

## COMPUTING INTENT

Our Computing Curriculum develops 'thinkers of the future' through a modern, ambitious and relevant education in computing. 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. Pupils apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.

It is important that pupils understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future. The curriculum is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Pupils analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems. Our curriculum has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. It also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

The curriculum content builds progressively through the themes of:

- **computer science**
- **information technology**
- **digital literacy**

Pupils develop:

- '**substantive knowledge**', which is the knowledge and **subject-specific vocabulary** concerning programming syntax, multi-media design, features of unreliable content
- '**disciplinary knowledge**', is the know-how to apply substantive knowledge. This might include performing binary addition; applying conditional formatting; performing an advanced web search.

### Online Safety

Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want pupils to develop as respectful, responsible and confident users of technology, aware of the measures that can be taken to keep themselves and others safe online. Pupils are taught how to keep personal information private; how to recognise acceptable/unacceptable behaviour and how to identify and report concerns about content and contacts on the internet and other online technologies.

We promote the **moral development** of pupils by teaching pupils how to recognise the difference between right and wrong and to apply this understanding in their own lives, and to recognise legal boundaries. In doing so they learn how to respect the civil and criminal law of England as well as understanding the consequences of their behaviour and actions.

We promote the **social development** of pupils by teaching pupils how to use of a range of social skills in different contexts, for example communicating online. Pupils also learn acceptance of and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance.

## **Overall Reading Enhanced Curriculum Intent**

Our reading-enhanced curriculum excites pupils to ask questions and learn new knowledge and skills. Our curriculum builds **pupils' substantive and disciplinary knowledge progressively over time**, from the moment they start school in the Early Years. It prepares them well for the Key Stage Three curriculum.

The reading-enhanced curriculum has **reading for purpose built into all learning**. Units of work have a high-quality, age-appropriate driving text assigned that is used as the catalyst to impart curriculum knowledge and promote questioning. These texts are carefully selected to engage, inspire and deepen understanding. Alongside this, supplementary texts and bespoke knowledge organisers enable pupils to enrich their knowledge, subject-specific vocabulary and curriculum skills. **Every curriculum session includes reading for purpose**, from either the driving book or a supplementary text. Pupils then use this as a stimulus to discuss new knowledge, deepen their enquiry skills and form links in their learning.

The long-term plan is devised so that there are clear subject links within a unit, enabling pupils to make **connections in their learning**. This is also the case with the subject strands, where skills correlate with other subjects. For example, the skills within similarities and differences in history work parallel with making comparisons in geography.

**Pupils learn subject content in the reading-enhanced curriculum prior to accessing the reading strategy texts.** For example, in the Year 5 Democracy unit, pupils learn about the Gunpowder Plot. This prepares them with background knowledge for reading *Black Powder* in Year 6. This ensures that pupils have a further opportunity to demonstrate knowledge in a different context, build schema and reinforce retention of knowledge.

**Pupils master knowledge progressively through each year, phase and key stage.** The needs of all pupils have been carefully considered when setting this ambition. This ambition remains high but **may be adapted by support and resources, for example, for those pupils with SEND.**

The **most important knowledge we expect pupils to remember is identified as take-aways** in each subject. Reinforcing our strong belief in fostering enquiry, all units have an **overarching Big Question** as its title and each session has a **threaded Big Question**: all of which are used to assess pupil progress.

**Influential people are also paramount to the curriculum** and are used in all subjects. These are selected to span different eras and link directly to the unit of work pupils are learning. By incorporating a diverse range of people (e.g., historians, scientists, entrepreneurs), new learning is put into a real-world context, developments within a subject historically are seen and pupils are given an insight into how their learning impacts on the world around them and **inspires them to pursue future careers.**

Throughout the REC curriculum, we take every opportunity possible to **promote pupils' spiritual, moral, social and cultural development.**