculum recognises that Computing is taught as a discrete subject as well as making links through other subjects. Many of the skills are transferable which provides a wealth of learning opportunities across the curriculum subjects.

Key Stage One

In Key Stage One, we use PurpleMash Computing Scheme, which covers all aspects of the National Curriculum including: Digital Literacy, Information Technology and Computer Science. Knowledge and skills are taught progressively, allowing the children to embed their learning over time. The children have access to IPads and Beebots to help support their learning. In addition to this, each classroom has a SMART Whiteboard, to further enable and enhance learning.

Our Computing curriculum is taught as a discrete subject as well as making links through other subjects within continuous provision. Many of these skills are transferable, which provides a wealth of learning opportunities across the curriculum. Pupils need to gain a foundation in the key attitudes, knowledge and skills that will provide them with success within Computing. Children will be taught disciplinary and substantive knowledge within the lessons that they undertake. Disciplinary knowledge is knowing how (methods and processes) and Substantive knowledge is knowing that (facts and concepts and how they are related).

By the end of Key Stage One, children would have been given the opportunity to use the skills that they
have been taught to achieve the National Curriculum:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Early Years

In Early Years, computing is not present in the EYFS curriculum, however as a school we use technology to support learning in other areas of the EYFS and to offer foundations of computing in preparation for the transition to year 1. The children in the EYFS learn how to follow instructions, explore programmable toys (Beebots) and use IWB games to support learning across other areas of the Curriculum. They begin to understand how we can use the internet for information that will help us in our learning and explore a range of different technologies. In Early Years pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate. Pupils in Foundation Stage class will have experience using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time. The Foundation Stage team plan for technology in a range of contexts.

E-Safety

We teach e-safety as an explicit part of our curriculum through Computing and PSHRE/PSED across the whole school. We discuss issues such as keeping personal information private, trusting people and sources online, age-appropriate games and content, treating others online as we would in real life and what to do if anything makes children feel uncomfortable online. We also use a range of age suitable literacy which introduces children to e-safety issues, such as 'Chicken Clicking', 'Smartie the Penguin' and 'Digiduck's Big Decision'. Our Westdale Promise is displayed in every classroom and reinforces the importance of being kind and safe online. Every class has a list of 'Our Computing rules' displayed in their classroom which highlights the importance of staying safe online. Annually, Internet Safety Day is recognised in school through assemblies and focused activities. Parents are invited in for children to share their E-Safety knowledge and to raise the profile and importance of keeping children safe online. Please refer to our Online Safety Policy.

Impact

Learning in computing is enjoyed across the school. Teachers have high expectations and quality evidence is presented in a variety of forms. Children use digital and technological vocabulary accurately, alongside a progression in their technical skills. They are confident using a range of hardware and software and will produce high-quality purposeful work. Children see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They are aware of how to stay safe online and are confident and respectful digital citizens.

Curriculum coverage and progression:

- Planning for Computing is implemented using two core documents: The National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage
- Westdale Computing Planning Progression Document is used to popular year group long-term plans.
- Long-term planning has been developed using the Purple Mash scheme of work for Computing.
- Our whole school overview of computing covers three main aspects:
    - Computer science
    - Information Technology
    - Digital Literacy
- Medium term planning takes account of differentiation and progression in Computer Science, Information Technology and Digital Literacy.
- Exemplification planning by Purple Mash can be used to support short term planning.
- E-Safety is a key part of our digital learning and is also developed through PSHRE.
- Opportunities for technology as a tool to support learning and teaching in all areas are identified in curriculum planning.

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Assessment:

- Formative assessment is used by the class teacher during whole class or group teaching.
- Children's confidence and difficulties are observed and used to inform future planning.
- Each class teacher maintains a record of who has completed set '2Do' tasks and may review and monitor specific children's work saved.
- Open questions are used to challenge children's thinking and learning.
- Children are encouraged to support each other in a positive and supportive manner within their computing experiences.
- Teacher's judgments are supported through an electronic portfolio of evidence which provides examples of age-expected attainment.
- Information is shared with the school community through the school website, Parent Mail, Class Dojo, displays, celebration events, newsletters, and end of year reports.

E-Safety

- A progressive e-Safety curriculum ensures that all pupils can develop skills to keep them safe online.
- Opportunities for learning about E-Safety are part of PSHRE and reinforced whenever technology is used.
- Clear rules for e-Safety are agreed by each class at the beginning of every year.
- Parents and pupils sign an acceptable user policy together when a pupil first starts at the school.
- The Westdale Promise is shared in class and across the school in assemblies and is explicitly talked about in computing 'be kind' 'be safe'.
- Our scheme of work is used to ensure progression and coverage.
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- Opportunities are taken whenever possible to reinforce messages of a healthy lifestyle and how technology can impact wellbeing.
- The school has an online safety policy in place that details how the principles of e-safety will be promoted and monitored.

Monitoring:

- The impact of the Computing curriculum is monitored regularly by the STEM Team through discussions with children, PurpleMash folders and discussion with teachers.
- Systematic monitoring of all threads of Computing informs the STEM Team and school development plan.
- The STEM Team conducts annual audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. The team also review planning coverage annually. Requests for training in Computing can be part of an individual teacher's performance management plan.

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Equal opportunities:

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- All children have the opportunity for quality-first teaching and resources may be adapted to support individual needs, including SEND.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

Resources:

- The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National curriculum.
- Each year-group has a set of IPADs which can be used at any time for group or partner work to support learning across the curriculum.
- In Key stage One the children have a dedicated computing session once a week
- The STEM Team take advice from the ICT Manager (ATOM IT) to keep up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider.
- Hardware and software faults are logged by staff members in a file kept in the staffroom.
- Old resources are disposed of in line with Nottinghamshire County Council's environmental disposal policy and the school's data protection policy where these are applicable.

Roles and responsibilities:

- The school community works together to ensure the implementation of the Computing policy.
- The STEM Team is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.
- Other Curriculum Teams are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- The STEM Team will provide an end of year report to governors on the impact of the Computing curriculum and how resources are being effectively deployed. Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school receives technical support from the ICT Manager (ATOM IT) and the technician is responsible for the maintenance of computers, printers, the school network and keeping software up to date. The STEM Team liaises with the technician to ensure that the systems are running efficiently.

Health and safety:

- The Westdale Promise is displayed in the learning environment. 'We are kind' and 'We are safe' are referred to with specific computing and online-safety examples.
- Equipment is maintained to meet agreed safety standards (e.g. PAC Testing).
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.