Computing

Intent

The curriculum intent for computing is firmly rooted in our school desire to give all children strong foundations from which they may become **successful, independent learners for life** and is centred around our school values of **independence, co-operation, respect, responsibility, resilience and ambition.**

Living in an ever-advancing technological world, our inclusive computing curriculum **inspires** and equips pupils with **meaningful** skills to gain independence and confidence in computational thinking, presenting information and digital literacy. Through the teaching and learning of technology across the curriculum, rich links are utilised across all subjects to ensure children actively engage in purposeful, cross curricular learning to ensure our children will be able to **independently flourish in a complex world.** Computing lessons strive to embed equality and diversity by creating teaching and learning environments which take into account the context of our learners, bridges the digital divide, creates pathways to technology-based careers and includes British values.

The end points are defined in the National Curriculum at the end of KS1 and end of KS2. At Parklands, we have defined the end points for each year group to aid the assessment process and ensure knowledge and skills develop well, in sequence within units of work and over time across different themes.

We aim to ensure that all pupils:

• can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
• can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
• can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
• are responsible, competent, confident and creative users of information and communication technology.

Implementation

• Computing is taught through focus weeks each half term and within all subjects where appropriate.
• Computing lessons follow the DFE 'Teach Computing' scheme of work.
• Teach Computing provides a clear progression of skills within and across year groups that has been adapted to suit the needs of our pupils.
• Computer science is taught discretely during a computing focus week and always begins with paper based, practical and theory-based lessons prior to application.
• Computer and iPad software is kept up to date with the latest computer science programs necessary for the scheme taught.
• Computer science is taught from Early Years to year 6.

- Vocabulary is displayed in classrooms during each aspect of computing.
- Pupils have access to a range of devices including iPads, laptops and beebots.
- E-safety is taught at the start of the year and subsequently throughout each computing topic taught.
- Pupils take part in 'Safer Internet day' where specific focus activities are taught.
- External visitors are utilised to support the teaching of digital literacy.
- CPD is provided to all staff to enhance and support computing teaching.
- Educational visits are planned to support digital literacy (Safety Central).
- PSHE lessons include aspects of digital literacy during the year.
- Information and communication technology links are made across the curriculum to enhance pupil engagement in a subject.
- Teachers utilise cross curricular links to ensure pupils make cognitive links to learning.
- In EYFS, teachers provide opportunities for children to become technologically aware through structured play and directed teaching sessions both indoors and outdoors.
- EYFS Teachers will provide a range of computing experiences that encourage the use of technology across continuous provision.

Impact

By the time our pupils leave Parklands they:

- Use technology confidently to accomplish goals both at home and in school.
- Understand the relevance and importance of staying safe online and are competent and safe users of technology.
- See themselves as current and future creators of technology as well as consumers.
- Are equipped with the skills in digital media to present learning creatively
- Apply the fundamental principles of computer science and computational thinking to solve problems.
- Articulate their knowledge of computing and have a breadth of vocabulary to draw upon.
- Achieve age related expectations in the subject.
- Progress to key stage 3 with the confidence, knowledge and skills to continue their computing education.