Computing Policy

Bushmead Primary School

November 2022

Contents

1. Aims

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. We recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The scope of our curriculum enables our children to understand that there is always a choice with using technology. At our school, and by the end of KS2, our pupils are masters of technology and computational thinkers by knowing how technology can work for them through a rigorous, coherent and sequential learning journey. Computing is both the children's rights and responsibilities. Our curriculum aims to:

- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- Use computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use computing throughout their later life.
- To enhance learning in other areas of the curriculum using computing.
- To develop the understanding of how to use computing safely and responsibly.
- To educate all pupils that computing is a right and a responsibility that they should uphold.

2. Intent statement

In Computing, pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this 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 future workplace and as active participants in a digital world.

3. Roles and responsibilities

3.1 The head teacher

The head teacher will:

- Work with staff, parents and governors to determine the strategic development of the computing policy and provision in the school.

- Have overall responsibility for the provision and progress of learners with SEND and/or a disability.

3.2 The Governor/s

They will:

- Work with the head teacher to determine the strategic development of the policy and provision in the school.

The Governing Body will review this policy in line with the Policy review schedule at the C&S committee meetings

3.3 Class teachers and teaching assistants

They will:

- Work with the head teacher to implement the policy in class teaching and throughout the curriculum

4. Rationale

The school believes that computing:

- Gives pupils immediate access to a rich source of materials.
- Can present information in new ways which help pupils understand access and use it more readily.
- Can motivate and enthuse pupils.
- Can help pupils focus and concentrate.
- Offers potential for effective group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.
- Ensures that pupils become digitally literate – that they are able to use and express themselves through technology and that they are at a level suitable for the future workplace as active participants in an ever changing digital world.

5. Objectives

Early years

It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

By the end of key stage 1 pupils should be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond the school
- Use technology safely and respectfully online, keeping personal information private, identify where to go for help and support when they have concerns about content or contact the Internet or other online technologies

By the end of key stage 2 pupils should be taught to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content;
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

6. Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the school. Teachers are required to inform the ICT support of any faults as soon as they are notice. Resources, if not classroom based, are located in the computing resource cupboard or stored away by the technician.

7. Planning

The school is using a Teach Computing Scheme of Work to deliver the Computing National Curriculum. Pupil progress towards objectives will be recorded by teachers as part of their class recording system.

8. Access and record keeping

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key computing skills each term. Assessing computing work is an integral part of teaching and learning and central to good practice. As assessment is part of the learning process it is essential that pupils are closely involved. Assessment can be broken down into;

- Formative assessments which are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.
- Every lesson includes formative assessment opportunities for teachers to use. These opportunities are listed in the lesson plan and are included to ensure that misconceptions are recognised and addressed if they occur. They vary from teacher observation or questioning,

to marked activities. These assessments are vital to ensure that teachers are adapting their teaching to suit the needs of the pupils that they are working with and encouraged to change parts of the lesson, such as how much time spent on a specific activity, in response to these assessments. The learning objective and success criteria are introduced in the slides at the beginning of every lesson. At the end of every lesson, pupils are invited to assess how well they feel they have met the learning objective using our green and red assessment cards. This gives pupils a reminder of the content that has been covered, as well as a chance to reflect. It is also a chance for teachers to see how confident the class is feeling so that they can make changes to subsequent lessons accordingly.

- Summative assessment should review pupils' capability and provide a best fit. Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils – showing whether the pupils are below, within or secure in the learning objectives.

We record the results in our assessment files and we use these to plan future work, to provide the basis for assessing the progress of the child and to pass information on to the next teacher at the end of the year. Computing work is saved on the school network.

- Pedagogically, when we assess, we want to ensure that we are assessing a pupil's understanding of computing concepts and skills, as opposed to their reading and writing skills. Therefore, we encourage observational assessment while pupils are still developing their literacy skills. We believe that this is the most reliable way to capture an accurate picture of learning. Additionally, we use proof of progress as part of our summative assessment. The pupils get to showcase what they have learnt in a practical way using devices or in a recoded written way explaining what they have learnt.

9. Monitoring arrangements

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. The governors will ensure this policy is reviewed.

10. Equal opportunities

We will ensure that all children are provided with the same learning opportunities whatever their social class, gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

11. Links with other policies and documents

This policy links to our policies on:

- Health and Safety policy

- Acceptable user policy

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