Intent

At Pitmaston, we recognise that advances in technology have become an integral part of everyday life. Through teaching Computing, we equip the children with the skills and understanding needed to participate in an ever-changing digital world, where their future careers and leisure activities are increasingly transformed by technology.

It is our intention to enable children to use technology to find, explore, analyse, exchange and present information. We aim to expose our children with a wide range of activities which allow them to become confident, creative and independent learners; solving problems and becoming competent 'Computational Thinkers' so that they leave school computer literate. Here at Pitmaston, we understand that equipping children through computing has deep links with other subjects and this is embedded consistently across school. At Pitmaston, we understand the importance of computing to access learning, gain independence and enable pupils to leave school as active participants in our digital world.

The new National Curriculum defines three areas of the Computing curriculum, which are taught explicitly within computing lessons and across other areas of the broader curriculum: Computer Science (CS), Information Technology (IT) and Digital Literacy (DL). From the Foundation Stage to Year 6, the children are given opportunities to develop their substantive and disciplinary knowledge and understanding in each of these areas. Our high quality education enables pupils to use computational thinking and creativity to understand and change the world.

Implementation

From the Early Years (Nursery and Reception) at Pitmaston, we deliver the Computing Curriculum, focusing on the 'unplugged approach' for Computational Thinking in the Early Years and the National Curriculum from Year 1 to Year 6. We follow an innovative progression framework from the National Centre for Computing Education called the 'Teach Computing Curriculum.' This has been thoroughly tested by teachers, created by experts and grounded in the latest research. The curriculum strands are **Computer Science**; algorithms and programming, data and systems, **Information Technology**; digital artefacts and computing contexts and **Digital Literacy;** mechanics, searching/selecting information and Online Safety. Cross-curricular opportunities are identified in order to ascertain links between termly topics and to ensure that Computing is not just seen as a standalone subject. We deliver our curriculum through weekly computing lessons in the computing suite as well as across other subjects using IPads and laptops. We deliver monthly online safety lessons, where each class is provided with age appropriate texts and tasks.

In order to achieve the outlined intentions, the Computing curriculum at Pitmaston is reviewed through subject monitoring by the Subject Leader and Senior Leadership Team at Pitmaston. The small team of experienced teachers, deliver the progressive curriculum from Year 1 to Year 6 demonstrating a high level of enthusiasm for the subject content and their high expectations of all the pupils. The computing curriculum has been written with the three core areas of Computing in mind:

- **Computer Science** – the understanding of coding and programming across a range of physical devices and digital resources.

- **Information Technology** – the range of skills required to operate and manipulate specific programs, systems, and content.

- **Digital Literacy** – the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.

In our teaching of Computing at Pitmaston, we endeavour to expose students to a variety of software, programs, and equipment in order to offer a range of appropriate experiences. As a school we are well resourced with up to date technology in the classrooms, the computing suite, which is enhanced with multiple sets of IPads and laptops to support cross-curricular learning. Staff are provided with selected devices, which they can explore within their

classrooms. Specific vocabulary for each year group is outlined in the 'substantive knowledge progression ladder' and this is regularly modelled by teachers within their lessons. Spaced repetition within the curriculum allows pupils to develop their recall of substantive knowledge and ensures that each year group works on at least one aspect of each the three areas of Computing. In addition to this, our disciplinary knowledge ladder outlines the skills progression from EYFS to Year 6 and this will enable them to access computing differently as they progress.

Impact

Within Computing we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. Teachers assess individual pupils half-termly, identifying whether they are working towards, at or above age related expectations. The teachers and the computing subject lead analyse this data to identify gaps in learning and adapt the curriculum to meet the needs of all pupils, including those with additional needs. The majority of pupils with SEND at Pitmaston, access the computing curriculum with little adaptations, but where necessary, these are made accordingly. Pupils working at greater depth in computing are identified as digital leaders and provide support during clubs and lessons for pupils and teachers.

In order to demonstrate that we have accomplished the aims listed below at Pitmaston Primary, we will constantly ask ourselves and the children: Why? What is the purpose behind this learning?

Throughout their learning journey at Pitmaston Primary School, we ensure that all pupils are:

- Enthusiastic and confident in their approach towards Computing.
- Able to present as competent and adaptable 'Computational Thinkers' who are able to use identified concepts and approaches in all of their learning.
- Secure in their understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Able to transition to secondary school with a keen interest in the continued learning of this subject.

Pupils showcase, share, celebrate and publish their work at Pitmaston, which demonstrates the levels of enjoyment, success and impact of our computing curriculum.