



Templefield Lower School

Computing Policy

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Introduction:

Computing is an integral part of the delivering the National Curriculum and a subject in its own right. In an ever changing world children need to be equipped with the skills to be able to access different technologies and use them effectively. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. Here at Templefield we believe all our children deserve to have a balanced and progressive Computing curriculum with equipment that is fit for purpose and allows children to reach their potential.

Aims:

- Provide a challenging and enjoyable Computing curriculum for all pupils, differentiated where appropriate.
- To meet the requirements of the National Curriculum programmes of study for Computing.
- To use Computing to enhance the learning in other curriculum areas.
- To adapt our teaching to meet the demands from new technology.
- To allow children to feel confident to use Computing throughout their later life.
- To understand how to use Computing safely and responsibly.

Curriculum

Aims of the National Curriculum for Computing are that 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.

Strands of Skills:

Computer Science: Solving problems and creating things for a purpose using technology.

Digital Literacy: Using technology safely and using digital tools for something useful i.e. spreadsheets

Information Technology: How technology works and how to use technology.

Although these 3 strands are defined separately it is important to note that when completing a computing task children will be incorporating skills from all 3 strands.

Early Years Foundation Stage

Children should be taught to recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. The children have regular access to laptops and iPads in their continuous provision.

Key Stage 1

Pupils should be taught to:

- 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.

Key Stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Cross-Curricular:

As stated above Computing can be taught in isolation to equip children with new skills they need, but also can be used to enhance other curriculum areas. Below are some examples of how our children use their computing skills further their learning.

English: Children can write reports, play Phonic games and read interactive e-books.

Maths: Children can play interactive games and solve problems using the interactive whiteboard.

Science: Children can go out into the environment and identify different trees by taking pictures, or getting up close and personal with some insects using our electronic magnifiers.

History: Children to research the Vikings and find out information about them for their own writing.

Geography: Children can research dinosaurs on the internet to find out which continent they would have been found on.

RE: Children can watch videos of religious celebrations to further their understanding of a religion.

PE: Children can use iPads to time their activities and seeing if they can improve their times.

D&T: Children can take pictures of their creations and print them out to evaluate later.

Art: Children can use Purple Mash the children are able to design their own seaside landscape.

How do we Assess Computing?

As with all subject areas we use Classroom Monitor to assess children's progress against KPIs (Key Performance Indicators). Children will have one of 5 outcomes for each KPI.

Unassessed: This area has not been looked at yet. As the year progresses we should see less of these.

Taught: Children have been taught this but do not have a full grasp of all aspects to be able to complete a task.

Working Towards: With support children can complete this task.

Meeting: Has met the KPI confidently.

Exceeding: The child has surpassed the KPI and is working at a higher level than expected. However, we have broken down the National Curriculum KPIs further to ensure that we have a comprehensive overview of each child's ability in all areas of Computing.

Software:

Purple Mash: This is used to allocate homework to children in relation to our topics as a 'To Do'. It is also used to deliver aspects of the Computing Curriculum e.g. coding and algorithms.

Phonics Bug: This is used to deliver Phonics sessions with the added option of allocating books for children to read from Phase 2 to Phase 6 linked to our school banding system.

Phonics Play: This is used to enhance Phonics lessons by providing ready made games for children to access to sort real and fake words. It also has Parent/ Teacher and Children areas with different resources.

Abacus: This is used to provide interactive mathematical resources for use on the interactive whiteboard and also to set differentiated homework for children to complete.

Parental Involvement:

Termly newsletters about computing and E-Safety allows parents to stay up-to-date with what their child is doing at school. Our school website has a dedicated area for E-Safety which allows parents to continuously access information. Parents are also invited to an E-Safety meeting where relevant information is shared based on their responses to questionnaires.