



Christchurch Infant School

Maths Policy

At Christchurch Infant's School we are teaching a mastery approach to Mathematics. Mastery is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time. Through high-quality mathematics education we provide children with key mathematical skills and a foundation for understanding the world. We have chosen to teach the National Curriculum objectives for Mathematics, through the use of The White Rose scheme of work which has been written by mastery specialists from The White Rose Maths Hub.

Aims

Through the teaching of a concrete, pictorial, abstract approach we aim for all children to become fluent in the fundamentals of mathematics and to develop an enjoyment and curiosity about the subject.

The following are the principles which underpin our teaching and learning at Christchurch Infants.

- Concrete objects and manipulatives are used throughout the school to help children understand what they are doing.
- Teaching primarily focuses on the basic skills in Maths and a large proportion of time is spent reinforcing number to build competency and fluency.
- We endeavour to make all Maths lessons purposeful, relevant and engaging with opportunities for first hand experiences and the provision of plenty of opportunities to build in reasoning and problem solving elements.
- Teaching and planning supports the ideal of depth before breadth.
- Through differentiation and personalised learning in Maths we ensure the teaching of mathematics is inclusive for all.
- Wherever possible and relevant we aim to make cross curricular links in Mathematics and equip children with strategies to enable them to apply mathematics to real and unfamiliar situations within and beyond the classroom.
- We aim to incorporate active learning in our Maths sessions.

Objectives

Foundation stage

Foundation objectives are taken from the document 'Development Matters'. Children who reach the Early Learning Goals should:

- Count reliably with numbers from 1-20
- Order numbers 1-20
- Identify 1 more or less than a given number
- Add and subtract 2 single digit numbers using quantities and objects.
- Count on and back to find an answer
- Solve problems including doubling, halving and sharing.

Shape, space and measure

- Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects to solve problems.
- Recognise, describe and create patterns.
- Explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Key Stage 1

The strands are as follows;

- Number – number and place value.
- Number – addition and subtraction
- Number – multiplication and division
- Number – fractions.
- Measurement
- Geometry – properties of shape
- Geometry – position and direction
- Statistics (taught in year 2)

Through combining the national Curriculum aims and the White Rose maths hub principles our objectives are:

- A dedicated daily maths lesson is planned in each class in KS1 lasting for 1 hour. In the Foundation stage a maths session is planned 4x weekly lasting for 45 minutes, alongside opportunities for mathematical activities through continuous provision.
- Lessons are well structured, lively and delivered at a good pace.
- Lessons are structured to embed mathematical understanding through concrete, pictorial and abstract representation.
- Teaching, learning and level of support is differentiated so that the children are all working towards the same learning objective appropriate to their age group.
- All children will be exposed to challenge through tasks and questioning including further mastery problem solving activities for higher attaining pupils to enable them to reach Greater depth.

Teaching and learning Strategies

- In Foundation and Year 1 children are taught Maths in their classes. In Year 2 the children are streamed into 5 ability groups, with group 3 and 4 having equal weighting, smaller classes and more adult support to give these children the best possible chance of reaching ARE. Group 5 are a small group of SEN children, working between the year 1 and 2 objectives. These groups are fluid and children will be moved between them in order that the most progress is made.
- In line with the aims of the NC2014, we have now moved to focus on all children achieving the same learning outcome and the differentiation is the way that different groups of children are supported to achieve this.
- Work is carried out using a balance of individual, paired and group work.
- Teachers demonstrate, explain, model and illustrate mathematical ideas to fully involve pupils and maintain their interest through appropriately demanding work.
- Teachers use and expect pupils to use correct mathematical notation and vocabulary.
- We follow a CPA approach using strategies as laid out for each year group in the calculation policy.
- Children are encouraged to develop their own mathematical strategies in response to solving problems as well as learning standard methods.
- Teaching assistants have accessed in school CPD in order to fully support children in the teaching of mathematics.
- We provide opportunities for home learning through differentiated home learning tasks in key stage 1, which are sent home on a regular basis as in accordance with the Homework policy.

Curriculum and planning

- The Log term planning is taken from the White Rose maths hub and small steps used to inform medium term and weekly planning.
- Short term planning is recorded each week on maths planning sheets, designed for each year group. These show a warm up which is often recapping previously learnt skills and has an active element, fluency, reasoning and problem solving.
- Teachers also look to gaps in assessment to inform planning.
- Books and planning are regularly scrutinised by the maths lead and SLT.

Monitoring and Assessment

Assessment of attainment in mathematics is carried out in two ways. The first of these being the assessment of the learning known as 'summative assessment' where a child's attainment is measured against descriptors based on national age

related expectations at the end of a block of work and recorded on the maths assessment sheets. The other method is formative assessment carried out throughout lessons through annotation, observations, photographs, discussions, children's responses to questions and TA feedback. In year 2, teachers date against the Key Performance Indicators on the assessment sheet in their books and highlight a statement when enough evidence has been gathered. Children's work is marked promptly and in accordance with the school marking policy. Progress is tracked through analysis of the data on school pupil tracker half termly. Foundation teachers collate evidence through the use of Tapestry. Work is moderated within year groups and externally when opportunities arise.

It is the role of the class teacher, base leaders and maths lead to identify children who are not making appropriate progress. These children may need to have more specific targeted intervention to help them move forward. TA's have accessed training in order to deliver the First Class at number intervention from Edgehill University. This intervention is accessed by all classes in Years 1 and 2, according to need. In Foundation, TA's deliver interventions according to need that are planned by the class teachers.

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