

Computing Policy

Meir Heath Academy



Approved by: Mrs. M Southern

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Introduction

Computers have become a part of everyday life. For most of us, technology plays a vital role in our daily lives, at home and at work. Technologies are constantly changing and evolving, therefore through the teaching of computing we intend to equip children to participate in a rapidly-changing world. It is our duty, as educators, to ensure all children have access to an education in which such technologies are available and to ensure that skills are taught and practiced to a high standard, in a variety of ways. We will empower them to find, analyse, exchange and present information. Computing skills are a major factor in enabling children to be confident, creative and independent learners.

AIMS

At Meir Heath Academy we aim to enable all pupils to:

- Provide a relevant, challenging and enjoyable curriculum for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- Use computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use computing throughout their later life.
- To develop the understanding of how to use computing safely and responsibly.

TIME ALLOCATION

- Every pupil within the school will receive at least one hours teaching in computing per week.
- Pupils will have 1:1 iPads to enhance learning across the curriculum.
- Pupils throughout the whole school will have additional E-safety sessions on a half-termly basis.
- An E-safety assembly takes place once termly.

THE ROLE OF THE COMPUTING COORDINATOR

The Computing coordinator will:

- Offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of Computing.
- Maintain resources and advise staff on the use of materials and equipment.
 - To monitor classroom teaching or planning following the schools rolling programme of monitoring.
- Monitor the children's computing work and identify common misconceptions or development opportunities.
- Deliver or book CPD for all staff, where necessary.
- Have enthusiasm for computing and encourage staff to share this enthusiasm.
- Liaise with all members of staff on how to reach and improve on agreed targets.
 - Provide support to staff members as we transition through our Meir Heath digital journey.

THE ROLE OF THE CLASS TEACHER

It is the responsibility of every class teacher:

- Each week to plan and deliver the requirements of the KS1 and KS2 computing programmes of study with the use of Magpie Education.
- Set high expectations for all their pupils, including pupils with special educational needs (SEND) and gifted pupils.
- Encourage pupils to apply their knowledge, skills and understanding of computers and ICT across the curriculum.
- Tailor lesson delivery according to pupils' respective abilities

TEACHING AND LEARNING

At Meir Heath Academy we believe that there are three aspects to the teaching of computing:

1. Computer Science –the core of computing where pupils are taught how digital systems work and how to use this knowledge to program. Pupils learn the principles of computation and information.

2. Information Technology – the application of using their computer science knowledge to create programs, systems and content.

3. Digital Literacy – To use and develop their ideas through IT, use technology safely, respectfully and responsibly and understand computer networks including the internet, along with the risks involved. Working in tandem, this will enable them to become active members of the future workforce.

All of these three strands are of equal importance.

We recognise that all classes have children with widely differing computing and digital comprehension, as exposure to this technology at home can vary. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- Setting common tasks which are open-ended and can have a variety of responses.
- Setting tasks of increasing difficulty (not all children complete all tasks).
- Grouping children in mixed ability groups to encourage peers to support each other.
- Providing resources of different complexity that are matched to the ability of the child.
- Using adult support to support the work of individual children or groups of children.

The school uses Magpie Education’s Scheme of work as a basis for its curriculum planning. This scheme is further enhanced through the use of Scratch, Teach Computing and Code.org. The topics studied in Computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build

planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

EYFS

We teach Computing in reception classes as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, we relate Computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs), which underpin the curriculum planning for children aged three to five. The children have the opportunity to use iPads and the digital camera function. Then, as they gain confidence, they will start to use the iPads more frequently as a tool in the classroom.

KEY STAGE 1 PUPILS WILL BE TAUGHT TO:

- Understand what algorithms are, and how they are implemented.
- 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 ICT beyond school.
- Use technology safely and respectfully, keeping personal information private, and to identify where to go for help and support when they have concerns online.

KEY STAGE 2 PUPILS WILL BE TAUGHT TO:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems, and solving problems.
- Use sequence, selection, and repetition in programs.
- Work with variables and various forms of input and output.
- Explain how some simple algorithms work, and how they can detect and correct errors.
- Understand computer networks, how they can provide multiple services, and the opportunities they offer for communication and collaboration.

- Use search technologies, understand how results are selected and ranked, and be able to critically evaluate digital content.
- Select, use and combine a variety of software on a range of devices to design and create programs, systems and content that accomplish specific goals.
- Use technology safely, respectfully and responsibly, recognise acceptable behaviour and identify a range of ways to report online concerns.

ASSESSMENT

We believe in a broad and balanced curriculum and we assess children in the following subjects: Computing, History, Geography, Religious Education, Physical Education, Design and Technology, Art and Design, Music and Modern Foreign Language (MFL).

In Computing, we set targets at the beginning of the year and formally assess at the end of each term, using arbor. We highlight and annotate the BTSA progression document (one per class) as part of our weekly planning cycle. In order to complete this document, every lesson has an exit question directly linked to the learning objective, where pupils record a voice noted explanation. This allows us to see what they have achieved and what their next steps need to be. At the start of each lesson, all children are made aware of which 'branch' of computing they will be learning about in that lesson: E-safety, Digital Technology or Computer Science. All teachers expose children to subject specific key vocabulary, which can then be used to assess their grasp of the learning objectives. Using this paired with the exit question, provides us with insight on the children's strengths and areas of development. These progression documents then inform our termly assessment decisions on arbor. Progression documents are saved and completed electronically on Showbie and are a running document that gets passed on to the next year group. Each year group has a different colour to highlight (EYFS- pink, y1-blue, y2-green, y3-red, y4-yellow, y5-orange, y6-purple).

All produced work is marked through Showbie on the iPads and children receive feedback and opportunities to up-level their work. This works in tandem with instant feedback given during class monitoring.

MONITORING

The subject leader is responsible for monitoring the standard of the children's work and quality of teaching. The Computing subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion and discussion with teachers, an electronic portfolio (Showbie) and the use of the NAACE Self Review Framework. The Computing leader ensures that they meet all training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Each teacher records their children's learning achievements through the 'foundation assessment folder' further enhanced with Markbooks on Magpie Education.

CROSS CURRICULAR LINKS

English

ICT is a major contributor to the teaching of English. Through the development of keyboard skills and the use of iPads, children learn how to edit and revise text. They also have opportunities to develop their writing skills by communicating with people over the internet and through social media. Children also develop their speaking and listening skills through the use of presenting their work using green screen, video and stop motion technology, software and apps. They also learn how to improve the presentation of their work by using presentation and publishing software. With the introduction of ai technologies, such as Adobe firefly, children are able to see their fictional characters brought to life through simple character descriptions. This allows for a more immersive lesson.

Mathematics

Many computing activities build upon the skills of the children. Children use computing software in mathematics to collect data, make predictions, analyses result and present information graphically.

LINKS TO THE SCHOOL DEVELOPMENT PLAN

The Computing Coordinator produces an action plan each year outlining priorities for that year. An audit of resources is undertaken yearly to ensure that hardware and software are kept as up to date as possible and that obsolete or broken machines are scrapped or repaired.

PARENTAL INVOLVEMENT

Parents have access to their child's portfolios on Showbie, which the children will upload work of which they are proud. This is a great way to keep track of the child's progress and an excellent way for the children to show off their fantastic work.