



English Martyrs' Catholic Voluntary Academy Computing and Online Safety Subject Policy



Date of issue: September 2020

Date of review: September 2021

“At English Martyrs’ Catholic Voluntary Academy, we offer a broad-based curriculum which promotes the spiritual, moral, cultural and physical development of our pupils and prepares them for the opportunities, responsibilities and experiences of adult life.”

Statutory Requirements

Computing is a statutory subject of the National Curriculum (2014) and the statements from the programmes of study for Key Stages 1 and 2 are comprehensively covered throughout the English Martyrs’ Computing curriculum. The computing Long Term plans set out the coverage of these statements as well as the coverage of the three strands of the computing curriculum: Computer Science, Digital Literacy and Information Technology.

Our statement of Intent for Computing

Most importantly, our computing curriculum is underpinned by a clear focus on our duty to **safeguard** the wellbeing of all our pupils. It is important that computing is delivered within a safe, secure and supportive learning environment, where discussion is encouraged and questions/concerns can be sensitively addressed. Ground rules may be established within the classroom, particularly in online safety lessons where sensitive topics may be discussed. Online safety is central to and woven throughout the curriculum and use of technologies by both pupils and staff at English Martyrs’. Our Online Safety policy outlines further information about how we do this.

In line with the National Curriculum (2014), English Martyrs’ ensures that a high-quality computing education that inspires our pupils’ curiosity to use creativity to **understand and change the world**. It will help equip pupils to become **effective and safe users of technology**. The three strands of primary computing equip our pupils with varying skills. Computer science allows pupils to understand how digital systems work and apply this through programming. Information technology allows the children to create a



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range of content. Digital literacy means that pupils are able to use, 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**. Through our computing curriculum, pupils to understand the importance of using technology **safely and respectfully**, the rapid changes in technology, the **diversity and relationships between different computer users**, as well as **their own online identity** and the **challenges of their time**.

English Martyrs' aims for every child to experience an **individual learning journey** in computing and online safety, in order that they make excellent progress from whatever their starting point may be. Computing is one of our 'Enhancer Subjects' at English Martyrs' - meaning that it supports the 'Driver Subject' and enriches learning across the termly topics throughout the school. The strong links with other curriculum areas such as maths, science and design technology also allow for **cross-curricular links**. The termly topics which computing enhances are guided by the National Curriculum and are shaped to explore the children's interests.

Computing as a school, and as a community, is **celebrated** regularly. We have a team of five year 6 'Online Safety guardians' who work with subject leader to ensure that computing has a high profile within school as well as leading Online Safety assemblies. We also celebrate local and national events including Safer Internet Day and Anti-Bullying week (where online safety has a cyber-bullying focus). Through all of this, our children form an inspiring and stimulating connection between their learning at school and how to participate effectively and safely in our digital world.

Computing in EYFS

The 'Technology' strand of the 'Understanding of the World' area of learning in the EYFS curriculum is now no longer statutory but will continue to be taught at English Martyrs' alongside Online Safety lessons. Using the indoor and outdoor environments children are encouraged to play, observe, explore and investigate a range of technology that we use at home and in the workplace. Exploring different technologies that are used in the world around us makes a significant contribution to developing a child's knowledge and understanding of the world and prepares them for computing lessons as part of the National Curriculum in KS1.

Our Implementation: Teaching and Learning in Computing

Computing is often one of our "enhancing" subjects in order to answer for the overall question of the topic. Our teaching in computing equips pupils to think logically and critically, solve problems and develop self-evaluation skills. In addition to computing lessons, online safety lessons are delivered explicitly so that children have a clear differentiation between these two curriculum areas.

To ensure pupils have access to all the most relevant and up to date content, we have used the 'Teach Computing' programme, provided by the National Centre for Computing Education, as a basis for our computing curriculum. Each phase (KS1, LKS2, UKS2) will focus on one of the four units from the programme of study every half term. These are:



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- Computing systems and networks (1 unit)
- Creating Media (2 units)
- Data and Information (1 unit)
- Programming (2 units)

For online safety lessons, the whole school will focus on one of the eight areas of online safety covered in the 'Education for a Connected World' document (DfE, 2020). These are:

1. Self-image and Identity
2. Online relationships
3. Online reputation
4. Online bullying
5. Managing online information
6. Health, wellbeing and lifestyle
7. Privacy and security
8. Copyright and ownership

The computing subject leader has worked with teachers and phase leaders to align the computing units with the wider curriculum topics where possible, to encourage children to see cross-curricular links and to maintain a creative balance of the curriculum. The online safety units have been ordered by the subject leader and SLT to align with certain parts of the academic year. This order of units is set out in the computing long term plans and ensures the coverage of the three strands of the computing curriculum. The subject leader has a thorough knowledge of the skills which are linked across the year groups and are therefore non-negotiable in order for children to make connections and build on prior knowledge. The subject leader has also identified new knowledge or "sticky knowledge" which must be purposefully taught and learnt in each year group. These knowledge and skills can be found on the computing progression sheet.

In order to ensure an individual learning journey, pre-learns are used to ascertain every child's prior knowledge and skills before each computing unit. Teachers then adapt plans accordingly to support every child being challenged at the 'leading edge' of their learning. Using the progression sheets and the Teach Computing resources, 'Knowledge Mats' are produced at the start of each topic, as well as fortnightly 'Knowledge and Skills sheets' for the teaching of computing.

The practical nature of the subject means that our evidencing of 'plugged' computing takes place through the use of an online journal on SeeSaw, as well as in the children's topic books for any 'unplugged' computing evidence.

At English Martyrs', we develop children to become computational thinkers. We achieve this by the teaching the computational thinking concepts and approaches explicitly in lessons and providing the children with multiple opportunities to apply these.

COMPUTING CONCEPTS

- Evaluation (making judgements),
- Abstraction (removing unnecessary detail)
- Decomposition (breaking down in to parts)
- Algorithms (making steps and rules)
- Logic (predicting and analysing)



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- Decomposition (breaking down in to parts)
- Patterns (spotting and using similarities)

COMPUTING APPROACHES

- Creating (designing and making)
- Persevering (keeping going)
- Collaborating (working together)
- Tinkering (changing things to see what happens),
- Creating (designing and making)
- Debugging (finding and fixing errors), Persevering (keeping going)

Varying teaching methods are adopted to suit a range of learning styles and resources are provided in order that all children are able to access learning in computing, irrespective of their starting points or additional needs. Some specific teaching strategies for computing include the use of Parson's Problems, the PRIMM model and physical programming.

Our Impact in Computing

The impact of our computing curriculum is that we prepare children to be digitally-literate in an ever changing world of technology. Children will have a strong knowledge and understanding of computer programs, be able to solve problems using computational thinking as well as building resilience by learning from their mistakes, for example when writing and debugging codes.

We have self-evaluated our outcomes as Outstanding in computing for the following reasons: The vast majority of pupils are working at ARE or GDS in computing, with all year groups making progress throughout the academic year. Pupils can articulate their knowledge and understanding of computing skills and how to stay safe online in a clear and consistent manner, appropriate for their age. This is consistently evident in their work produced.

Termly work scrutiny on Seesaw and in books by the subject leader ensures that teachers have correctly identified vulnerable groups or focus children in each year group to allow for interventions to take place in order for these pupils to make rapid progress. Interventions for vulnerable groups such as SEND, EAL and Pupil Premium pupils are a strength of the school.

Assessment

Computing is assessed using teacher judgements through observation of children's involvement and their produced outcome in lessons. Teachers make an assessment of the children's progression in alignment with the outcomes of the National Curriculum for their specific Key Stage and Year Group/s and highlight the child's skills sheet accordingly. This skills sheet then becomes a working record of the child's achievements and progress to date.

Within lessons, the feed forward policy is used and is applied in both written work and on evidence stored on Seesaw.

The use of INSIGHT for computing has also been introduced, so that teachers have a long term record of children's attainment and are able to track these across year groups.



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Monitoring and Review

Under the SLT, the Subject Leader will regularly monitor children's work and of the quality of teaching and learning in computing. The role of the subject leader involves supporting colleagues, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Monitoring will be carried out through a combination of the following:

- Learning walks
- Seesaw/Book scrutinies
- Environment checks (displays, skills boards, key vocabulary etc)
- Pupil voice meetings
- Staff interviews/questionnaires

Computing and the 5 Levers of the Recovery Curriculum

1) Relationships

Building positive relationships online and when using online communication platforms. Remote learning has encouraged an excellent working relationship between teachers and pupils online.

2) Community

Recent lockdowns have shown how strong our school community is in trying times. Even when our school building closes, we can continue to participate in and benefit from our school community working online.

3) Transparent Curriculum

The children have seen the importance of being a competent computer user throughout their working lives (both at school and beyond) and so they understand the importance of the computing curriculum.

4) Metacognition

The teaching and application of the computational thinking concepts and approaches allows children to think about their learning in computing and how they approach different problems. This is also transferred to other subjects where they require any problem solving.

5) Space

Children have the right to access safe spaces online. Children have had increased exposure and opportunities to work digitally over the school closures in a safe and meaningful online environment.

Policy written by – Nicola Lawrence, Computing Subject Leader, September 2020

Updated by – Lisa Oldershaw, Computing Subject Leader, September 2021

