Gorse Hill Primary School

Computing Policy

Reviewed Curriculum	Every 2 Years
Adopted on	Oct 2022
Signed	
Responsible Person	Computing Leads: Rebecca Harrison-Johnson Rhiannon Tahanci

Introduction

At Gorse Hill Primary School, we pride ourselves on equipping our pupils for a rapidly changing world. To develop computational thinking. We value every learner's contribution and appreciate the skills they already bring into lessons. We aim to support all and provide equality of opportunity for all our school family regardless of disability, religion, sexual orientation, culture, gender, ethnic origin, colour or age. All pupils have regular access to the ICT curriculum.

The National curriculum strands of computer science, digital literacy, and IT are embedded in our learning experiences. We aim to make them as relevant and stimulating as possible Teaching should equip our children with the skills to thrive and succeed. To code, to program, to communicate and to research. Online safety is at the heart of all our practise. Educating and enabling all to benefit in security and wellbeing establishing lifelong positive habits.

Intent

The school has identified the need to ensure all learners in the community of Gorse Hill Primary School have access to the computing curriculum. The computing subject leaders and the Head Teacher will have an on-going responsibility to keep the school at the forefront of modern technology and innovations through a yearly cycle of planning and review.

We intend to harness all our pupils from Early Years to Year 6, natural enthusiasm and in many cases personal experiences of computing and use it for successful learning outcomes through computer science, digital literacy and IT. We also intend to keep our children safe with effective online safety practices and embed lifelong security habits.

We aim to introduce pupils to a wide range of technology including laptops, iPads and interactive whiteboards allowing them to continually practice and improve the skills they learn. Thereby promoting digital literacy to express themselves and develop their own creativity through information and computer technology to prepare for real life experiences.

We aim for learning challenges which can:
- Develop computer science including logic, algorithms and data representation.
- Debug and analyse problems in computational terms and have opportunities to write computer programs.
- Communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.
- Meet the requirements of the Foundation Stage Curriculum and National Curriculum
- Ensure children, parents, staff, governors will have relevant and meaningful experiences of computing
- Ensure children have a growing awareness of how computing is used in the world around them and of the benefits that it provides
- Ensure computing is used to support problem solving and learning across the curriculum
- Provide an innovative use of resources.

Implementation

The National Curriculum purpose of study states:

"The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building to the knowledge and understanding, pupils are equipped to use information technology to create programs, systems, and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology at a level suitable for the further workplace and as active participants in a digital world."

Therefore, the Kapow scheme of work which Gorse Hill Primary has implemented is designed with three strands which run throughout:

- Computer Science
- Information Technology
- Digital Literacy

The National Curriculum mapping document through Kapow shows which of the units will be covered alongside the national curriculum attainment targets as well as each of the three strands.
The progression of skill document shows the skills that are taught within each year group and how these skills will develop across the year on year to ensure attainment targets are securely met by the end of each key stage.

Through the scheme of work, it is organized into 5 key areas creating a cyclical route through which pupils can develop their computer knowledge and skills by revisiting and building on previous learning:

- Computer systems and networks
- Programming
- Creating media
- Data handling
- Online safety

Implementing the Kapow primary computing scheme of work ensures a broad and balanced coverage of the national curriculum requirements and through the skills show case units it provides the pupils the opportunity to learn and apply the transferable skills. Embedded through the teaching of the units there are meaningful cross curricular links such as science art and music which has continued to develop the pupil's transferable skills and further development.

Computing lessons incorporate a range of teaching strategies from independent, paired and group tasks as well as unplugged and digital activities. This variety of lessons ensures that the lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is also available for each of our computing lessons which will ensure all pupils are stretched to reach their maximum potential. Knowledge Organisers are provided for each unit which will support and build on pupil's foundation of factual knowledge and encourage recall of key facts and vocabulary.

In Gorse Hill we have specialist teacher available for teaching much of the computing who is timetabled throughout the key stages and has strong subject knowledge. To ensure all staff at Gorse Hill are able to deliver a high effective and robust computing curriculum and support CPD, each unit is accompanied by through easy to follow teacher tutorial videos which will develop subject knowledge for staff. Each class has a specific timetable slot which and the use of a laptop trolley where children can login into their own shared drive.

We will actively develop links with other schools and provide opportunities for children to access a wider range of resources in collaboration with other expert teachers to help develop a genuine interest in wider applications of computing that might not be included in the core curriculum e.g. join Trafford Online Safety Ambassadors; take a small group of children to learn how to make robots with Crumbles and film making skills through Trafford Computing Network.

Impact

Through using the Kapow scheme of work we aim to instil a sense of enjoyment around using technology and to develop pupil's appreciation of its capabilities and the opportunities technology can offers to create, manage, organise and collaborate. Tinkering with software and programs forms a part of the ethos of the scheme as we want to develop pupil's confidence when encountering new technology, which is a vital skill in the ever evolving and changing landscape of technology. Through our curriculum we intend for pupils not only be digitally competent and have a range of transferable skills at a suitable level for the future workplace, but also be a responsible online citizen. Through the scheme of work, we will ensure that pupils will meet the end of key stage attainment targets outlined in the National Curriculum.

Children will have opportunities to develop a genuine interest in the wider applications of computing and be able to develop skills to a good level.

Monitoring and Evaluation

Monitoring computing will enable the coordinator to gain an overview of computing teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development
In monitoring of the quality of computing teaching and learning the coordinator will:
- Scrutinise plans to ensure full coverage of the ICT curriculum requirements
- Analyse children's work
- Observe ICT teaching and learning in the classroom
- Hold discussions with teachers
- Analyse assessment data
- Audit and maintain resources (software and hardware audit)
- Attend regular training TTSA network meetings– sharing good practise
- Have a named Governors with responsibility for Computing - governors liaise with the subject leaders and monitor closely the way the school teaches Computing.

Organisation

The school believes that progress in computing is promoted through regular access and use of technology relevant to a task:

- ➢ The predominant mode of working in computing is as individuals or in small groups
- ➢ New skills may be introduced to a group of pupils
- ➢ Practice of skills will occur discretely while using computing to support work across the curriculum

Resources

We will ensure:

- ➢ Resources are purchased and deployed effectively to meet the requirements of the Foundation Stage Curriculum and National Curriculum
- ➢ An ICT asset register is maintained
- ➢ Updates and additional resources will be purchased as needed following research into costs and future proofing for 3-5 years, where possible

Staff Training

The Computing Leads will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator when they need more support. Staff should also access and utilize built-in training videos and support from Kapow.

Early years

We believe that provision in early years should reflect the need for children to make a good start in developing their computing skills and knowledge. It should also be used to assist them in achieving their other Early Learning Goals. We will continue to enhance and provide provision for experiences in computing indoors, outdoors and through role play in both child-initiated and teacher directed time.

Inclusion

The school will ensure:

- ➢ Children's individual needs will be addressed through provision of resources, learning styles and questioning;
- ➢ Positive use of technology will be promoted by all.

Equal opportunities

The school must ensure that there are equal opportunities for all. All learners must have the opportunity to develop their computing capability.

Roles and responsibilities

The leadership team will have a direct role in the development of computing. Governors will be involved through the Monitoring and Evaluation Procedure. The school recognises that staff will not have the time or the expertise to resolve technical problems when and as they occur. Therefore, the school will continue to employ technician time to provide a cost-effective and efficient method of maintaining all computing provision.

Health and safety

Health and safety requirements will be met in the school setting in accordance with existing school policy.

➤ Age-appropriate class and safety rules will be displayed in the learning environment
➤ Equipment will be maintained to the meet agreed safety standards
➤ Use of technology will take into account any new research or advice from the Health Protection Agency, including the use of wireless technology
➤ Pupils will be shielded from inappropriate material on the Internet and e-mail by means of the filtered router provided by Trafford Local Authority and the schools own firewall

Security

Computing equipment and online activities have the potential to present many possible risks to the school and children's safety.

➤ All computing equipment will be security marked and noted in the school inventory
➤ Any equipment taken off site should be authorised by the Computing Lead and signed out
➤ The employed technicians, in conjunction with the Computing Lead, will be responsible for regularly updating anti-virus software
➤ No discs or memory devices from outside school should be allowed in machines without first being checked for viruses and permission granted from the Computing Leads or technicians
➤ Use of computing will be strictly in line with the school's 'Acceptable Use Policy'
➤ Parents will be made aware of the 'Acceptable Use policy' for their children to use computers, the Internet and e-mail in school and will sign agreement in school planners each year.
➤ All pupils and parents will be aware of the School Rules for Responsible Use of computing equipment and the Internet and will understand the consequence of any misuse. Key Stage 2 children will be asked to sign a commitment to keeping the rules
➤ The agreed rules for Safe and Responsible Use of ICT and the Internet will be displayed in all classrooms and will be addressed and reinforced in online safety lessons as part of the Computing curriculum.

After Hours and Community Use

The school can provide its computing resources for the use of the community. The school will work first to ensure the safety of all children at the school, in-line with its appropriate safeguarding policies. The school will supervise and safeguard children and computing equipment as deemed necessary, and in accordance with the letting policy.