CURRICULUM STATEMENT: Computing

Our Curriculum Intent for Computing

The Key Characteristics that we have identified, and that we believe, will make a GOOD CODER and USER OF INFORMATION TECHNOLOGY are:

- The ability to code competently for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data and digital content effectively, and to communicate findings.
- Perseverance when faced with challenges, including detecting errors and working purposely with others to overcome them.

We believe that Computing prepares pupils to participate in a rapidly changing world in which work, and other activities, are increasingly being transformed by technology. With this in mind, we encourage children to develop computational thinking, and so are better able to conceptualise, to understand and use computer-based technology for their future.

Computing is a practical subject, in which invention and resourcefulness are encouraged. At Mountfields Lodge, Computing skills enable our pupils to find, explore, create, analyse, exchange and present information responsibly, creatively and with discrimination.

Using Computing to support problem solving and enrich learning across the curriculum, ensures our children grow up prepared for a technological age.

Our Curriculum Implementation for Computing:

At Mountfields Lodge School, we use the National Curriculum for Computing as the basis for our teaching, although this is enhanced by additional content. A creative approach to combining the teaching of skills, projects linked to themes, and pupil-driven learning is used to encourage confidence, creativity and independence in Computing. This ensures that all pupils are equipped with Computing skills (appropriate to their age group), which they can apply across the curriculum, can use computational thinking and are also digitally literate.

Prior attainment is acknowledged and prior learning accessed so that future learning is based on knowledge and understanding that is secure and established.

Our approach to teaching Computing in the Early Years Foundation Stage is based upon children recognising the range of technology that is used at school, home and our local environment. The 7 Early Learning Goals, which summarise the knowledge, skills and understanding that all young children should have gained by the end of the Reception year, are the bedrock of our National Curriculum planning in Year 1 and beyond. Computational thinking is encouraged and they experience the necessary problem-solving skills needed for everyday life. Technology provides opportunities to enhance and extend their learning, and chances to explore, observe and find out

about people, places and the environment. They learn to select and use technology for particular purposes, sometimes in guided learning and sometimes in role play situations mimicking real life.

Using technology safely and respectfully is a key principle of our teaching and learning in Computing. Pupils are taught to use technology responsibly, to know what to do when they encounter concerns, and to consider their online actions.

Our expectations for Teaching and Learning are:

- A progression map for Computing (based on the NC Programme of study), which shows a clear progression of 'matters, skills and processes', is covered in each key stage. Attention is given to what pupils have already experienced, and subsequent steps in learning planned.
- Computing skills and processes are taught in a Computer Suite, through apps using ipads, and using a variety of technology and peripherals.
- Application of skills and processes, and opportunities for computational thinking, are linked to themes and across the curriculum, where appropriate.
- Teachers should find ways of contextualising Computing and helping pupils relate this to real world situations.
- Pupils should be encouraged to apply skills independently in order to demonstrate and use computational thinking. They should be given opportunities to express themselves and develop their ideas through information and communication technology.
- Pupils are taught in mixed ability, and sometimes mixed-age group classes. However, those pupils identified with a higher learning potential should be challenged further and children who find aspects of their learning more difficult should be appropriately supported to experience success.
- Pupils who have a lack of access to technology at home should be considered when planning the Computing curriculum.

The school is committed to resourcing the Computing Curriculum in terms of technology, applications and connectivity. All digital devices throughout school are linked to both the school's network and to the Internet. This provides an accessible system, which is well protected via an efficient firewall, constantly updated anti-virus software, and a management system. All classes have an interactive whiteboard linked to the school's network and to the Internet, and pupils regularly use the Computer Suite and the school's iPads.

Through a whole school programme for PSHE ('Jigsaw') and e-safety lessons, quality teaching and learning of digital literacy promotes an understanding of the pupils' rights and responsibilities. It teaches the principles of positive relationships online, addressing online safety and appropriate behaviour in a way that is relevant to pupils' lives.

The whole school gets involved in Safer Internet Day each year. This inspires children to think and behave respectfully, critically and creatively online, whilst promoting the safe, responsible and positive use of digital technology.

Events and visits also provide opportunities to enrich and develop the children's learning, particularly regarding keeping themselves safe both on and offline when using technology. Visits, such as the annual Year 6 visit to The Warning Zone, allows pupils opportunities to develop their independence as learners and their sense of responsibility as future digital citizens.

In KS1 and KS2, pupils are given access to Seesaw, an education platform, that is used to deliver engaging digital content, including teaching videos. Pupils use creative digital tools to respond and capture their learning in an online journal. Pupils are also given the opportunity to use digital skills independently at home through Seesaw, which is used for accessing, creating and presenting their homework. Parents are given the opportunity to connect with their child's journal.

In the Early Years Foundation Stage, Tapestry, an interactive online learning journal, is used to share children's learning and experiences with parents.

The promotion of digital literacy is also shared with parents annually through leaflets, booklets and the school website.

Our Curriculum Impact for Computing:

In *Computing* we:

- **Share the Curriculum 'Learning Journey'** – *do the pupils know what they are doing and why they are doing it and where it 'fits in'?*
- **Check previous knowledge/understanding/skills** – *what can the pupils remember from previous learning? Is the learning embedded?*
- **Check new knowledge/understanding/skills** – *have the pupils retained the objective of the lesson?*
- **Use 'the checks' to adjust teaching and learning** and improve outcomes.

We believe that if our assessment is regular, consistent and focused in *History* it will be relevant and impactful.

Our 3 agreed approaches to assessment are

1) At the Planning Stage

Teachers refer to the Progression Map for Computing and consider not only the current year group expectations but also make themselves fully aware of previous learning and the expectations of what comes next.

Prior learning is assessed at the start of a new unit or work i.e. 'Do you remember in Year ? when you did/learned about/found out about?' We do this to remind our pupils of what they have already been taught/have learnt and how it fits in to previous (and possibly future) learning/knowledge and skills acquisition.

2) The Learning Journey

Teachers share The Learning Journey for each unit of work; this includes questions that are to be answered throughout the unit of work with unit-specific vocabulary that must be used/taught and the Core Learning expectations. It is referred to at the start and end of each lesson to make sure the questions are answered and the vocabulary is embedded.

3) Photo Books

Each class has a Photo Book; it is used to 'capture the active learning' that the pupils have undertaken'.

We know that our pupils are more able to recall previous learning when they have a photo/picture/artefact prompt - a class photobook enables that. The Photo Book is referred to in class to bring prior learning to the fore, i.e. ‘Do you remember when…?’

Our 3 agreed assessment tools in Computing are:

A) Flashcards:

We use these to engage ‘active recall’ through securing memory connections.

We believe that comparing recalled answers with correct /given answers, strengthens self-reflection (or metacognition).

B) Quizzes

These are short and focused; they can be online, self-quizzes, group quizzes or class ‘team’ quizzes. They are ‘low stake’ i.e. they are not considered to be the ‘be all and end all’ of assessment; there is no scoring, marking, recording or ranking of classmates etc.

We believe that frequent no- or low-stakes - quizzes help cement long-term learning as they require pupils to bring previously acquired information to mind. By retrieving information, they organise it and create cues and connections. We believe that quizzing enables pupils to interact with the learning content; to think, dig deep and be an active participant.

C) Exit Tickets

These are used at the end of a teaching and learning session; again they are ‘low stake’. Questions are posed to each individual on ‘exit’ from the lesson, or random individuals are selected, or table groups are questioned etc. We use these to consolidate, embed and check understanding; ‘tickets’ can be based on ‘current’/recent learning OR can reference prior but linked learning.

Marking and Feedback of our pupils’ learning also enables us to provide effective feedback to pupils on their learning performance. We can give recognition and appropriate praise for achievement. It helps us identify effective strategies and ‘next steps’ for improvement; it helps inform future planning.