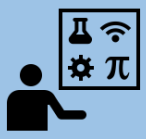

**STEM**

Through high-quality engaging experiences, we aim to prepare our pupils to thrive in a highly complex world. Pupils will be competent across Mathematics, Science and Computing; they will be able to understand and prepare research and investigate questions they will face in their futures. Teachers will provide an imaginative curriculum to encourage children's curiosity and expose them to the wonders of the world. Opportunities will be given to pupils to enable them to work collaboratively to problem solve in a meaningful real-life context.

Maths

Computing

Science

Forest School

## Computing

### Our Vision

Computing equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

### Our Aims

Using the Programmes of Study from the National Curriculum, it is our aim to prepare our children for life in an increasingly digital world. The National Curriculum for Computing aims to ensure that all children:

- 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.

**We believe in a holistic approach to computing and will provide opportunities for pupils to learn and discover the joy of computing both on and offline; and in the real and virtual world.**

| **Online Safety** | |
|---|---|
|  | Children will use technology safely, respectfully and responsibly. They will keep personal information private; recognise acceptable and unacceptable behaviour; know where to go for help and support when they have concerns about online content and contact. |

**Knowledge**

| **Networks** | |
|---|---|
|  | Children will be able to understand uses of information technology in the wider world. They will understand computer networks including the internet and the opportunities these networks offer for communication and collaboration. |

**Skills**

| **Creating digital content** | |
|---|---|
|  | Children at Langshott are given opportunities to use technology across the curriculum. They are taught to create, organise, store, manipulate and retrieve digital content.<br>Children have access to digital devices which allow them apply learning from across the curriculum. They will be able to collect, analyse, evaluate and present data and information in creative ways. |
| **Programming and debugging** | |
|  | Children at Langshott will be able to understand what algorithms and how they are used. Children will be able to design write and debug programs that accomplish specific goals. They will solve problems by breaking them down into smaller parts. |