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Chair of Governors:	**Mr Tim Wicks**
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INTENT:

At Dropmore Infant School our aim is to provide a high-quality computing education which is fully inclusive and accessible to every child. We aim to equip the children to become digitally literate in order to participate in the rapidly changing world where work and leisure are increasingly transformed by technology.

Our computing curriculum is broad and balanced, links to learning in other subject areas and is underpinned by the National Curriculum and planned to reflect and promote diversity and equality. Our teaching allows the children to gain secure knowledge and skills which will develop a positive 'can do' attitude to computing and support them to develop ideas, express themselves, solve problems and become computational thinkers. Computing skills allow children to become confident, creative and inquisitive learners who are able to be critical and challenge themselves.

Our aim is to build the foundations of the computing skills through EYFS to the end of KS1 to a suitable level for preparation for KS2. We believe there are some non-negotiable digital skills our pupils should possess:
• All pupils must understand online safety and know where to go for help
• All pupils must be able to logon and logoff to a secure network
• All pupils must have basic mouse, keyboard and touchscreen skills
• All pupils must have a basic understanding of coding
• All pupils must have basic word processing skills
• All pupils must be taught the concept of archiving and have their own digital portfolio

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. At Dropmore Infant School we want our pupils to become responsible, competent, confident and creative users of technology, to enable them to actively and safely participate in a fast-changing digital world. We aim to give pupils high quality, enjoyable and memorable learning experiences through access to a range of digital and electronic software and hardware. We have high ambitions for all pupils, including those with SEND, EAL and those from a disadvantaged background.

IMPLEMENTATION:

Computing is taught through meaningful cross-curricular links and as a discreet subject. Staff will use a range of teaching styles in teaching computing (whole class, small groups and individual support).

We recognise that all classes have children with widely differing ICT abilities. Where possible, pupils will be encouraged to train and assist their peers. We provide suitable learning opportunities for all children by matching the task to the ability and experience of the child. Progression in computing is achieved in a variety of ways:
• by moving from a simple to a more complex task
• by moving from a familiar problem to an unfamiliar problem
• by applying more advanced skills
• by becoming more independent and confident
• by using more sophisticated software

e-Safety
At the forefront of teaching computing at Dropmore Infant School is Online Safety, focussing on how technology can be used safely and purposefully.

Within EYFS class discussions, the children will carefully consider how to use the technological equipment safely following our school rules and what they should do if they come across something they don't like.

Across Key Stage 1 Online Safety is explicitly taught in both classes and planned to develop resilience. We want to teach children to manage risks safely when using technology and know who they can talk to if they are concerned or upset when using it. We discuss issues such as: keeping personal information private, trusting people and sources online, treating others online as we would in real life, posting images online and what to do if anything makes them feel uncomfortable.

Computing Curriculum:

Our Computing curriculum map has been developed to ensure coverage and progression across reception, Year 1 and Year 2, based on the content outlined in the Early Years Framework and the National Curriculum, comprising of 3 parts: Digital Literacy, Information Technology and Computer Science. The knowledge and skills are taught progressively, allowing the children to embed their learning over time.

In **Computer Science** the children explore algorithms and sequencing of instructions. They read, follow and create simple programs and correct mistakes. They use logical thinking to make predictions when using technology. At Dropmore Infant School we introduce Computer Science through different contexts. We begin with using precise verbal instructions (algorithms) to direct a friend. We then move on to using the Beebots and progress to programming applications (eg. Scratch Jr).

Digital Literacy involves recognising common uses of information technology beyond school and how to stay safe online. The children learn about numerous methods of online communication. They explore their own use of the internet and why it is important to stick to the rules.

Information Technology involves using technology purposefully as a tool for learning. Our children use the internet to search for information, use a mouse to navigate, use a keyboard to type text, make modifications to their work, including changing font, size and colour, and save and retrieve their work. They understand how data is presented and managed on computers.

Our medium-term plans have been carefully developed to set out the learning objectives for each lesson, identifying the resources to be used. Through the use of careful modelling, skilful guidance, clear expectations and scaffolding of learning the children will become successful, competent digital citizens working collaboratively as well as independently to create digital content and use technological equipment safely.

In the **Foundation Stage**, our young digital citizens develop a greater Understanding of the World by recognising a range of technology that is used in their homes and school. Through practical and engaging activities, sometimes involving technology such as iPads, PCs, cameras, microphones, Beebots and mechanical toys, which children can access alongside adults or independently with peers, children will begin to speculate on why things happen or how things work, engage in logical thinking and interact with age appropriate computer software.

Throughout Key Stage 1, the children's use of digital technologies continues through the use of iPads, laptops and programmable toys. In Year 1, the children begin to understand what algorithms are, how they are implemented as programs and that programs execute by following precise and unambiguous instructions. They will begin to create, organise, store, manipulate and retrieve digital content. Using the iPads, the children will explore how they can use technology beyond school. In Year 2, the children will become computer programmers through the use of simple on-screen programming software, implementing algorithms, learning to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They will enhance their ability to create, organise, store, manipulate and retrieve digital content.

Responsibilities:

The computing subject coordinator is responsible for the development of the long term and medium term plans for computing, ensuring the National Curriculum objectives are clearly identified, along with appropriate progression and opportunities for assessment. Individual lesson plans are developed in partnership with the class teacher.

The subject leader is also responsible for supporting colleagues in the teaching of computing, providing a strategic direction, being informed about current developments and planning future programmes of work and staff INSET sessions.

The class teacher is responsible for the delivery of the individual lesson plan, developed and discussed with the subject leader. When planning, the teacher should consider whether pupils are:
⇒ developing computing skills, knowledge and understanding (discrete computing);
⇒ using computing to enrich and extend their understanding of another subject (e.g. using the internet to research a topic in History);
⇒ developing or using their existing computing skills whilst working in a different subject context (e.g. word processing skills when working on a Geography project);
⇒ developing or using their coding skills (e.g. using Beebots);
⇒ using technology safely and respectfully.

IMPACT:

Through the implementation of this robust computing curriculum our children will be equipped with the skills and knowledge necessary to use technology effectively and safely. They will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident using a range of hardware and software and will produce high-quality purposeful products. They are willing to take risks and learn from their mistakes, showing both perseverance and resilience in all aspects of computing. They will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives.

Assessment, Recording and Reporting

We use a variety of methods to assess the skills and understanding of our children. Activities are differentiated to suit different abilities and learning styles. Our computing lessons allow for collaborative learning, encouraging children to talk in pairs, small groups or through whole class discussions to share learning. Evidence of children's computer-based work in each unit is saved in the child's portfolio (personalised network folder). Staff have access to these folders for assessment and monitoring purposes.

At the end of a computing unit we assess the children against the skills progression grid to identify the children that are working below, at or above age-related expectations. This will inform future planning, support and challenge.

The subject leader is responsible for monitoring the standard of children's work and the quality of teaching in line with the school's monitoring cycle. This may be trough lesson observation and/or work scrutiny.

Progress and attainment in computing will be reported to parents once a year, in the End of Year Report.

Resources

The school acknowledges the need to continually maintain, update and develop its resources. Teachers are reminded to log any faults with the Computing coordinator.

We have a robust IT infrastructure consisting of a networked server solution with wireless access throughout the school. We have a high-speed broadband solution giving reliable access to online resources with Securly cloud web filtering. We use Microsoft 365.

There is a wide range of software suitable for young children, which aims to develop a broad range of computing skills and to support learning in other areas of the curriculum. Children are also given opportunities to use various forms of hardware to support learning, such as digital cameras, sound recorders and programmable toys.

Each classroom is fitted with an interactive Alpha Panel for use during lessons. In addition to this we have a mobile trolley with 15 laptops and an additional 10 laptops, as well as a mobile trolley with 15 iPads. An additional desktop computer is available in the library and an additional laptop is available in the hall. All members of teaching staff have a school laptop. Additional IT resources are found in the server cupboard in the staffroom.

The school has contracted TurnITOn to provide technical support. A TurnITOn technician will visit the school for half a day each month.

Equality Impact Assessment:

At Dropmore Infant School our aim is to provide a high-quality computing education which is fully inclusive and both suitable and accessible to every child irrespective of special educational or medical needs or protected characteristics. We aim to equip all children to become digitally literate in order to participate in the rapidly changing world where work and leisure are increasingly transformed by technology.