Computing Subject Statement

Showing our love through kindness, determination and curiosity; strengthening ourselves and our community.

Intent

We aim to prepare our pupils for their future by giving them the opportunities to gain knowledge and develop skills that will prepare them for an ever-changing digital world. The ability to communicate digitally has become an important life skill in the modern world. We want our pupils to be curious, independent learners who are able to use technology to communicate safely and adeptly. When teaching computing, we aim to equip our children with the skills required to use computers effectively to enable them to maximize their potential. To do so, we deploy teaching strategies through the Purple Mash scheme of work that promotes resilience, independence, critical thinking, communication skills and problem solving. We deliver a broad curriculum which helps children to enjoy learning within a progressive sequence. We want our pupils to understand that there is always a choice when accessing technology, and as a school, in particular with 'social media' - we aim to model positive use. We understand that preventative methods of online/social media misuse can be addressed through education. We recognize that computing unlocks pathways for children to be curious individuals and is a powerful communication tool in the modern world.

Implementation

We use Purple Mash as a cohesive scheme of work addressing the statutory aspects of the National Curriculum. Computing is branched into three aspects: Computer Science; Information Technology; and Digital Literacy, so that our pupils are set a relevant, challenging continuum of age-related skills and knowledge. This also ensures consistency and progression across the school. Units cover a broad range of aspects including databases, spreadsheets, coding, email and online safety. The children are then given one lesson of computing learning a week.

During their time at Long WIttenham children will be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration.
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.

- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analyzing, evaluating, and presenting data and information.
- Understand and apply the SMART E-safety rules whenever they are online.
- Understand that E-Safety rules keep them safe when online.
- Know what to do / who to speak to if they feel unsafe or have concerns.

Impact
The implementation of our comprehensive computing curriculum at Long Wittenham School promises to empower our children with vital skills and knowledge essential for navigating the digital landscape responsibly. Beyond simply mastering technology, our students will develop a profound understanding of online safety, ensuring they can harness the internet's vast resources securely. As they grow in confidence within the realm of computing, our children will naturally integrate critical life skills like problem-solving, logical thinking, and self-evaluation into their everyday lives, fostering independence and resilience. Our ultimate aim is to cultivate a generation of digitally literate individuals who not only thrive in the digital age but also uphold the values of safety and responsibility online.