

Computing Policy

Stanah Primary School



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'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.'

Computing programme of Study, DfE, 2013

(Enthusiastic - Stanah Value)

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1. Intent

Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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.

At Stanah, we believe that Computing is an integral part of preparing children to live in a world where technology is continuously and rapidly evolving, so much so that children are being prepared to work with technology that doesn't even exist yet. For this reason, we feel that it is important that children are able to participate in the creation of these new tools to fully grasp the relevance of and the possibilities of emerging technologies thus preparing them for the world of work.

Computing in the National Curriculum expectations splits the teaching and learning of Computing into **three** strands (***Computer Science, Digital Literacy and Information Technology***). It is therefore important that children recognise the difference between what makes each one relevant to their future, as well as their everyday lives. P High quality teaching of Computing, from Reception through to Year 6, utilises a combination of practical lessons and theory lessons designed to promote discussion and nurture understanding, which are also relevant to other areas of the curriculum such as PSHE and Citizenship.

This policy reflects the values and philosophy in relation to the teaching and learning of Computing. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. This policy should be read in conjunction with then NCCE Computing scheme of learning that sets out in detail what children in different year groups will be taught and how Computing can facilitate or enhance learning in other curriculum areas.

This document is intended for:

All teaching staff

All staff with classroom responsibilities

School governors

Parents

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

2. Aims

Computer Science

- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' spiritual, moral, social and cultural development.

Information Technology

- To develop Computing as a cross-curricular tool for learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world.

3. British Values within Computing

Children at Stanah Primary School demonstrate the following values whilst learning about Computing:

Democracy

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

(Helpful, Adaptable – Stanah Values)

Rule of Law

- Developing knowledge of lawful computing behaviours.
- Demonstrating respect for computing laws.
- Understanding the risks in having a 'digital footprint.'

Individual Liberty

- Taking responsibility for our own computing behaviours.

(Resilient – Stanah Value)

- Challenging stereotypes and bias.

(Inquisitive – Stanah Value)

- Exercising rights and personal freedoms safely through knowledge of E-safety.

Respect and Tolerance

- Showing respect for other cultures when undertaking research using computing devices.

(Respectful, Understanding – Stanah Values)

- Providing opportunities for pupils of all backgrounds to achieve in computing.

4. Implementation

In order to develop the Computing capability and understanding of each child we will provide through our planning:

- Computing through all three strands taught within the classroom.
- Continuity throughout the school to ensure that experience and skills are developed in a cohesive and consistent way.
- Access to computers, laptops and iPads within class or in designated communal areas.
- Experience of a variety of well-planned, structured and progressive activities.
- Experience cross-curricular links to widen children's knowledge of the capability of computing including safe use of the Internet, devices and other digital mediums.
- Opportunities for children to recognise the value of computing in their everyday lives and their future working life as active participants in a digital world.

To help identify the three strands of computing, each classroom will have a large poster for display which separates the three strands and act as a reference point to their academic learning. For each unit of learning (Teach Computing), they will also have a large, A3 poster of their relevant Knowledge Organiser as a support tool for learning.

By doing this we will fulfil the requirements of the National Curriculum.

5. Equal Opportunities, Inclusion, Special Educational Needs and Disabilities (SEND)

It is our policy to ensure that all children, regardless of race, class or gender, should have the opportunity to develop their computing capability. We aim to respond to children needs and overcome potential barriers for individuals and groups of children by:

- Ensuring that all children follow the scheme of learning for Computing.
- Providing curriculum materials and programmes, which are in no way class, gender or racially prejudice or biased.
- Providing opportunities for our children who do not have access at home to use the school computers/Internet to develop independent learning.
- Providing suitable challenges for more able children, as well as support for those who have emerging needs.
- Responding to the diversity of children's social, cultural and ethnographical backgrounds.

- Overcoming barriers to learning through the use of assessment and additional support.
- Communication or language difficulties by developing computing skills through the use of all their individual senses and strengths.
- Movement or physical difficulties by developing computing skills through utilising their individual strengths.
- Behavioural or emotional difficulties (including stress and trauma) by developing the understanding and management of their own learning behaviours.

6. Impact

As in all other subjects, children should be assessed and appraised of their progress in understanding and applying of computing skills. Teacher assessments of computing capability will be recorded throughout the year and reported to parents at the end of each academic year. Staff should keep or save examples of pupils' work to form a judgement on each pupil's level of attainment at the end of each key stage. This evidence is to be stored on **Google Drive** in the **Computing Evidence** folder.

Within the six units of Computing, three of these units will be assessed with the Google Forms, which can be found on **Google Drive** in the **Computing – Google Forms Folder**. Formative assessment will be completed by using the Rubrics in lieu of summative assessments for specified units.

Formative assessment occurs on a lesson-by-lesson basis determined by the aims/objectives.

With regards to Online Safety, Knowledge Mapping Assessments will be used via Project Evolve.

7. Monitoring

Monitoring termly enables the subject leader 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 the quality of Computing teaching and learning, the subject leader will:

- Observe teaching and learning in the classroom.
- Hold discussions with teachers and children.
- Analyse children's work
- Examine plans to ensure full coverage of Computing and cross-curricular requirements

- Assess the effectiveness of teaching materials and software

8. Health and Safety

The school takes Health and Safety very seriously and is aware of the health and safety issues surrounding children's use of Computing devices. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils. As such, we will ensure that:

- All fixed and portable appliances in school are tested by an approved contractor every twelve months.
- Damaged equipment is reported to the computing leaders and ICT manager who will arrange for repair or disposal.
- Online safety is discretely taught each half term by class teachers, through assemblies delivered by Community Liaison Officers and outside agencies and shared with parents through Class Dojo regularly. There is also a link on our school website to direct parents to further information on how to keep children safe online.
- Children learn about rights and responsibilities when using the Internet.
- A monthly newsletter is issued out to parents (via Dojo) to provide them with up-to-date information on E-safety.
- A weekly 'Wake-up Wednesday' Newsletter is uploaded every Wednesday to inform parents/guardians of relevant E-safety information. These are provided by the National Online Safety Network.

(Ambitious – Stanah Value)

9. Security, Legislation, Copyright and Data Protection

We ensure that the school community is kept safe by ensuring that:

- The school technician is responsible for regularly updating anti-virus software.
- The use of Computing will be in line with the school's Acceptable Use Policy (AUP).
- All staff, volunteers and children must sign a copy of the schools AUP.
- Parents are made aware of the AUP at school entry.
- All children are aware of the school rules for responsible use of logging into the school network and will understand the consequence of any misuse.
- Reminders for safe and responsible use of Computing and the Internet will be displayed in all areas.

- Software/apps installed onto the school network server must have been vetted by the teacher for suitable educational content before being purchased and installed. No personal software is to be loaded onto school computers. Further information can be found in the school's Data Protection policy.

10. Teaching and Learning

Stanah uses the NCCE Computing Curriculum and ensures that all parts of the Computing curriculum are covered in Key Stage 1 and Key stage 2 by:

- Learning Programming by using programmable toys, programs on screen, through animation, developing games (simple and interactive) and to develop simple mobile apps.
- Developing their computational thinking through filming, exploring how computer games work, finding and correcting bugs in programs, creating interactive toys, cracking codes and developing project management skills.
- Developing computing creativity by illustrating an eBook, taking and editing digital images, shooting and editing videos, producing digital music, creating geometrical art, learning 3D modelling principles and creating video and web copy for mobile phone apps.
- Investigating computer networks through finding images using the Web, researching a topic, finding out how the school network operates, editing and writing code, creating an e-safety micro-site, and planning the creation of mobile apps and games.
- Communicate and collaborate by producing a talking book, communicating clues, use email, produce wikis, create and write blog pages and design interfaces for apps.
- Understand the need for productivity as a life skill through creating a card electronically, record bug hunt data, create surveys and analyse results, record and analyse weather data, create virtual spaces and research the app market.

Teacher's planning is differentiated to meet the range of needs in each class. A wide range of teaching and learning 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 of the task.

At Stanah, we recognise that there will be children in each National Curriculum subject who perform at level which is better than 'expected'. Academically, these children will achieve a higher level of attainment than their peers whilst those who are talented will display a particular aptitude for art, music, sport and performing arts.

For these children, we aim to provide quality learning opportunities which fit in with the sequence of teaching without accelerating to the next stage. They will be given further opportunities to apply their learning in a wider variety of contexts than expected.

We expect children at this level to be able to prove and clarify their knowledge and understanding with explanations and examples. The more-able children will offer other solutions and different strategies whilst making explicit links to prior learning. They will be able to make considered predictions and will confidently design and create examples of their own.

11. Internet Safety

Internet safety is taught via Project Evolve. The children will be taught through specific strands that correlate to their age group. At the end of a unit, the children's learning is assessed via knowledge mapping assessments and any 'gaps' can be identified and consolidated.

Internet access is planned to enrich and extend learning activities across the curriculum. However, we have acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies both in school and outside.

Please see the Online Safety Policy for further information.

12. Roles and Responsibilities

The head teacher, in consultation with the Computing leader and staff will:

- Determine the ways in which Computing supports, enriches and extends the curriculum.
- Decide on the provision and allocation of resources.
- Ensure that Computing is used in a way that achieves the aims and objectives of the school.

There is a designated Computing leader to oversee the planning and delivery of Computing within the school through:

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 and governors.

The Computing Lead and IT Technician work in partnership to ensure all National Curriculum statutory requirements are being met with regard to the use of Computing within curriculum subjects.

Whole school coordination and support is essential to the development of Computing capability however, it is the responsibility of each individual teacher to plan and teach appropriate Computing activities (Via the NCCE curriculum) and assist the leader in the monitoring and recording of pupil progress in the subjects.

13. Home School Links

Our school website promotes the school and children's achievements as well as providing information and communication between the school, parents and the local community. Twitter, Facebook and Class Dojo is used to keep parents up to date and to share children's achievements in a more accessible way.

Class Dojo, texts and/or emails are sent to parents as reminders or to inform instead of sending letters home with children.

Virtual parents evenings are used via the School Cloud app. For further information on the Data Protection and GDPR policy for School Cloud, please visit:

<https://support.parenteveningsystem.co.uk/category/495-data-protection-gdpr>

Zoom is also used by the school for remote staff meetings and virtual events. At times, we will record these Zoom meetings. By attending a meeting that is to be recorded, the visitor gives permission to be recorded. For further information on the Data Protection and GDPR policy for Zoom, please visit:

<https://explore.zoom.us/en/trust/legal-compliance/>

Loom is used for creating educational content, that can be accessed from home and within School. For further information on the Data Protection and GDPR policy for Loom, please visit:

<https://www.loom.com/privacy>

Google G-suite for Education and Google Classroom is currently being implemented (October 2021) into Stanah's curriculum. For further information on the Data Protection and GDPR policy for Google's G-Suite for Education, please visit:

<https://safety.google/intl/en-GB/>

14. Deployment of Computing Resources

To enable regular and whole class teaching of Computing, teachers have access to a bank of laptops as well as a shared bank of iPads. Every class has an interactive touch-screen board linked to a main computer on the school network. All of the school halls have ceiling mounted projectors and a retractable screen, which are also linked to the school network.