Computing Intent, Implementation and Impact

Purpose &Pride	We take pride in providing a broad, balanced and accessible computing curriculum through "Switched On Computing". This ensures the progressive development of knowledge, skills, vocabulary and understanding in line with the National Curriculum. We want our children tobe responsible, competent, confident, and creative users of information and communication technology. Computing skills and computational thinking are major factors in enabling children to be creative, independent learners and it is our intention that children make meaningful links between computing skills and a broad range of other subjects across our thematic and knowledge-based curriculum. Our children take pride in their learning of computing and are proud to share their ever-increasing knowledge with each other.
Respect	Our children will be responsible, respectful, and competent users of data, information and communication technology, as well as understanding the importance of protecting their own and other's personal information and the need to keep this private. E-safety is of paramount importance. When communicating online, our children are reminded of the importance of being respectful and responsible for their actions and words, as well as informing trusted adults about any concerns.
Enjoyment	We want our children to access and enjoy a wide range of computing areas including: Computer Science which includes coding and Computational Thinking; Information Technology which includes creativity, presenting multimedia and data and finally Digital Literacy focusing on and understanding of the internet and Online Safety. Where possible and relevant, it will be taught through our thematic approach to enable our children to make meaningful links between computing, other subjects and the wider world. Efficient and effective use of technology is essential for everyday life.
Achieve & Aspire	We want our children to know more, remember more and understand more in computing. Becoming digitally literate, in the age of the 'internet of things', we will enable them to express themselves and develop their ideas at a level appropriate for them, whilst preparingthem for their next steps in the world. Our computing curriculum is a spiral approach with themes recurring year by year, to enable children to consolidate their technical skills, develop fluency with a range of applications and develop their knowledge and understanding of the principles that underpin digital technologies leading to greater achievement and inspiring children to set aspirational goals for their future.
Community	We intend to build a computing curriculum, which encourages creative thinking, whichprepares pupils to live safely within their community, both on and offline. In an increasinglydigital British society, we want our pupils to be able to evaluate and apply computing skills to keep themselves and others safe online, whilst still seeing computing and the internet as a force for good. We aim to encourage our children to be aware of the 'wider picture' whenusing the internet and have the confidence to know when and where to seek help. Where possible, we work with external agencies to further our computing learning.
Health & Well-being	Using technology is a major part of our everyday lives. There are very few moments in the day when technology does not impact or influence our lives and we recognise that this is the same for our children also, both at school and at home. We want our children to know how technology can impact on their health and well-being, both positively and negatively. Knowing how to stay safe online and the ways in which to report this crucial to their well- being.

Implementation

Big Picture

- Computing is delivered with high quality planning and teaching, using our progressive graduate document, Hiller Computing Expert, Rising Stars "Switched On Computing" and Project Evolve, which covers the National Curriculum.
- Skills and knowledge (SK) are delivered through 6 units per year group, across the year. Each unit has 6sessions which are taught fortnightly, or in a block.
- Additionally, each year group completes at least one e-safety strand each term (as per the graduate document) using Project Evolve which has been created by leading e-safety organisations. Through this platform, staff baseline, teach and then reassess the children's e-safety knowledge across 8 framework areas.
- The "Switched On Computing" units where possible should be linked to other areas of the curriculum such as History/Geographythrough our thematic approach.
- Learning should be active and inquisitive with open tasks, where possible.
- We use the term computing when we are teaching computing lessons.
- Teachers annotate the "Switched On Computing" lesson plans and work from these.
- A wide range of devices will be used including iPads, Chromebooks, laptops, and the ICT suite.
- A wide range of apps and programs will be used including a range of web browsers, a photo app, Scratch, Office Applications and Apple, Chrome and Microsoft Operating Systems. (see graduate document for more details of progression).
- Mini plenaries will be used throughout lessons to gain pupil voice and understanding, to shape lessons.
- Learning is captured and recorded in each class's floor book to highlight and evaluate the skills and knowledge taught, including pupil voice. This then informs our impact assessment.
- Where possible, samples of work are collected by teachers and stored on our secure Google Drive system. Where capturing evidence of learning is more difficult due to the nature of the subject, photographs will be used.
- Computing is also covered in other areas of our curriculum, such as: whole school theme weeks e.g. Safer internet Week.
- Cultural capital: We have strong links with external government agencies, such as Cyber First and through this our children experience and learn additional skills which build on the learning within our Computing Curriculum and inspire them in the field of Computing by enabling the children to be exposed to skills and software which are used in the wider world. Additionally, Year 6 receive additional sessions to ensure they have the skills needed for secondary school and beyond. Additionally, where opportunities allow, we will take our children out to experience different computing events or training e.g. Apple Store coding. Details ofour Cultural Capital are provided in our graduate document – Hiller Computing Expert.

Our Learners

- We aim to cultivate independent thinkers; they use enquiry-based learning through HOT (higher order thinking) questions (sometimes, always, never), KIP (knowledge is power) quizzes, knowledge organisers and"rapid recall time" at the start of each lesson.
- Learning is inclusive; children work in mixed ability pairs which helps remove barriers to learning.
- Learning is enhanced through a range of software, programming tools, platforms and skills.
- Lessons are language rich with technical vocabulary – where possible, these are linked to the children's everyday experiences e.g. algorithms – simple set of instructions such as brushing your teeth or writing aprogram.
- At the end of each unit, there is a summative quiz to check sticky knowledge gained through questioning to assess the understanding of key skills and vocabulary.

Learning Environment

- Progressive, key vocabulary will be displayed and referred to on the word wall during lessons.
- Knowledge organisers will be used and referred to throughout lessons.

Impact

The Hiller Computer Expert is excellent at problem solving, is responsible, competent, confident and creative users of information and communication technology; continually building on their knowledge.
Through carefully planned cultural capital opportunities, alongside the high quality computing curriculum, we aim to provide children with broader horizons through improved every day computing and e-safety skills, as well as ambition into careers within this field.

The impact for the computing curriculum will be measured through pupil voice, computing "Knowledge is power" quizzes and through teacher assessment both in class and after completing specific units to assess if children are working below or at age-appropriate expectations.

Coverage and attainment in line with our progressive Graduate document, adapted from "Switched On Computing", across classes, is closely monitored by the subject leader and the senior leadership team. Monitoring will include: regular floor book monitoring (termly), learning walks, gathering evidence of good practice, pupil voice interviews and subject data analysis.

The findings of this monitoring will be used to inform next steps for the children and the implementation of computing across the school.