Thorntree Primary School

Computing Policy

November 2019

Contents

1. Purpose

This policy reflects the school values and philosophy in relation to the teaching and learning of and with computing. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. The policy should be read in conjunction with other key Policies such as 'Safeguarding and Child protection policy' 'GDPR policy' and 'Website and Management Policy'.

This document is intended for

- All teaching staff
- All staff with classroom responsibilities
- School governors
- Parents
- Inspection teams

Copies are of this policy are kept centrally and are available from the Head Teacher and the subject leader.

2. Intent

At Thorntree Primary School, our curriculum will give the children the opportunity to develop a rich and deep subject knowledge through the enjoyment, experience and challenge of learning. They will understand the value of their learning and see how it is relevant to their future.

Within the computing curriculum, it is our aim is to prepare our pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. We recognise that computing is an important tool in both the society we live in and in the process of teaching and learning. Pupils use different tools to find, explore, analyse, exchange and present information responsibly and creatively. They learn how to employ computing to enable rapid access to ideas and experiences from a wide range of sources.

Our vision is that when a child leaves Thorntree Primary, they will know how to be responsible, competent, confident and creative users of information and communication technology. They will be able to understand and apply the essential principles and concepts of Computer Science, evaluate and apply information technology analytically to solve problems and communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

3. Aims

- To enable children to become autonomous, independent users of computing, gaining confidence and enjoyment from their activities
- To develop a whole school approach to computing ensuring continuity and progression in all strands of the computing National Curriculum
- To use computing as a tool to support teaching, learning and management across all areas of the curriculum
- To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum.
- To ensure IT is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities
- To maximise the use of computing in developing and maintaining links between other schools, the local community including parents and other agencies.

4. Objectives

In order to fulfil the above aims it is necessary for us to ensure:

- a continuity of experience throughout the school both within and among year groups
- the systematic progression through key stages 1 & 2
- that the National Curriculum programmes of study and their associated strands, level descriptions and attainment target are given appropriate coverage
- that all children have access to a range of ICT resources
- that computing experiences are focussed to enhance learning
- that cross curricular links are exploited where appropriate
- that children's experiences are monitored and evaluated
- that resources are used to their full extent
- that resources and equipment are kept up to date as much as possible
- that staff skills and knowledge are kept up to date

5. Curriculum Development & Organisation

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

Each class is allocated a time in the computing suite to help aid follow the National Curriculum. Each class is also allocated additional time to access IT equipment to apply the use of computing to other subject areas (iPads are allocated 1:1 in Y6 and 1:2 in Y1 – Y5).

6. Teaching & Learning

Teacher's planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age. A wide range of styles are employed to ensure all children are sufficiently challenged:

- children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- different pace of working
- different groupings of children - groupings may be based on ability; either same ability or mixed ability.
- different levels of input and support
- different outcomes expected

The computing leader will review teachers' computing plans to ensure a range of teaching styles are employed to cater for all needs and promote the successful development of computing.

7. Equal Opportunities

(Please read in conjunction with the school's Equality and Diversity policy)

We will ensure we meet equal opportunities by:

- ensuring all children follow the National Curriculum for Computing
- keeping a record of children's work in Creative Curriculum books, where appropriate, to ensure equal access and fairness of distribution of IT resources
- providing curriculum materials and software which are in no way class, gender or racially prejudice or biased
- monitoring the level of access to computers in the home environment to ensure no pupils are unduly disadvantaged

8. Internet Safety

The use of technology has become a significant component of many safeguarding issues. Child sexual exploitation; radicalisation; sexual predation: technology often provides the platform that facilitates harm.

At Thorntree, we teach online safety regularly to protect and educate the whole school community in their use of technology. This includes, but is not limited to; a series of progressive online safety lessons for children across school (KS1 PiXL/ KS2 'Be Internet Legends), parent presentations, Newsletters and a 'Keeping Our Children Safe Online' page on the school website.

In order to limit children's exposure to the above risks from the school's IT system, we also have filtering and monitoring systems in place, which report to the designated safeguarding lead and parents/ children sign an Acceptable User Policy which is updated regularly.

Technology in this area evolves and changes rapidly; staff are updated with current trends and they undergo regular updated Safeguarding training.

See separate Safeguarding and Child Protection policy for more information.

9. Assessment

Computing is assessed both formatively and summatively. Formative assessment occurs on a lesson by lesson basis based on the lesson objectives and skills required to be taught. These are conducted informally by the class teacher and are used to inform future planning. The skills the children have covered are highlighted in teacher assessment files and using teacher assessment a judgement is made as to whether they are working at age expected standard.

10. Inclusion

We recognise computing offers particular opportunities for pupils with special educational needs and gifted and/or talented children and /or children with English as an additional language for example. Computing can cater for the variety of learning styles which a class of children may possess. Using computing can:

- increase access to the curriculum
- raise levels of motivation and self esteem
- improve the accuracy and presentation of work
- address individual needs

We aim to maximise the use and benefits of IT as one of many resources to enable all pupils to achieve their full potential. If the situation arises, the school will endeavour to provide appropriate resources to suit the specific needs of individual or groups of children.

11. Roles & responsibilities

Senior Management

The overall responsibility for the use of IT rests with the senior management of a school. The Head, in consultation with staff:

- determines the ways computing should support, enrich and extend the curriculum;
- decides the provision and allocation of resources ;
- decides ways in which developments can be assessed, and records maintained ;
- ensures that IT is used in a way to achieve the aims and objectives of the school;
- ensures that there is an computing policy, and identifies a computing leader.

Computing Leader

There is a designated computing leader to oversee the planning and delivery of computing within the school. The leader will be responsible for

- raising standards in computing as a national curriculum subject
- facilitating the use of computing across the curriculum in collaboration with all subject leaders
- providing or organising training to keep staff skills and knowledge up to date
- advising colleagues about effective teaching strategies, managing equipment and purchasing resources
- monitoring the delivery of the computing curriculum and reporting to the Head Teacher on the current status of the subject.

Subject Leaders

There is a clear distinction between teaching and learning in computing and teaching and learning with computing. Subject leaders should identify where computing should be used in their subject schemes of work. This might involve the use of short dedicated programs that support specific learning objectives or involve children using a specific application, which they have been taught how to use as part of their computing study and are applying those skills within the context of another curriculum subject. Subject leaders work in partnership with the computing leader to ensure all National Curriculum statutory requirements are being met with regard to the use of computing within curriculum subjects.

The Classroom Teacher

Even though whole school co-ordination and support is essential to the development of computing capability, it remains the responsibility of each teacher to plan and teach appropriate IT activities and assist the leader in the monitoring and recording of pupil progress in computing.

12. Monitoring

Monitoring computing will enable the leader to gain a good overview of the 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 leader will:

- Scrutinise plans to ensure full coverage of the computing curriculum requirements
- Analyse children's work
- Observe computing teaching and learning in the classroom
- Hold discussions with teachers and learners
- Analyse assessment data

13. Health & Safety

We will operate all IT equipment in compliance with Health & Safety requirements. Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers. Computer Room Rules are also shared with children and specific rules for the use of Internet and E-mail should be on display in the classroom (Acceptable User policy). The school also has a 'Responsible Use of The Internet Policy' document.

The Health and Safety at Work Act (1 January 1993), European Directive deals with requirements for computer positioning and quality of screen. This directive is followed for all administration staff. Whilst this legislation only applies to people at work we seek to provide conditions for all children which meet these requirements. The school has an alarm system installed throughout. Each computer system has individual security against access to the management system. The files and network system are backed up regularly. The virus checker is updated regularly.

14. Appropriate legislation, including copyright and GDPR.

(Please read in conjunction with the school's GDPR policy)

All software loaded on school computer systems must have been agreed with the designated person in the school. All our software is used in strict accordance with the licence agreement. We don't allow personal software to be loaded onto school computers. Effective and efficient deployment of IT resources are deployed throughout the school to maximise access, to enhance teaching & learning and to raise attainment. To enable regular and whole class teaching of computing the school has a Computing suite which all classes in key stages 1 & 2 use for approximately 1 hour per week to develop their computing skills. Children also have access to class sets of iPads and laptops which are available for staff to book out. A class set of VR headsets are also available to be booked out if needed. All classrooms, including the computing suite, have interactive whiteboards available at all times. A consistent interface is provided on all machines to enable familiarity and continuity with generic 'toolkit' software licensed and available on all curriculum computers in school. A curriculum 'peer to peer' network enables internet access on all machines as well as storage and access to shared files.

15. Website

Please see the school's website and management policy.

There is an annual review of this policy by the computing leader.

Last reviewed November 2019