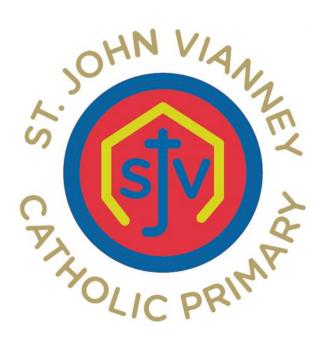# St John Vianney Catholic Primary School, West Denton

Through following Jesus, we aim to be a caring, happy school, where everyone is valued and appreciated and can reach their true potential. We hope to act justly, love tenderly, and walk humbly with our God

Computing Policy
2023-2025

Date reviewed: November 2023

Date of next review: November 2025

Our whole school curriculum vision

Vision

At St John Vianney Catholic Primary School, we endeavor to provide a broad and balanced curriculum which inspires and provides opportunities for success for all of our learners. Through our curriculum, we strive to create independent, curious, creative and critical thinkers, problem solvers and innovators. We aim to provide engaging learning opportunities that encourage our pupils to develop and fulfil their potential academically, socially, emotionally and spiritually. We strive to provide a range of activities and opportunities through a carefully sequenced and progressive curriculum in all subject disciplines, which fosters a passion for learning, stretching beyond the confines of primary school and creates lifelong learners. Our vision is that our curriculum will ignite passion, expand horizons and raise aspirations for all of our learners. We aim to equip our pupils with the knowledge and skills that will prepare them for the world of work in an ever-evolving landscape, and with the confidence, resilience and tolerance to live harmoniously with others.

Intent

Through our curriculum we aim to:

- be inclusive to all learners and provide opportunities for all learners to succeed, regardless of their individual starting points;
- foster a lifelong love of learning;
- develop a rich subject knowledge, including substantive and disciplinary knowledge, conceptual and procedural knowledge;
- make meaningful links between topics within a subject, between different disciplines and across year groups;
- make links to the world in which we live, which goes beyond the white western experience, thereby instilling a positive attitude of respect and tolerance of other societies, cultures and religions;
- raise the self-esteem of children as capable and resourceful learners;
- develop children's ability to think creatively, solve problems and innovate;
- develop children's capacity and confidence working independently and collaboratively;
- to understand the purpose and value of their learning and how it is placed on a timeline of the past, present and future.

We believe that all learners should experience success across the curriculum and be allowed to develop their own interests and passions within the curriculum. Therefore, our curriculum is delivered with the understanding that all of God's children are blessed with different talents and skills, and the knowledge that there is 'something for everyone' within both core and foundation subjects. For this reason, we ensure that the same value and high standards of learning and teaching are upheld in all subjects across the curriculum. In ensuring success for all children across the curriculum, we aim that this will create confident, resilient and impassioned children who have high self-esteem as learners.

Alongside academic success, the emotional, spiritual and physical wellbeing of children is of high priority, and as such, regular and meaningful opportunities for personal development are integrated throughout the curriculum. We believe that it is our duty to educate and develop the whole child. Our PSHE and RSE curriculum has been refined to ensure that pupils build positive relationships with others, feel valued and those who are most vulnerable are identified and supported. Our curriculum has the flexibility to respond to the needs and priorities of our children and of the local area.

It is our aim that all children develop a knowledge and understanding of and take pride in the British Values of our rich and diverse society and its history. Throughout the curriculum, we present children with the experiences of a diverse range of people, through texts, key figures in different disciplines and exploring the history through a lens that is not always that of the white western experience.

We believe that successful learners are aware of the key skills and strategies of that help them to 'know more and remember more' and make progress. We developed a toolkit of fundamental characteristics of effective learning – LEARNER. These principles are explored with children and modelled within lessons by teachers, creating an ethos of 'lifelong learning' within St John Vianney Catholic Primary School.

At St John Vianney Catholic Primary School we aim to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable pupils to find, explore, analyse, exchange and present information. Children are also taught the process of logical thinking, effective problem solving, understanding algorithms and they participate in practical coding. Computing skills are a major factor in enabling children to be confident, creative and independent learners equipped with skills for the modern world. At St. John Vianney, we endeavour to ensure that children have every opportunity to enhance their lives and enjoy what computing has to offer in the modern digital world while understanding the importance of keeping safe online.

Intent of Computing
The intent of the subject of Computing at St. John Vianney is to give children:
- a varied introduction to computing skills including coding and programming
- a chance to harness and develop skills needed in the modern world such as presentation and word processing
- an understanding of how to efficiently and responsibly use the internet
- a strong knowledge of e-safety and how to keep safe on the internet
- a knowledge of cyber bullying and what to do should this occur

Our programme of study is designed to be progressive and build upon previous skills gained. There is an emphasis on developing prior learning throughout the children's time at St. John Vianney. Throughout all of this, threaded through the curriculum, is the importance of online safety and Digital Literacy. E-safety is taught in every year group from Foundation Stage and guidance is also shared with parents / carers throughout the year in the form of written communications and presentations.

Our aims:
- Children are engaged and motivated to deepen their knowledge in specific areas linked to the National Curriculum.
- Develop cross curricular links and strengthen further links with the local and wider community and global world.
- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- Use ICT and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- To develop the understanding of how to use ICT and computing safely and responsibly.

Implementation of computing
- Design and construct a varied and engaging long term plan that is ambitious and ensures the projects are linked to the National Curriculum but are also linked to the interests of the children in school.
- At St John Vianney, we teach a high quality, well thought-out computing curriculum which has cross curricular links with a range of subjects including Technology, Numeracy, Science, History, Geography and English. Computing should be engaging and exciting, therefore a broad range of resources are at the disposal of staff and children, these allow physical outcomes to be achieved. Both laptops and iPads are used by children to supplement their learning. A range of additional hardware is available to support learning across all key stages including Lego WeDo, Crumble kits as well as a range of additional equipment.
- Unplugged Computing takes place without the use of machines and technology and allows children to develop skills and knowledge without the use of digital technology.
- In Year 1 to 6, the children follow a curriculum that is progressive and challenging. There is regular revisiting of knowledge and new learning is always based on prior learning. It is regularly reviewed and adapted to consider new developments in technology and to incorporate the latest advances.
- We take internet safety extremely seriously. We have an E-Safety Policy that provides guidance for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology. Each year we take part in Safer Internet Day to further raise awareness of keeping safe and being respectful online. This includes a whole school presentation and age-appropriate activities in class.

Computing Content

Key Stage 1
By the end of key stage 1 pupils should be taught to:
- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs.

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.
- 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.

Key Stage 2

By the end of key stage 2 pupils should be taught to:
- Design and write 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; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works 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
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

EYFS

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 role play. Children gain confidence, control and language skills through opportunities to explore using non-computer-based resources such as walkie-talkie sets and CD players. In addition to this, children have access to programmable toys, interactive whiteboards, as well as age appropriate apps and software on iPads. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

Planning

We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each project. Planning ensures progression throughout the scheme of work so that the children are increasingly challenged as they move up through the school. Long term planning is compiled across a whole school basis, which is determined by the requirements of the 2014 National Curriculum and the EYFS Curriculum. Planning is monitored by the Senior Team and the Computing Champion.

The Computing curriculum in use is a bespoke curriculum taking elements from a range of sources that best suit the children's needs and requirements within our school. We use a

variety of resources that best match our curriculum, to ensure the children experience a broad and balanced Computing curriculum. Children experience a range of E-Safety modules during the Autumn term that cover a range of pertinent issues that they can relate to. Further topics include; Coding and Programming, Technology around us, Computing systems and networks, Lego WeDo 2.0, The Internet, Physical computing (Crumble) and Web page creation.

Impact
- Children are engaged and motivated to learn developing their understanding further.
- Cross curricular links are made and this, therefore, deepens the children's knowledge.
- Children understand that the presentation and quality of work is essential in all areas.
- Children at St John Vianney will be digitally literate and able to join the rest of the world on its digital platform.
- Children will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit and enjoyment, but more importantly – safely.
- The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.
- As children become more confident in their abilities in computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature of how to keep themselves safe online.

Pupils with SEN
At our school we teach Computing to all children, whatever their ability. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

Metacognition in Computing
Within all subjects at St John Vianney, teachers employ metacognitive strategies in lessons, which are based upon EEF research and guidance. In Computing, these strategies are evident within lessons, through:
- activating relevant prior knowledge from previous lessons within a Computing topic, across previous Computing topics and previous year group Computing topics (vertical curriculum links);
- activating relevant prior knowledge from other curriculum areas within the current year group (horizontal curriculum links);
- activating relevant prior knowledge from other curriculum areas and year groups (diagonal curriculum links);
- explicit instruction of Computing strategies, knowledge and skills;
- teacher modelling of Computing strategies, knowledge and skills, and effective learning behaviours in Computing;
- memorisation of Computing strategies, knowledge and skills;
- guided practice of tasks in Computing;
- independent practice of tasks in Computing;

- structured reflection upon understanding and learning behaviours, which is seen in Computing, namely through end of lesson discussion and feedback and verbal self-assessment.

Metacognition is also promoted across whole topics of work, often through whole class discussions linking back to prior knowledge and skills, encouraging children's retention of knowledge by drawing prior learning back into the working memory, building upon it and creating schemas in the long-term memory – the principle behind this being to ensure that learning is not forgotten. Children are offered opportunities in lessons to reflect on their learning and understanding, affording them an opportunity to monitor their own learning, which is important in fostering self-regulated learners.

Assessment

Teachers assess children's work in Computing by making assessments as they observe them working during lessons. They record the progress made by children against the learning objectives (I can statements) for their lessons. Once the children complete a unit of work, we make a summary judgement of the work of each pupil in relation to the National Curriculum levels of attainment.

Teachers record this information and use it to plan the future work of each child. These records also enable the teacher to make an overall assessment of progress for each child, as part of the child's annual report to parents. The teacher passes this information on to the next teacher at the end of each year.

Monitoring

The Computing subject champion is responsible for monitoring the standard of the children's work and the quality of teaching in Computing. The Computing subject champion is also responsible for supporting colleagues in the teaching of Computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. The Computing subject champion gives the headteacher an annual audit in which she/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. We allocate specific time for the vital task of reviewing samples of children's work, talking to the children about Computing and for visiting classes to observe teaching in the subject. These tasks are carried out at least three times a year, with staff being given dedicated time out of class to support this.

Equal Opportunities

We are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability, in line with the School Policy for Equal Opportunities.

Supporting Documents

This policy is to be read in conjunction with and used alongside the subject 3I statement and where appropriate the End of Year expectation document.

Headteacher's signature _____

Computing Lead's signature _____

Chair of Governor's signature _____

Date: Governor approval 30th November 2023

Renewal time frame: Revisited every two years