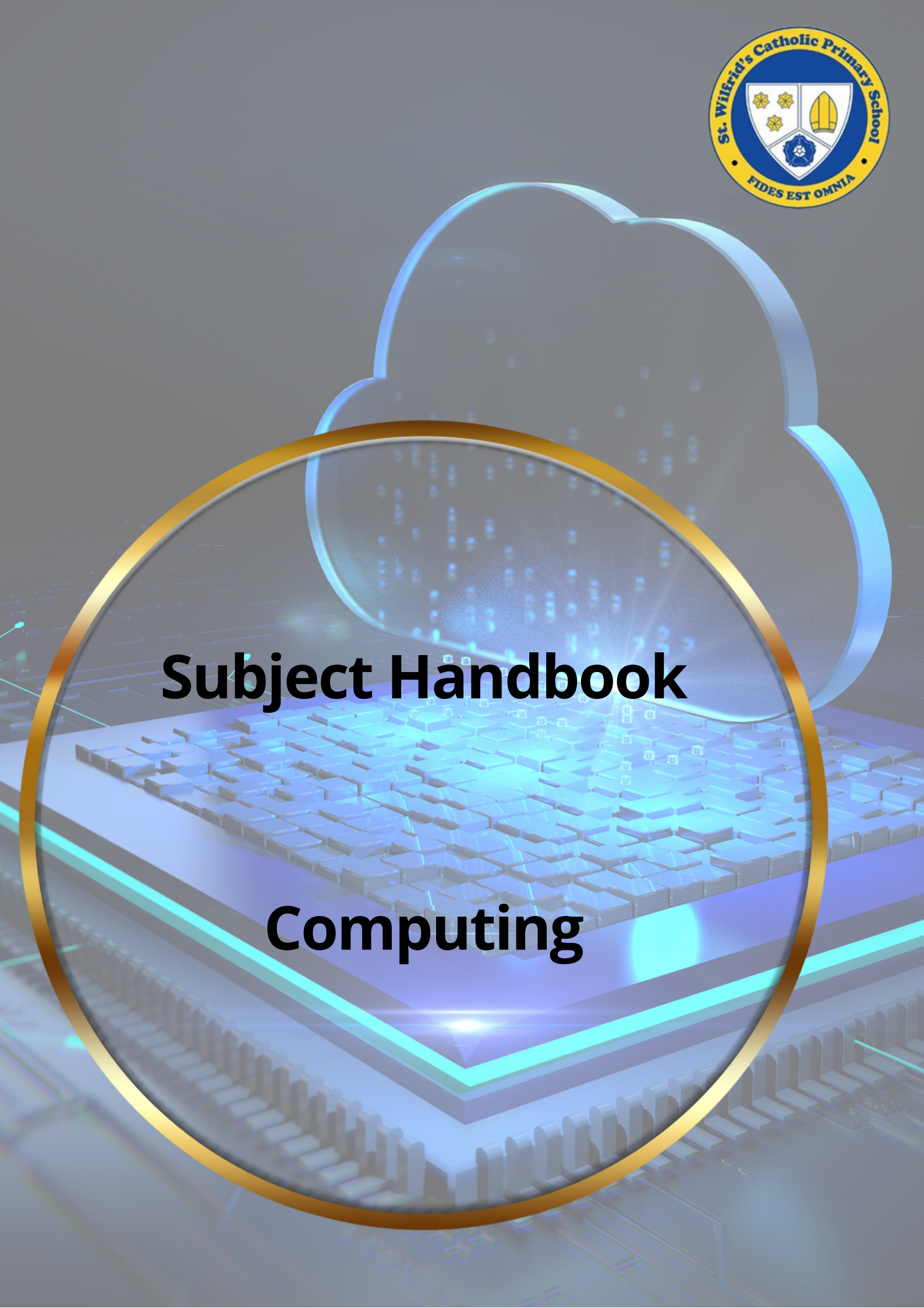
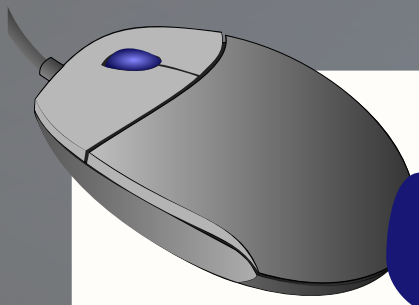
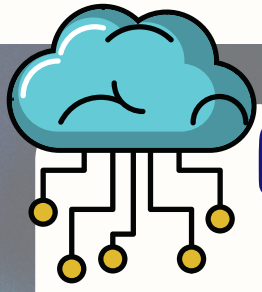


Subject Handbook

Computing



Computing Handbook



Vision for Computing

Our Computing curriculum addresses the challenges and opportunities offered by the technologically rich world in which we live. Across the key stages we ensure coverage of the national curriculum expectations. Following a clear progression of skills throughout the school, there are opportunities for children to solve problems, create online games and create videos.

Our Computing Curriculum

Our Computing curriculum is well planned and sequenced through a spiral curriculum that builds upon what has gone before and prepares pupils for what comes next.

The units from year to year have been sequenced to include the consolidation and extension of skills and knowledge.

Key learning outcomes are identified for each unit to explain what pupils need to know about the current topic to ensure that they are prepared to understand and succeed in the next topic.

Our Computing Curriculum Will Enable Pupils to:

- Use and express and develop their ideas through, information and communication technology
- Create simple algorithms and programmes
- Debug programming errors
- Create, store, manipulate and retrieve digital content using a mixture of word processing, paint packages, digital photography and video packages
- Be aware of their responsibilities online and know what to do if they have any concerns
- Know how information is stored on computers and how it travels, connecting people across the world through the use of the World Wide Web
- Explain their thinking behind their programmes
- Explore how search engines work
- Consider how their online actions can impact on others
- Know when and how to report an online concern
- Create computer games
- Use technology safely and respectfully
- Use logical reasoning to predict the behaviour of simple programs
- Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Intent

The goal of the computing curriculum at St Wilfrid's Catholic Primary School is to provide our children with vital skills that will follow them to their adult life. Our aim is to help children become capable users of technology. This entails providing them with the skillset to use technology to aid their lives socially, in their education, and – eventually – the workplace.

As well as our children becoming adept technology users and becoming responsible digital citizens, we want to encourage our children to understand that computing involves far more than just computers. We want them to understand that, through computational thinking, they can develop their creativity, become better at problem-solving through abstraction and become critical thinkers.

Implementation

At St. Wilfrid's Catholic Primary School, we provide our computing curriculum in a variety of ways. The majority of our computing learning comes in the form of discrete computing lessons, which are provided by STEM Days, a specialist Computing Company. Every taught lesson is planned to ensure that children experience a natural progression of skills which are built upon year after year and ensure they are given opportunities to experience a broad range of software. They are also planned to meet the needs of all pupils in our schools, and to ensure that all of our pupils can achieve all of the objectives outlined in the National Curriculum.

Much of our e-Safety curriculum will also be taught through discrete computing lessons but will also be incorporated into other lessons as appropriate. We also aim to provide cross-curricular activities that utilise computing, such as using technology to make recordings in science experiments, or by using online manipulatives to help children understand number in maths.

On top of this, children will also experience using Chromebooks and tablet computers, both in their Computing lessons and through cross-curricular activities in lessons such as maths or English. This results in a more thorough understanding of how different operating systems and devices function as well as providing opportunities for collaborative work.

Impact

Our curriculum is planned to help our students expand on their knowledge and skillsets within the computing curriculum, and demonstrate steady progression over time. Where children are able to keep up with the objectives outlined in their year group's plans, they are deemed to be making expected or above expected progress.

We also rely on a variety of other methods to measure the success of our computing curriculum:

- Children understand the three different branches of computing – computer science, information technology (IT) and digital literacy – and have an understand of the differences between all three.
- Children can utilise the underlying principles of computer science, including abstraction, logic, algorithms and data representation in a wide array of different applications.
- Children can make use of technology to come up with solutions for problems they face in day-to-day life.
- Children can responsibly and competently utilise a variety of information and communication technology for a range of purposes.

Assessment

Assessment allows teachers to make live judgements about children's learning. Individual lessons are saved and can be accessed using pupils logins to BGFL and Purple Mash by all teachers to identify any children who have not met the learning objective. Termly Computing progress meetings ensure that all staff are aware of pupils attainment and progress in computing.