Curriculum Intent, Implementation and Impact Statement

Computing

Intent

At St Charles Borromeo we have designed a curriculum which we believe will prepare our children for life beyond primary school. Everything we do is underpinned by our Gospel values and ethos, with 4 key words highlighting our learning journey through school, namely:

Grow, Learn, Work, Follow

We will **grow** in our Catholic faith by praying and worshipping together.

We will work hard so that we can **learn** and be the best that we can be.

We will **work** together in our families, school, and parish, and with those both near and far, to make our world a better place for us all.

We will **follow** the example of Jesus and his teachings in all that we say and do.

Our aim is for all of our children to:

- **Grow** to be confident, inquisitive and reflective learners who take risks and persevere
- **Learn** to be respectful and tolerant children who are kind to themselves and others, so that they can be the best that they can be
- **Work** independently and collaboratively with self-discipline and resilience

- **Follow** the example of Jesus to live out our faith and values in an ever changing world

At St Charles Borromeo we want children to become autonomous users of computing technologies, gaining confidence and enjoyment from their activities. We want the use of technology to support and challenge learning across the entire curriculum and to ensure that our curriculum is accessible to every child. Not only do we want them to be digitally literate and competent end-users of technology but through our computer science lessons we want

them to develop creativity, resilience, problem-solving and critical thinking skills. We want our pupils to have a breadth of experience to develop their understanding of themselves as individuals within their community but also as members of a wider global community and as responsible digital citizens.

Our curriculum design has deep links with mathematics, science, and design and technology. At the core of our computing curriculum 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, we intend for our children to use information technology to create programs, systems and a range of content. We aim to ensure that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology to enable them to be active participants in a digital world.

Therefore, we want to model and educate our pupils on how to use technology purposefully, responsibly and safely. We want our pupils to become independent creators of technology and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we model positive use of technology consistently. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. We recognise that technology can allow pupils to collaborate in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skilful computer scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible.

Implementation
At St Charles the computing curriculum is delivered through our own scheme of work. Every lesson in our scheme has been individually planned so that resources can be effectively used to teach using the infrastructure we have in place at school and so that it can meet the needs of all our pupils. Our scheme has been closely referenced against the 2014 National Curriculum attainment

targets in order to ensure progression and coverage. We teach in discreet weekly lessons from year 1 to 6, enabling the children to develop depth in their knowledge and skills over the duration of each of their computing topics. Where appropriate, meaningful links will be made between the computing curriculum and the wider curriculum. In computing lessons the children will use either an iPads or a laptops in their own classroom in order to access a range of apps and software. Discreet computing lessons will focus on the curriculum skills of information technology, digital literacy and computer science. Children's progress will be assessed using teacher observations and a class portfolio. Children are supported to work at an appropriate level of challenge and encouraged to support each other. Learning is reviewed constantly and they will be given feedback and ways to improve their work verbally. The introduction of Digital leaders enable the promotion of this subject and fostering of enthusiasm and excellence, as well as allowing for pupil voice to have an impact on the curriculum.

At St Charles, we understand that internet safety is extremely important. We have an online Safety Policy that provides guidance for teachers and children about how to use the internet safely. The children participate in regular online safety lessons and each year we highlight this learning by taking part in the National initiative of Safer Internet Day and children understand how to stay safe when using technology.

Our aim for the end of KS2 is for all pupils to achieve across the 3 strand of computing:

Information Technology	Computer science	Digital Literacy
- word processing skills - Keyboard and presentation skills - Data handling - Touch typing - Presentations and audience - Internet research	- Computational thinking - programming - Beebots, Logo , scratch, Kodu, Python - Computer Networks	- Online relationships - Online image and identity - Online reputation - Online bullying (anti bullying week) - Managing online information - Health, wellbeing and lifestyle - Privacy and security - Copyright and ownership

• Computer drawing and art • Animation		• Verifying the accuracy and reliability of information found online • Identify trusted adults in their lives • Understand what is personal information and when it is unsafe to share • Understand how to report a concern • Understand that not everything found online is accurate • Create a personal profile without revealing identity • Understand what is cyber bullying • Understand appropriate language when communicating online • Understand safe/unsafe behaviours online

Impact

We want our children to enjoy and value the curriculum we deliver and discuss, reflect and appreciate the impact computing has on their learning, development and well-being. Finding the right balance with technology is key to an effective education and a healthy life-style.

Our Computing curriculum is high quality, well thought out and is planned to demonstrate progression. <mark>If children are keeping up with the curriculum, they are deemed to be making good or better progress.</mark> In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes
- Children can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation;

- Children can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems;
- Children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems;
- Children are responsible, competent, confident and creative users of information and communication technology.
- A celebration of learning for each term which demonstrates progression across the school;
- Pupil discussions about their learning;