Milton Primary Academy
Computing Policy

Academy Policy Adopted	Review Frequency	Next Review Date
July 2021	Every 2 years	July 2023

Subject Vision:

At Milton Primary Academy, our aim is to prepare children with the substantive and disciplinary knowledge needed to be active participants in an ever-changing digital world. We will therefore offer opportunities for them to develop the knowledge, creativity and enthusiasm to live and thrive in a world increasingly dependent on computing.

What is more, the children at Milton Primary Academy will also use the internet in a safe and respectful way, understanding the necessary precautions to take to stay safe and know where to seek help. They will utilise computing efficiently to enhance their learning in all subjects, and as proficient computer scientists, they will have the opportunity to write and debug codes successfully and do this with confidence, before programming them into the different systems, software and devices they are using.

Overall, children at Milton Primary Academy will become digitally literate – able to use a range of media, express themselves and develop ideas through information technology; they will be prepared to become active, responsible citizens in a digital world. They will also be able to make links between different areas of computing and between computing and the wider world.

Principles of Outstanding Computing:

These are the 'Principles of Outstanding' computing at Milton Primary Academy. They were devised and agreed by the children and staff in January 2020, informed by the way we feel that computing should be taught across the Academy.

Principle 1: Children are **excited and enthusiastic** about computing, as they are taught to **know more and remember more.**

Principle 2: Lessons are **carefully planned and delivered,** so that new material is delivered in a way that is **clear, interesting and useful.**

Principle 3: Instruction is focused on the learning intention and **pedagogical tools** do not detract from **the knowledge that needs to be remembered.**

Principle 4: Through spaced-retrieval, previously taught content is revisited to ensure that **new content** can be understand and is retained in the **long-term memory.**

Principle 5: Formative assessment is regularly used to check that children retain **knowledge** and that they can retrieve previously taught content from their long-term memory.

Principle 6: Teachers enable children to access **a range of enrichment opportunities,** both within and beyond the curriculum.

Computing Curriculum:

At Milton Primary Academy, we aim to provide a computing curriculum that is creative, inclusive, challenging and inspired by the real-world. We follow the curriculum created by the Nation Centre for Computing Education (NCCE), which is funded by the Department for Education. Our curriculum is enriched through the use of high-quality resources (provided by the NCCE to match their curriculum), programmes and software. Our computing curriculum and the lessons we teach inspire future thinkers, innovators and problem solvers in an immersive environment that stimulates curiosity and supports high-quality learning, allowing each and every learner to fulfil their potential.

The computing areas of study are set out in the Foundation Stage Curriculum and National Curriculum 2014.

EYFS:

In the Early Years Foundation Stage, we teach Computing through the Understanding the World strand of the Early Years Framework and through completing activities that are linked to 'Education for a Connected World' Framework. Ongoing experiences and opportunities linking to children's developing understanding of the world are planned from the objectives set out in the Early Years Framework, which underpin the curriculum planning for children aged 3-5 at Milton Primary Academy.

The experiences that we provide ensure that children develop a secure understanding of the world around them, and by the end of the reception year, children will have developed an awareness and understanding of the technologically diverse world around them.

KS1 and KS2:

The Primary 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 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.

With this in mind, our programme of study for computing clearly sets out what will be taught and learned at each point in the year for all year groups.

Special Educational Needs

Through the equal opportunities policy, pupils with special educational needs will be included in all computing lessons. Staff, where appropriate, will modify activities to ensure children with special educational needs access the same computing curriculum as their peers.

Assessment

Formative Assessment (AfL): During the teaching of each National Curriculum objective, teachers will formatively assess the work produced by the children and this help them to monitor and plan for

progression. During lessons, children will also be given live verbal feedback to inform them of their progress and this provides an opportunity for teachers to address any misconceptions or errors the children may encounter.

Summative Assessment: At the end of each project, teachers also make a summative judgement relating to the children's knowledge and understanding of the content taught, in line with the objectives set out in the National Curriculum. Children may be asked to complete a short summative assessment which will include questions based on the unit of work they have recently completed. This information is then recorded on an online database, allowing our academy leaders to track and monitor the progress and attainment of individuals as they make their way through the school.

Enrichment

Enrichment activities are carefully planned to enhance the computing curriculum, giving pupils the opportunity to broaden their experience and take part in computing. Frequently, teachers at Milton Primary will often use information technology in a wide variety of lessons, providing our children with more opportunities to practise and apply their knowledge of computing in a variety of different domains.

Monitoring

Computing is monitored in a number of different ways. All subject leaders at Milton Primary are given time throughout the year to monitor, in depth, the different areas of their subject. One of the main areas of monitoring is pupil interviews. Giving pupils a voice in how each subject is taught is a valuable way of understanding their likes and dislikes and ways to improve the computing curriculum.

Lesson observations and book looks play important roles in providing valuable feedback about the quality of teaching and learning happening across the academy. This provides an opportunity for the computing leader to evaluate the quality of education in a given subject area and identify priority areas for development, which subsequently informs subsequent investment in CPD.

Health and Safety

In all areas of computing, health and safety guidelines will be strictly adhered to in order to promote safe practice, as set out in the 'E-Safety Policy' and academy's 'Health and Safety Policy'. A copy of these documents is kept in the computing subject leader file and accessible online.