Date Policy Agreed by Governors:		**Date Policy to be Reviewed:**	

Computing Policy
(including Online Safety Curriculum)

Aim
The aim of this policy is to provide a clear statement of the principles and practice underpinning the Computing curriculum at Hallgate Primary School. It provides a framework that enables all adults working in school to be clear about our intention and consistent in the way we deliver our Computing curriculum to our pupils. It reflects both the aspirations and practice of staff and governors for the pupils at Hallgate.

Intent
At Hallgate Primary School, our vision and values are at the core of everything we do; they underpin our teaching and learning and create an environment which supports our children to become successful learners, confident individuals and responsible citizens. We ensure that our pupils enjoy an existing and challenging curriculum, which equips them with the skills needed for a successful future.

Successful Learners
At Hallgate Primary School we take responsibility for ensuring that our children are equipped with the essential skills that they need to be successful learners and we are committed to ensuring that all children make good progress from their starting points in core areas of the curriculum.

We place a strong emphasis on developing pupils as 'Super Learners'; encouraging a positive attitude to learning which equips children with the confidence and resilience they need to be good learners.

Our six core skills are : Concentrate, Don't give up, Co-operate, Have a go, Keep improving, and Enjoy learning.

We aim to develop a love of learning which encourages curiosity, engagement and enjoyment. We place a strong emphasis on developing skills for life and encourage learning for a purpose, enabling children to make links between different areas of the curriculum and apply their learning in a meaningful way. We pride ourselves on offering pupils a broad, balanced and vibrant curriculum with exciting and stimulating learning opportunities in all areas of the curriculum.

Confident Individuals
Our aim is to enable all pupils to become confident individuals who face new challenges with ease and see themselves as successful learners and valued individuals.

We want pupils to be able to have a go, make mistakes and keep improving within a learning environment, where they feel safe, secure, supported, valued and calm. This is facilitated at Hallgate Primary School through promoting a strong values ethos, clear behaviour expectations, a well organised learning environment and quality first teaching in the classrooms.

Quality First Teaching includes:

- Staff having high expectations of themselves and all children.
- Teachers are expected to impart knowledge accurately and with enthusiasm.
- They are expected to take into account prior knowledge and experiences and to build on this in a systematic way.
- Highly focused lessons with clear learning objectives.
- High demands of child engagement with their own learning.
- High levels of interaction for all children.
- Appropriate use of teacher questioning, modelling and explaining.
- Emphasis on learning through dialogue and exploration.
- An expectation that children will develop resilience and accept responsibility for their own learning and independence.
- Regular use of praise and encouragement to motivate children.

We are committed to providing pupils with a wide range of opportunities which broaden their skills and develop their confidence. The chance to see, hear, participate in a range of experiences enrich the quality of pupils' lives and develop skills such as cooperation, creativity, innovation, problem solving, self-expression, leadership and independence.

Responsible Citizens
Integral to the Hallgate Curriculum is a commitment to developing well rounded, responsible citizens who care about each other, their school, their community and their world.

This is done through the promotion of Hallgate Values, British Values and an emphasis on Spiritual, Moral, Social and Cultural Development throughout the curriculum. Children are taught what it means to be responsible citizens and are given opportunities to put this into practice.

Computing Curriculum Intent

At Hallgate Primary School we intend to build a Computing curriculum which is inspiring, rigorous, and practical. We want our children to be creators rather than consumers of the digital, to develop the skills necessary to participate in an increasingly digital world and to be digitally literate. We intend for all children to acquire appropriate subject knowledge, skills and understanding as set out in the National Curriculum and Statutory Framework for EYFS . It is our aim to create strong cross curricular links with other subjects, such as Mathematics, Science, Design Technology, and Art (STEAM). We want Computing to prepare our children, to give them the opportunities, responsibilities, and experiences they need to be successful in later life.

Implementation of our Curriculum

Computing is a crucial part of school life and learning and it is for this reason that as a school we are dedicated to the teaching and delivery of a high-quality Computing curriculum that uses computational thinking and creativity to understand and change the world. This is implemented through:

- A well thought out, whole school, 2- year overview of the Computing curriculum which allows for progression across year groups in all areas of Computing Curriculum
- Well planned and resourced units of work provide children with a hands-on and enriching experience based upon the Teach Computing Curriculum in Key Stage 1 and 2 and Barefoot Computing (Computing at School) in the Foundation Stage
- The Teach Computing Curriculum, in which every year group learns through units within the same four themes, which combines the ten strands of the National Centre for Computing Education's taxonomy
- Barefoot Computing which teaches children the necessary problem-solving skills needed for everyday life working towards the Early Learning Goals and preparing them for Key Stage 1
- Teachers being given ownership and flexibility to plan for Computing; often teaching Computing as a block of lessons to allow the time needed for the children to be critical, inventive and evaluative on their work. This flexibility allows for creative links to be made across the curriculum.
- An Online safety Curriculum which is taught through Jigsaw (our PSHE curriculum), Teach Computing and Projectevolve (a digital literacy toolkit that supports online development in children and young people.)

Early Years Foundation Stage

Despite computing and online safety not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework there are many opportunities for young children to use technology to solve problems, produce creative outcomes and to learn about being safe online. 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 Computing scenarios based on experience in the real world, such as in role play. We plan for computational thinking concepts and approaches, to support children in gaining

confidence, control and language skills through 'plugged and unplugged' learning opportunities.

Below are some of the teaching we would expect for each strand of the EYFS framework:

- Understanding the world - Classrooms will contain a role play area with a range of technology, both functioning and model / broken devices, or a variety of electronic toys, such as remote controlled cars, walkie-talkies and interactive pets, as part of continuous provision. The pedagogical approaches used in this age group will be carefully considered and will include the need to tinker, or play, with a device, in order to discover how it functions.
- Literacy - a story about the Bee Bot's journey, such as around a local area or a country being studied, or they might be used to sequence events within a story being studied.
- Physical development - Many children entering Early Years settings are already familiar with tablet devices, although their ability to use a keyboard and mouse is often limited. It is therefore important that children are given opportunities to become familiar with a range of input devices, including the keyboard and mouse, in order to develop the required fine motor skills. The expectation is not to type words but to understand they inputs (keys) produce an output (letters on the screen)
- Communication and language - Unplugged activities, or those away from the machine, give children opportunities to develop their understanding of technology without the need for expensive devices. Children might for example be asked to give precise instructions verbally, such as through giving instructions to a sandwich making robot, with links made to the importance of using the correct vocabulary, along with speaking clearly and precisely. Giving instructions would also form part of sessions linked to physical development activities, such as determining rules for certain playground games.
- Personal, social and emotional development - Voice recorders, or the microphone built into a tablet device could be used to record how pupils are feeling, or to discuss their relationships with others. This could be extended through pupils creating their own videos, which could also link to children giving online safety guidance to their peers on appropriate use of technology and what to do if they feel worried or concerned when using a device.
- Expressive arts and design - The use of painting and graphics applications can develop pupils' keyboard and mouse skills. Creative outcomes can be produced, which allows pupils to take ownership of their work and could even be part of an extended project. Outputs produced could be linked to other uses of technology, such as producing mats for Bee Beets to travel around. Outfits could be designed for the device to wear, such as Bee Bot head dresses.
- Mathematics - Controlling devices provides an excellent opportunity to develop pupils' understanding of left and right, along with directional language. Pupils could be asked to guide a device around a shape, or even use activities from

computing related websites, such as code.org, to develop their understanding further. However, whilst such activities can effectively engage pupils in programming tasks, their usage should be carefully considered to ensure they have a purpose.

Learning Environment

Pupils learn well in a calm, positive, well ordered, well managed and stimulating environment where expectations are clear. All environments have to be planned to give children the best learning potential, including:

- Appropriate and flexible grouping of pupils -
- A variety of ways of working including individual, paired, group work and whole class.
- Well organised resources which enable maximum independence for pupils and the ability.
- Explicit consideration given to online safety. Children should be explicitly taught how to safely use the Internet on every occasion that they Internet is used.

Behaviour Expectations

All staff at Hallgate Primary School follow our Behaviour Policy. Individual class teachers explain and discuss the school's expectations with their class. We expect all of our pupils to comply with these expectations in order to promote the best learning opportunities for everyone. To ensure this, we implement:

- Use of the 'Power of 3' to ensure consistent expectations within the classroom and around the school.
- Clear classroom display, and regular referral to, our behaviour expectations and Hallgate Values.
- Consistent use of positive reinforcement and rewards.
- Consistent and fair use of warnings and sanctions, in line with our Behaviour Policy.

Planning

Hallgate Primary School will follow The Teach Computing Curriculum which is structured in units. For these units to be coherent, the lessons within a unit must be taught in order. However, across a year group, the units themselves do not need to be taught in order, with the exception of 'Programming' units, where concepts and skills rely on prior learning and experiences. A Long Term Plan (2 year cycle) to ensure coverage has been shared with the staff and can be found in the Computing Folders in the Curriculum area on Google Drive.

Knowledge organisation

The Teach Computing Curriculum uses the National Centre for Computing Education's computing taxonomy to ensure comprehensive coverage of the subject. All learning

outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically as follows:

- Algorithms — Be able to comprehend, design, create, and evaluate algorithms
- Computer networks — Understand how networks can be used to retrieve and share information, and how they come with associated risks
- Computer systems — Understand what a computer is, and how its constituent parts function together as a whole
- Creating media — Select and create a range of media including text, images, sounds, and video
- Data and information — Understand how data is stored, organised, and used to represent real-world artefacts and scenarios
- Design and development — Understand the activities involved in planning, creating, and evaluating computing artefacts
- Effective use of tools — Use software tools to support computing work
- Impact of technology — Understand how individuals, systems, and society as a whole interact with computer systems
- Programming — Create software to allow computers to solve problems
- Safety and security — Understand risks when using technology, and how to protect individuals and systems

The taxonomy provides categories and an organised view of content to encapsulate the discipline of computing. Whilst all strands are present at all phases, they are not always taught explicitly.

Spiral curriculum

The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.

Online Curriculum

Our Online Curriculum is based upon the Education for a Connected World framework (ncce.io/efacw). It is drawn together using the Jigsaw PSHE Curriculum, the Teach Computing Curriculum and the Projectevolve toolkit.

Our Long Term Plan, based upon the Projectevolve toolkit content, covers progression across all strands from Early Years to Year 6 covering Self-image and identity, Online Relationships, Online Bullying, Heath Wellbeing & Lifestyle, Privacy & Security, Copyright and Ownership, and Managing Online Information and is founded on the UKCIS/DCMS “Education for a Connected World” competency framework.

Resources

Hallgate Primary school has invested in 3 trolleys, each trolley holds 16 Chrome Books. This allows for a trolley for each phase. Each phase also as a set of 12 iPads

The Teach Computing Curriculum acknowledges that physical computing plays an important role in modern pedagogical approaches in computing, both as a tool to engage pupils and as a strategy to develop pupils' understanding in more creative ways. Additionally, physical computing supports and engages a diverse range of pupils in tangible and challenging tasks.

The physical computing units in the Teach Computing Curriculum are:

- Year 6 – Sensing movement, which uses a micro:bit

We work with our local Computing Hub who can loan the kit we need to teach the physical computing units from our curriculum (ncce.io/hubs).

Impact of our Curriculum

Children will have clear enjoyment and confidence in Computing that they will then apply to other areas of the curriculum. Through carefully planned and implemented learning activities the pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They gain a firm foundation of knowledge and skills to see them equipped to take on further learning in the next phase of their education. Pupil's skills and knowledge are assessed ongoingly by the class teacher, throughout lessons and a summative assessment is completed termly. This informs the Computing coordinator of any further areas for curriculum development, pupil support and/or training requirements for staff. EYFS pupils' progress and attainment tells us whether each individual child is below expected, at expected or above expected attainment for their age.

Assessment

Computing is assessed against objectives on Otrack, which link to the Progression of Skills based upon the Teach Computing Curriculum (see separate document).

Early Years Foundation Stage

Formal assessment of Computing begins in Key Stage1. Assessment in Foundation Stage is completed against the Early Learning Goals (See EYFS Policy 2022 Section 3.1)

Formative assessment

Within the Teach Computing Curriculum 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 you are encouraged to change

parts of the lesson, such as how much time you spend 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 thumbs up, thumbs sideways, or thumbs down. 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

Key Stage 1

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 use observational assessment while pupils are still developing their literacy skills. This is the most reliable way to capture an accurate picture of learning. Observing learning To capture summative assessment data of KS1 pupils, we recommend using the success criteria in each lesson and capturing some of the following while the lesson is taking place:

- The work that pupils complete (marking)
- Notes on conversations or discussions that you have or hear during an activity
- Photographs of the work that pupils produce during an activity
- The pupils' self-assessments at the end of the lesson This data is to support teachers' assessments of the pupils' understanding of the concepts and skills that were taught in the lesson.

To help you make these assessments, teachers could also use one, or a combination of, the following strategies:

- Focussing on different pupils each lesson
- Creating checklists of what you expect to see
- Focussing on specific pupils

Key Stage 2

Every unit, within the Teach Computing Curriculum, includes an optional summative assessment framework in the form of either a multiple choice quiz (MCQ) or a rubric should the teacher feel they need additional assessment information. All units are designed to cover both skills and concepts from across the computing national curriculum. Units that focus more on conceptual development include an MCQ. Units that focus more on skills development end with a project and include a rubric. However, within the 'Programming' units, the assessment framework (MCQ or rubric) has been selected on a best-fit basis.

Multiple choice quiz (MCQ) - Each of the MCQ questions has been carefully chosen to represent learning that should have been achieved within the unit. In writing the MCQs, we have followed the diagnostic assessment approach to ensure that the assessment of the unit is useful to determine both how well pupils have understood the content, and what pupils have misunderstood, if they have not achieved as expected. Each MCQ includes an answer sheet that highlights the misconceptions that pupils may have if they have chosen a wrong answer. This ensures that teachers know which areas to return to in later units.

Rubric - The rubric is a tool to help teachers assess project-based work. Each rubric covers the application of skills that have been directly taught across the unit, and highlights to teachers whether the pupil is approaching (emerging), achieving (expected), or exceeding the expectations for their age group. It allows teachers to assess projects that pupils have created, focussing on the appropriate application of computing skills and concepts.

Pedagogically, we want to ensure that we are assessing pupils' understanding of computing concepts and skills, as opposed to their reading and writing skills. This has been carefully considered both in how MCQs have been written (considerations such as the language used, the cultural experiences referenced, etc) and in the skills expected to be demonstrated in the rubric.

Online Safety Assessment

Online Safety Curriculum Assessment is completed using the Projectevolve assessment feature called knowledge maps. They offer students a variety of scenarios about their online lives and provides a set of responses that are carefully mapped against the Burch Competency Framework.

These competencies attempt to categorise children's understanding of a concept; whether it is secure, emerging, developing, if they're unsure or if they have understood the concept incorrectly.

Baseline assessments are completed before the unit begins. These assessments then direct teaching staff to the most appropriate lesson(s) that need to be covered for that unit. At the end of the unit of work the children are assessed again using knowledge maps and the classes progress can be measured. This information is accessible by the classteacher, subject leader and Headteacher.

Monitoring and Evaluation

Monitoring for Computing is carried out in line with the school Curriculum Policy. The Subject Leader is responsible for keeping up to date with developments in Computing and the Online Safety Curriculum and organising CPD as required. Best practice for Computing and Online Safety is identified and shared amongst practitioners as part of whole staff meetings and phase meetings.

The Subject Leader, supported by the Curriculum Leader, is responsible for monitoring and evaluating standards in Computing and the Online Safety Curriculum across the school and providing an annual report to the Headteacher and Governors to inform the School SEF, using evidence gathered from: books, data, displays, learning walks, observations, planning and pupil voice.

Health and Safety

The school is aware of the health and safety issues surrounding children's use of ICT and takes it very seriously. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils and these are review constantly in liaison with PrimaryTech (our Technicians).

As such, we 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 office manager who will arrange for repair or disposal.
- Online-safety is taught each term by class teachers (using Teach Computing, Jigsaw and ProjectEvolve)
- 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 (See Online Safety Policy and Acceptable Use Policies)

Equality Duty

In our school we aim to ensure equal opportunity for all regardless of gender, age, ability, religion, race or cultural/ethnic background. Equality at Hallgate School is about enabling all pupils to achieve their maximum potential as individuals and as members of society, and of ensuring equality of opportunity and treatment for all pupils, members of our staff and school community. Our school ethos is to actively promote a warm, caring community where all are valued.

This policy will be reviewed at least annually and necessary improvement will be made following review.