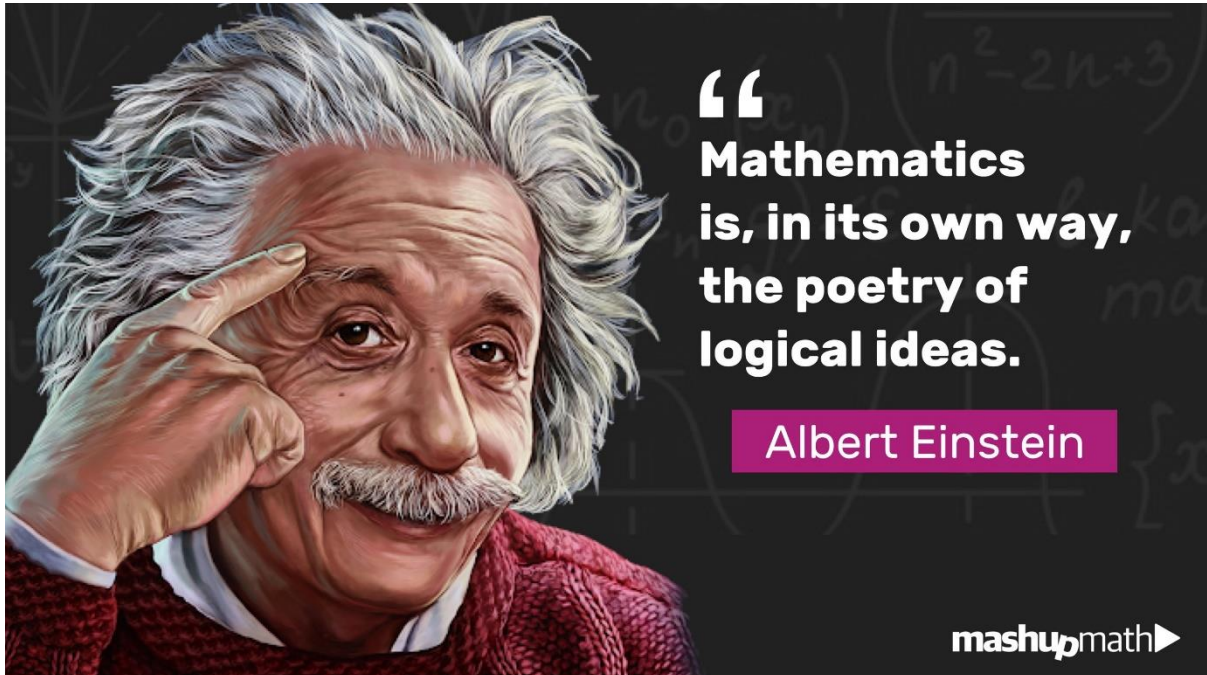


## Mathematics – Curriculum Design



### **Purpose of Study**

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

### **What are the aims of the subject?**

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.



## Mathematics At Rodbourne Cheney Primary School

At Rodbourne Cheney Primary School, we want Mathematics to be an important creative discipline that helps us to understand and change the World. We want all pupils at Rodbourne Cheney Primary School to experience the beauty, power and enjoyment of mathematics and develop a sense of curiosity about the subject.

At Rodbourne Cheney Primary School, we foster positive 'can do' attitudes, believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts. We use mistakes as an essential part of learning and provide challenge through rich and sophisticated problems before acceleration through new content. We endeavour to provide an exciting and stimulating environment for the children to learn maths, fostering positive, confident attitudes.

Our timetable will allow for the delivery of two maths session per day. The main maths lesson will be around 45 minutes long and deliver the curriculum using specific key learning objects. The second session will be approximately 20 minutes and will allow pupils to review previous learning (particularly arithmetic skills and knowledge), keeping it alive for the children.

Mathematics is important to our school and the children who attend as we want them to be confident and successful as they grow and learn to be part of wider society. We have high aspirations for the children and our maths curriculum develops

- children who feel like they can be successful in mathematics
- conceptual understanding of the mathematics the children are learning
- the children's ability to explain their mathematical thinking using appropriate mathematical language and representations.
- equitable provision to meet the needs of individuals and groups within each setting

### Maths in Early Years:

In the Foundation Stage, maths is taught through a carefully sequenced combination of whole class input, small group adult-led activities alongside continuous provision. At the start of Year 1, this approach is used initially in a way that builds on EYFS practice in order to meet the appropriate National Curriculum objectives. The children engage in daily counting which enables them to build memory and recall of key numbers and facts.

### Maths in Key Stage 1 and 2:

Mathematical learning, in each year group, is planned from the relevant National Curriculum objectives. These are blocked into themes or units and then divided into small manageable steps to create a clear mathematical journey through the learning. New learning is taught through the daily maths lessons, while regular Maths on Track sessions enables further practicing, consolidation and revisiting of prior learning. The children engage in daily



counting and number fluency sessions which enables them to build memory and recall of key numbers and facts.

**Maths lessons should be:**

- Interactive
- Engaging
- Full of discussions through partner-talk
- Offering opportunities to use manipulatives and representations where needed
- Fun
- Support all children to be successful