

## Computing Curriculum

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### Intent

Computing at Iqra Primary School intends to develop ‘thinkers of the future’ through a modern, ambitious and relevant education in computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Our aim is to provide a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Beyond teaching computing discreetly, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum.

## Implementation

**Our Computing scheme of work** is adapted from the 'Teach Computing' Curriculum, which covers all aspects of the National Curriculum. This scheme was selected because it was created by subject experts and is grounded in the latest pedagogical research. It features an innovative progression framework where computing content—concepts, knowledge, skills, and objectives—are organised into interconnected networks called learning graphs.

The curriculum equips young learners with the knowledge, skills, and understanding needed to succeed in today's digital world and beyond. It is divided into three key strands: computer science, information technology, and digital literacy, with the curriculum's goals aligned to reflect these distinctions.

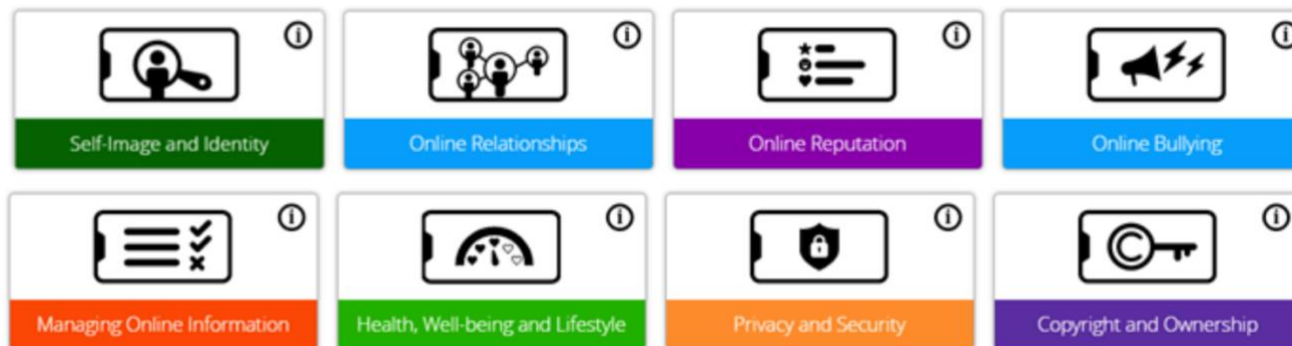
According to the National Curriculum for computing, our pupils will:

- Understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms, and data representation (Computer Science).
- Analyse problems in computational terms and gain repeated practical experience writing programs to solve such problems (Computer Science).
- Evaluate and apply information technology, including new or unfamiliar technologies, to solve problems analytically (Information Technology).
- Become responsible, competent, confident, and creative users of information and communication technology (Digital Literacy).

### E-Safety and Digital Citizenship

A key aspect of our computing curriculum implementation is ensuring the safety of our pupils. We take online safety seriously and strive to equip children with the skills needed to protect themselves in digital spaces. Every child has the right to enjoy their online experiences, access safe environments, and benefit from the opportunities a connected world offers, tailored to their age and developmental stage.

We help children build online resilience using the **'Project Evolve – Education for a Connected World'** framework. This framework broadens and strengthens online safety education, fostering empowerment, resilience, and positive cultural change. The objectives focus on promoting safe, appropriate long-term online behaviours while supporting educators in shaping a culture of online safety within our school and beyond. Within each year group topics include:



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To support the implementation of our computing curriculum, we provide teachers with a variety of hardware, ensuring access to essential tools for teaching digital skills:

- An ICT suite equipped with 32 computers
- 60 iPads in 2 trolleys which can be used in classrooms
- 30 Bee bots
- 30 Sphero bolts
- Professional Podcast recording equipment
- Rodeocaster
- 3 Professional photography cameras with tripods
- 2 Professional filming lights on tripods
- A class set of VR headsets and teacher tablet. (30)

Additionally, each classroom is equipped with:

- A visualiser
- An interactive whiteboard

**Links with our Local Computing Hub** (Langley Grammar School) allow us to loan out equipment such as Crumble kits, micro: bits as and when we require them.

This range of hardware helps create an engaging and resource-rich environment for both teachers and students, allowing for hands-on learning and practical application of computing concepts.

## Impact

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want our pupils to 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 lifestyle. We feel the way we implement computing helps pupils realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this. The way pupils' showcase, share, celebrate and publish their work best shows the impact of our curriculum. Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes.

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Teachers will use a range of assessment tools to provide adequate information to show the progress for each child and their development points.

This includes:

- Assessment for learning
- Challenge tasks
- Enquiry tasks
- Quizzing, multiple choice and end of unit questions.
- Pupil voice