Whitby Heath Primary School

Computing Policy

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Agreed by Governors	November 2023
Next Review	December 2025
Head teacher	Mr S Wright
Chair of Governors	Mr N Lacey

Whitby Heath Computing Policy

1. Aims

At Whitby Heath Primary School we aim to provide a broad and balanced Computing curriculum that fully meets the requirements set out in the National Curriculum.

Within our Computing Curriculum, we want to foster an enjoyment of Computing and love of learning around Computing. We want to ensure that children have the necessary key skills to use different applications and to be prepared for today's changing world and the future. We want all children to be digitally literate where they can use and develop ideas through information and communication technology at a suitable level.

At Whitby Heath Primary School, through quality teaching, we apply a progressive model that enables children, throughout their school life, to develop a systematic and critical way of thinking in daily life and the wider world. Our curriculum lends itself to broadening student's knowledge through the use of engagement and cross-curricular activities.

2. Statutory Requirements

Whitby Heath Primary School have adopted the ***TeachComputing*** scheme of work to deliver our Computing curriculum. The scheme has been designed to meet all the National Curriculum requirements and is planned in a spiral structure to ensure regular coverage and revisiting to increase depth of understanding and recall. National Curriculum outcomes as well as Early Learning Goals are included in the planning documents.

3. Curriculum Content & Delivery

Our Computing curriculum is planned and sequenced so that new knowledge and skills build on what has been taught before. We recognise that new learning is fragile, so our approach is generative and sticky, enabling our pupils to make links between new and existing knowledge to aid long term retention. Learning is sequenced to ensure that there are opportunities for spaced learning and links between curriculum areas are explicit; allowing children to build a detailed schema for design and also across other subjects.

In Key Stage 1 and 2, Computing is taught termly through lessons being taught fortnightly. Additional STEM opportunities are planned throughout the year for enrichment, particularly History, Geography and English. In EYFS, Computing is threaded throughout the thematic learning planned both through explicit teaching and continuous provision opportunities.

Within the curriculum, the key knowledge and skills for each year group can be seen in our progression of skills documents. These have then been broken down into topics in our long plans, provided by ***TeachComputing***. Individual lesson plans for the unit as well as resources are also provided. These plans ensure that the following areas are covered in all units of work.

KS1: **Pupils should be taught to:**

- Understand what algorithms are, how they are implemented as programs on digital devices.
- Create and debug simple programs.
- What technology looks like around us and how it is used effectively.
- How to use applications to design and create.
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

KS2: **Pupils should be taught to:**

- Design, write and debug 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.
- Use logical reasoning to explain how some simple algorithms work 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 design and create a range of programs, systems and content that 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

Computing is taught as a stand alone subject, however, where meaningful links can be made to tie-in end products with other subject areas, this has been done and does not affect the overall spiral nature of the curriculum and progression of skills.

4. Rationale for using TeachComputing

At Whitby Heath we have opted to use the ***TeachComputing*** scheme of work and curriculum materials. It ensures complete coverage of all National Curriculum outcomes, and the cyclical nature of the curriculum design is in keeping with Whitby Heath's aim to regularly review learning to increase retention of knowledge and deepen understanding.

In addition, Computing is a subject area requiring some degree of technical knowledge and understanding to teach successfully. ***TeachComputing*** provides lesson plans and assessments at the end of the unit to help assist the teaching element.

5. Roles and responsibilities

5.1 The Governing Body

The governing body will approve the Computing policy and hold the headteacher to account for its implementation.

5.2 The Headteacher

The Headteacher is responsible for ensuring that Computing is taught consistently across the school.

5.3 Computing Coordinator and Strategic Team Leader

The Computing coordinator at Whitby Heath is Mr R Spann and he is responsible for:

- Planning and coordination of the Computing curriculum ensuring coverage in-line with that required by the National Curriculum.
- Providing training for staff to ensure consistent and age-appropriate delivery of the curriculum.
- Monitoring and supporting staff in the delivery and assessment of the curriculum.
- Working as part of the Strategic STEM team to ensure that all areas within the remit of this policy are implemented and impact monitored.

5.4 Staff

Staff are responsible for:

- Delivering the Computing curriculum in an engaging and practical way
- Modelling positive attitudes to Computing
- Monitoring progress
- Responding to the needs of individual pupils

5.5 Pupils

Pupils are expected to engage fully in Computing sessions. When taking part in Computing, pupils are expected to show responsibility and care for electrical equipment and use applications appropriately.

6. Training

Staff are trained on the delivery of Computing as part of our continuing professional development calendar. Additional training resources are available through ***TeachComputing*** and staff are encouraged to access these as needed in the delivery of specific technical skills.

7. SEND and Inclusion

At Whitby Heath we have high expectations of all our pupils. However, we recognise that for some pupils, additional support is needed to ensure they can access tasks and retain key learning. Tasks are adapted or scaffolded to ensure that they provide suitable challenges that focus on the learning in Computing and remove any barriers for learning that stop learning in Computing. Teachers use their pupil passports and appropriate

assessments to help inform their planning. This way, a person-centered approach ensures progress is made and learning is personalised.

We want all learning to support independence wherever possible. Teachers will plan lessons so that pupils with SEND are able to successfully access the key content of the Computing curriculum and ensure that no ceiling is placed on their learning and what they can achieve. Promoting independence, we allow the children to feel a sense of equality and belonging in their classroom environment.

Where appropriate, the following strategies could be used for pupils with SEND:

Task Adaptation

- Opportunities for overlearning key knowledge.
- Technology used for recording information.
- Web based learning for practice and learning of key knowledge.
- Use of concrete resources.
- Voice recordings or pictorial representations of step-by-step instructions.
- Voice recordings or pictorial representations of responses.
- Screen shots and photographs.
- Voice recordings.
- Peer support for mathematical skills.

Scaffolding

- Modeling specifically for a small group of children.
- Vocab mats highlighting specific vocabulary for a task.
- Broken down instructions for a task.
- Sentence stems from board/worksheet.
- Task organizer.
- Use of concrete resources.
- Further questioning.
- Additional focused explanations.
- Precision teaching of key knowledge.
- Additional oracy opportunities.
- Peer support.

Where a child struggles with key aspects of learning, it is crucial that we highlight what is key knowledge for a child to move on with their learning. Progression maps highlight which knowledge is the basis for other knowledge later on within the Computing curriculum. Staff can therefore provide time for overlearning this key knowledge where it is deemed appropriate for these children. Support and CPD is given to staff to ensure they have a good understanding of what learning is key to moving on. These children are discussed regularly with the SENCo.

Higher Attainers

Opportunities for higher attainers to take learning deeper are planned throughout the curriculum. Open ended tasks and high quality first teaching ensure that learning is taken deeper. Enrichment opportunities are planned throughout the year. Opportunities for children to explore careers in STEM are planned into the curriculum and accessed where appropriate. Visiting speakers are encouraged to come in and support classes in delivering key areas of Computing and STEM.

Impact

At Whitby Heath, we ensure that all students are exposed to rich learning experiences so that:

- All children to be digitally literate, being able to use and develop their ideas through information and communication technology at a level suitable for a future workplace and so that they are prepared to be active participants in a digital world.
- Children can use different technological applications confidently and fluently.
- Children are able to use laptops and iPads cross-curricular for research and design purposes.

8. Monitoring arrangements

The delivery of Computing is monitored by the Computing coordinator, Mr R Spann through:

- Learning walks
- Pupil voice
- Planning scrutiny

Pupils' development in Computing is monitored by class teachers as part of our internal assessment systems.

This policy will be reviewed by Mr R Spann, the Computing coordinator, every 3 years. At every review, the policy will be approved by the governing body and the Headteacher.

9. Links with other policies

- Safeguarding
- Online Safety

Appendices:

Appendix 1:

Long term computing plan

Computing Long Term Curriculum Plan TeachComputing Scheme			
Year 1	Autumn 1&2: Technology around us	Spring 1&2: Digital Painting	Summer 1&2: Moving a robot
Year 2	Autumn 1&2: IT around us	Spring 1&2: Digital Photography	Summer 1&2: Robot algorithms
Year 3	Autumn 1&2: Connecting computers	Spring 1&2: Sequences in Music	Summer 1&2: Digital Publishing
Year 4	Autumn 1&2: The internet	Spring 1&2: Audio Editing	Summer 1&2: Repetition in shapes
Year 5	Autumn 1&2: Sharing information	Spring 1&2: Vector drawings	Summer 1&2: Selection in Physical Computing (CrumbleKits)
Year 6	Autumn 1&2: Communication	Spring 1&2: Web page creation	Summer 1&2: Sensing (Micro:Bit)

Appendix 2:

Curriculum Map (Whitby Heath Primary School: Computing)