



COMPUTING SUBJECT POLICY

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Policy type	Curriculum
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Vision

At Marton Manor Primary School, we understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school. We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Intent

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Provide technology solutions for forging better home and school links.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Utilise computational thinking beyond the Computing curriculum.
- Give children access to a variety of hardware, software and unplugged resources.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.

Implementation

We follow the Purple Mash scheme of work. Resources for the scheme of work are online. This scheme of work is currently under review to meet the individual needs of the children and include more specific goals for Foundation Stage. Each lesson can be modified, ensuring hardware, software and e-safety implications are considered as well as ensuring the objective is tailored to be accessible and to stretch their more able students. Children in Foundation Stage and Key Stage 1 begin by using programmable robots and developing simple algorithms for everyday familiar processes. As they develop their understanding, children become more familiar with complex code and will begin to create their own programs. They increase their understanding of logical reasoning and can understand why some algorithms will not work.

Impact

Early Years:

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.
- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay.
- Pupils gain confidence, control and language skills through opportunities to 'paint' on the interactive board/devices or control remotely operated toys.

Key Stage 1

Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions. Write and test simple programs. Organise, store, manipulate and retrieve data in a range of digital formats. Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely. Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use logical reasoning to explain how a simple algorithm works 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 worldwide web; and the opportunities they offer for communication and collaboration.

TEACHING

As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

RESOURCES

All classes have access to a small set of ipads and have a weekly timetabled lesson for the class set of laptops in the secured trolleys. EYFS and KS1 also have access to programmable toys and upper KS2 have 'micobits'.

.QUALITY ASSURANCE

The Subject Leader, working in conjunction with the Headteacher and the Local Governing Body, is responsible for assuring the quality of the Computing provision across school. This is done in the following ways:

- Assessment Data Analysis: The Subject Leader collates and analyses all assessment data.
- Learning Walks: The Subject Leader carries out termly learning walks which allow them to visit each year group and take part in lessons.
- Pupil interviews: The Subject Leader carries out termly pupil interviews using the proforma in Appendix 6.
- Staff surveys: The Subject Leader will create and send out 2 staff surveys each academic year in order to gather feedback from teaching staff about the Computing provision.

IMPROVEMENT

The Subject Leader, working in conjunction with the Headteacher and the Local Governing Body, is responsible for analysing the information gathered using the methods outlined above. Once this information has been analysed at the end of the year, a Subject Action Plan will be written up in order to outline where improvements will be made.