

## **Tollerton Primary School**

### **Computing Curriculum Rationale**

At Tollerton Primary School, we understand the immense value that technology plays not only in the curriculum, but in children's lives beyond school. As such, we aim that our Computing curriculum not only teaches subject-specific concepts, but that it supports children's learning across the curriculum and prepares them for living in a digital, interconnected world. Our aim is to provide a broad and balanced curriculum whilst ensuring that pupils become digitally literate and digitally resilient. Technology is ever evolving and we aim to develop pupils who can use, express themselves, and develop their ideas through information and communication technology at a suitable level for the future workplace and as active participants in a digital world.

Our Computing curriculum is taught and learned through three key Elements: Computer Science, Information Technology and Digital Literacy. Each of these Elements is studied by each year group in school, and thus as children progress through the school they build upon the knowledge and skills gained in previous year groups, and thus deepen their understanding of each Element.

Our Computing Curriculum is delivered through the Purple Mash scheme of work and programs. This ensures that there is clear progression of the curriculum throughout school, and enables children to become familiar with programs and resources used in their learning. Throughout their school life, pupils will revisit and build upon specific learning under each of the three Elements so that they build on established skills whilst also embedding previous concepts. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases, Communication networks, animation and online safety.

The key aims of our Computing curriculum are to develop pupils who:

- Are responsible, competent, confident and creative users of information and communication technology.
- Know how to keep themselves safe whilst using technology and on the internet and be able to minimise risk to themselves and others.
- Become responsible, respectful and competent users of data, information and communication technology.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Can analyse problems in computational terms, and have repeated practical experience writing computer programs in order to solve such problems.
- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Become digitally literate and are active participants in a digital world.
- Are equipped with the capability to use technology throughout their lives.
- Understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Have a 'can do' attitude when engaging with technology and its associated resources.
- Utilise computational thinking beyond the Computing curriculum.
- Understand and follow the SMART E-Safety rules.
- Understand the E-Safety messages can keep them safe online.
- Know who to contact if they have concerns.
- Apply their learning in a range of contexts, e.g. at school and at home.

It is our aim that our Computing Curriculum is inclusive and that all children develop their learning under the three Elements in order to be prepared not only for the secondary school curriculum but also for the digital world in which they live. Where pupils have additional learning needs, the curriculum may be adapted so as to support those children to acquire the key knowledge that they need.

Computing lessons may use of a range of technology available to us in school, which includes PCs, iPads, laptops, bee-bots, and cameras.

Computing and safeguarding go hand in hand and so we aim to put a lot of emphasis on internet safety inside and outside of the classroom. Additional to all pupils studying online safety units through their computing lessons, every year we take part in Safer Internet Day in February. Internet Safety assemblies are held as well as parent internet safety workshops.