Computing Policy

Contents

1) Intent

i) Subject statement

The 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

ii) Purpose

The purpose of Computing is to equip pupils with the ability to use computational thinking (formulating a problem and solving it in a way understood by both people and computers) and creativity to understand and change the world. At its core, computing is about the principles of information, how digital systems work and programming. Computing should ensure that pupils become digitally literate: able to use technology; and express themselves

and develop their ideas through technology– at a level suitable for the future workplace and as active participants in a digital world.

i) Aims

At Intake Farm we aim to teach children to be computer literate - to have the confidence and skill set required to use a vast range of technology for a variety of purposes, focusing on skills they may require for everyday technology and generic workplace technology. During computing, pupils will learn the skills required to locate, analyse, exchange and present information and ideas responsibly and creatively. Pupils will also learn about e-safety and 'netiquette' (rules for appropriate behaviour online).

Computing is most often linked to STEM subjects (Science, Maths, Design and technology), however it is increasingly being used by the Arts (Music, Art, Drama, Writing, Journalism, Media) and it is our responsibility to provide children with examples of all possible applications. This means that computing skills and learning should be included within other subjects as it is naturally cross-curricular.

2) Implementation

i) Teaching and Learning

Teachers create positive attitudes to Computing within their classroom and reinforce the expectation that all students are capable of achieving. Our whole school approach to the teaching and learning of Computing involves:

- Structuring lessons and planning time for children to explore programs independently in order to develop Computational thinking and reasoning skills, problem solving skills, and digital confidence.
- Enabling children to share their expertise, discoveries and reasoning using appropriate terminology and celebrating their learning.
- Building on skills and knowledge from previous years.
- Modelling and demonstrating the skills required for tasks.
- Using technology in other subject areas to reinforce digital literacy skills in a variety of ways.

Planning

Foundation curriculum planning follows the statutory framework for EYFS for Understanding the World: technology. Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals through experiences using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time. The Foundation Stage teachers use a Continuous provision map to plan for technology in a range of contexts.

Key Stage 1 and 2 planning is linked to the objectives and aims described in the National Curriculum (2014) Computing Programmes of Study. Year Overview plans for each year

group should detail the areas or topics covered during each term for computing and detailed plans should be in place for each area/topic.

A document detailing lesson objectives, terminology and success criteria and linking these to statutory curricular objectives has been created and distributed, detailing how teaching and learning in Computing should progress from year group to year group. These objectives have been split into: practical skills (everyday skills such as turning a computer on, word processing and coding), the internet (where children develop research skills) and e-safety. This document can also be used by teachers to assist with assessing children's achievement and progress in Computing.

Intake Farm Primary and Nursery School has access to PurpleMash (2Simple) which includes a scheme of work for year groups 1 to 6 that is designed around the National Curriculum Objectives and links to software and other resources available on PurpleMash. This scheme of work is to be used by teachers to support planning however it has a built-in flexibility so that teachers can also use their own creativity to plan lessons that address a class' need(s) or to support learning in other areas of the curriculum. With this in mind, it is noted that some classes may need to revisit earlier year group schemes in order to develop the skills required by later lessons. Teachers should pass this information on to the class' next teacher at the end of the year.

All classes have a timetabled computing slot as well as the opportunity to timetable in others. Whereas practical skills and e-safety are taught discretely during those sessions, objectives included in 'the internet' section are often taught cross-curricularly as well as discretely.

Online Safety

Our progressive e-safety objectives ensure that all pupils are able to develop skills to keep them safe online. Opportunities for learning about online safety are created and reinforced regularly. The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.

Opportunities are taken whenever possible to reinforce messages of a healthy life style. The school has an online safety policy in place that details how the principles of online safety will be promoted and monitored. All children are taught the SMART e-safety rules. Parents are regularly reminded of issues regarding e-safety and internet usage and provided with advice on keeping children safe online.

ii) Progression of Skills

Our Computing Progression of skills document (See appendix 1) follows objectives taken from the National Curriculum and also includes the basic skills required for digital literacy, such as typing and mouse skills.

3) Impact

i) Assessment

Formative assessment is used by the class teacher during computing sessions. Children's confidence and difficulties are observed and used to inform future planning. Progress is used to inform school reports.

PurpleMash has a built in assessment system for the computing activities and programs it provides. All computing activities (To Dos) include hints that can be accessed by the children completing the activity and support them in doing so. The PurpleMash system keeps track of the number of hints used within an activity and uses this to generate a score. The class scores for an activity are stored online and can be downloaded as a Microsoft Excel document, which can be used by the teacher for assessment purposes. The activities completed by the children are also often saved on the PurpleMash system and can be accessed by the teacher and assessed based on desired criteria.

ii) Monitoring

The impact of the Computing curriculum is monitored termly by the Computing subject co-ordinator through pupil discussion, samples of work and discussion with teachers, an electronic portfolio and use of Purple Mash Assessment tools. Systematic monitoring of all threads of Computing informs the subject co-ordinator and school development plan. The Computing co-ordinator conducts regular audits of the Computing training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Teachers can also initiate this conversation and request in-house training from the Computing co-ordinator. Regular audits of Computing resources are undertaken to identify areas requiring updating/replacing.

4) Equal opportunities and Inclusion

Computers and related technology are made available to all pupils regardless of gender, race or abilities. The class teacher differentiates work by task, resource or support, to ensure the individual needs of abler and SEN pupils are met. The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National curriculum. The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider.

Hardware and software faults are logged by the class teacher in a book kept in the office. Old resources are disposed of in line with all applicable policies and procedures.

5) Health and Safety

Equipment is maintained to meet agreed safety standards. From Foundation Stage onwards, pupils are taught to respect and care for technology equipment. Children are supervised to ensure correct usage occurs. Protection software is on all computers to prevent children accessing unsuitable material and to safeguard hardware systems.
Further guidance can be found in the school's health and safety policy.

6) Software Licensing

Software licensing is to be adhered to at all times. Under no circumstances must software copyright laws be broken. As such, no software from school is to be reiterated or copied. The computing co-ordinator will check licensing laws for validation and make staff aware of software usability. Memory sticks from outside locations are prohibited from being used unless the staff member owning the device has completed a virus check.

7) Role of the Subject Leader

It is the role of the subject leader to monitor the standards of children's work. They are also responsible for supporting their colleagues in their teaching and own subject knowledge, for being informed about current developments in the subject, and for providing a strategic direction for Computing within the school. They monitor the budget and resources to support learning. The subject leader has allocated time for fulfilling monitoring tasks and liaising with subject leaders from other schools.

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