# Curriculum Statement for Computing

| Intent | At Hayton School we value the enormous potential of Computing and the range of possibilities which it opens up for both children and adults to enhance teaching and learning. We welcome the opportunity to improve communication with others, both at home and abroad, and to give us all access to the wealth of information available through our connection to the World-Wide Web. The school believes that computing: <br> • Gives pupils immediate access to a rich source of materials. <br> • Can present information in new ways which help pupils understand access and use it more readily. <br> • Can motivate and enthuse pupils. <br> • Can help pupils focus and concentrate. <br> • Offers potential for effective group working. <br> • Has the flexibility to meet the individual needs and abilities of each pupil. | | | |
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| | **Vocabulary** | **Knowledge and Skills** | **Progression** | **Concepts** |
| | Our intentions for vocabulary in Computing is to expose all pupils to year group specific computing language taking from our school's knowledge and skills progression document. Teachers will share with the pupils the vocabulary that will be required to be used at the start of the lesson. Pupils will be expected to use the vocabulary both verbally and in written form to discuss, reason and communicate about Computing. | Computing at Hayton School intends to create a knowledge and skill led Computing curriculum. Throughout their time at Hayton, pupils will be given regular opportunities to practice and apply their computing skills. Pupils at Hayton will be able to draw upon their Computing knowledge, both in Computing and across subjects in our curriculum (Knowledge led and engagement) through a range of practical, collaborative and written work. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines. | Teachers will plan lessons that cover the knowledge and skills that are expected for each year group. Teachers will ensure their planning covers ELGs or NC POS for each year group. Teachers know what has been taught the previous year and what comes next in knowledge and skills progression. <br> Teachers use and adapt the Teach Computing schemes of work to plan lessons that incrementally build upon knowledge and skills progression. They ensure there is a deep understanding so that all children master the learning. | The NC gives the three clear aspects of the computing curriculum: computer science (CS), information technology (IT) and digital literacy (DL). <br><br> The core of computing is computer science, in which 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. |

| | Inclusive Teaching and Learning | Subject Coverage/ Curriculum | Resources | SMSC |
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| **Implementation** | We believe that all children have the right to access ICT and computing. In order to ensure that children with special educational needs and disabilities achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils. We teach computing to all children, whatever their ability. Hayton C of E Primary School will ensure that all children are provided with the same learning opportunities regardless of 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. | The programmes of study set out within each domain in the National Curriculum and EY Framework will be used to ensure children get the learning experiences that is required.<br>The progression document acts as the basis for teachers' planning. It is tightly planned to ensure the breadth and balance of knowledge and skills are covered<br>over time. Teachers follow the progression document closely, and only vary from it with the approval of the subject leader. Teachers may use their professional judgement to respond to British and global events to teach short discrete lessons and recording them in the subject portfolio. These discrete lessons underpin knowledge or develop a computing skill. Teachers create frequent opportunities for pupils to develop and recall knowledge. | The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible pc system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the school. A service level agreement with Jay By Jay Software Ltd is currently in place to help support the Head to fulfil this role both in hardware and software.<br><br>There is a computing suite of 20 desktops. The Computing resources and the computer suite are available for use throughout the school day as part of computing lessons and for cross curricular use. Each class from y1 – y6 has an allocated time slot in the computer suite for teaching of specific computing skills. | The moral development of our pupils is an important thread running through the Computing Curriculum. Students are provided with opportunities to use their Computing skills in real life contexts, applying and exploring the skills required in solve problems and investigations.<br><br>Research skills and teamwork are fundamental to Computing through creative thinking, discussion, explaining and presenting ideas. Students are always encouraged to explain ideas and knowledge to each other and support each other in their learning. In this manner, students realise their own strengths and feel a sense of achievement which often boosts confidence. Over time they become more independent and resilient learners. |

| | Local Context | Adaptations & Prioritisation | Evidencing Teaching and Learning | Assessment and Monitoring |
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| | At Hayton we recognise that children need to be taught to understand the significance of experiences, situations and contexts outside of school are also relevant to Computing. This ensures that children understand the application of their learning in the world surrounding them. Teachers will integrate or relate Computing into other subject areas across the school's curriculum. | Our planning and teaching will consider the disruptions to teaching caused by school closures. Teachers will consider the disruption to teaching and secure firm foundations before moving onto new learning.<br>Online safety planning will consider disrupted schooling and an eSafety week will be implemented this academic year.<br><br>Kidsafe sessions will be revisited and implemented for various year groups throughout this academic year. | Children's work is saved to the server for reference throughout the year to provide an online portfolio of their achievements that is added to and available to staff and children the following academic year. | Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the Chris Quigley Essentials curriculum and 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. It should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of computing. As assessment is part of the learning process it is essential that pupils are closely involved. Assessment of children's work in computing is ongoing. Achievement is reported to parents at the end of each academic year. We use the Depth of Learning program to record teacher assessment from Year 1 to Year 6. |

| Early Years Curriculum Overview | Primary Curriculum Overview |
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| Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. | **Year 1** – Computing systems and networks – Technology around us, Creating media – Digital painting and Digital Writing, Data and information – Grouping data, Programming – Moving a robot, Introduction to animation.<br>**Year 2** - Computing systems and networks – IT around us, Creating media – Digital photography, Creating media – Making music, Data and information – Pictograms, Programming A – Robot algorithms, Programming B – An introduction to quizzes<br>**Year 3**- Computing systems and networks – Connecting computers, Creating media – Animation, Creating media – Desktop publishing, Data and information – Branching databases, Programming A – Sequence in music, Programming B – Events and actions<br>**Year 4**- Computing systems and networks – The Internet, Creating media – Audio editing, Creating media – Photo editing, Data and information – Data logging, Programming A – Repetition in shapes, Programming B – Repetition in games<br>**Year 5**- Computing systems and networks – Sharing information, Creating media – Vector drawing, Creating media – Video editing, Data and information – Flat-file databases, Programming A – Selection in physical computing, Programming B – Selection in quizzes<br>**Year 6**- Computing systems and networks – Communication, Creating media – 3D Modelling, Creating media – Web page creation, Data and information – Spreadsheets, Programming A – Variables in games, Programming B – Sensing |

| | Pupil Voice | Knowledge | Skills | Culture Capital & British Values | Assessment and Monitoring |
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| **Impact** | Our children and young can offer unique perspectives on what it is like to be part of a Computing lesson; involving them in decision-making creates a meaningful change and better academic outcomes, as well as facilitating a sense of empowerment and inclusion. | Computing knowledge has been mastered when a child can confidently and securely talk about their computing knowledge using the computing language to explain their ideas and can independently apply the knowledge to new learning in unfamiliar situations. All children will be able to retrieve computing knowledge and be able to reason by following a line of enquiry and develop and present a justification, argument or proof using computing language and knowledge. | All children will have the skills and the resilience to solve problems by applying skills linked to Computing to a variety of situations with increasing sophistication, including in unfamiliar contexts and to model real life scenarios. | Our children face unique economic, environmental, and humanitarian challenges. The problem solving required to address these challenges requires solutions that have never been thought of before. In order to tackle these problems, our teachers must challenge the traditional problem solving methodologies used in Computing lessons and encourage new problem solving strategies through incorporation of facilitating of creative problem solving/puzzles and real world investigations. | Leaders monitor the effectiveness of teaching frequently through lesson observations, book scrutinies and pupil voice. The Computing subject leader has a clear role and overall responsibility for the progress of all children in maths throughout school. Working with SLT, key data is analysed and regular feedback is provided and discussed at pupil progress meetings to inform on progress and future actions. |
| | By the end of the Early Years Foundation Stage, Key Stage 1 and Key Stage 2, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant Computing programmes of study (ELG and NC). | | | | |