



**Guardian Angels Catholic Primary School**

**Maths Policy**

<b>Date Written</b>	September 2023
<b>Date Agreed</b>	
<b>Chair of Governors (Signature)</b>	Mary Higgins
<b>Head Teacher (Signature)</b>	Helen Milligan
<b>Date for review</b>	September 2025

## **INTRODUCTION**

Mathematics teaches us about the world around us through developing a child's ability to calculate, to reason and to problem solve. It enables pupils to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and the application of mathematics.

Guardian Angels School follows the Maths Hub White Rose planning format. Alongside this Maths No Problem, White Rose Premium Resources and Power Maths has been purchased to aid in planning for mastery. This planning support material covers all England's Primary Curriculum statutory requirements by the end of Primary school.

## **AIMS AND OBJECTIVES**

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, reason and to solve problems. It enables children to understand and appreciate relationships and pattern both in number and space in their everyday lives.

Through their growing knowledge and understanding, children learn to appreciate the contribution made by many people to the development and application of mathematics.

Our aims for mathematics are to enable children to:

- develop practical skills and understanding of mathematical concepts, facts and operations as outlined in the National Curriculum
- develop creativity, flexibility and independence of mind to apply their mathematical skills when investigating and solving problems
- build confidence and enjoyment in mathematics
- challenge children through high expectations and equip children with the skills needed to rise to the challenge.

The school uses the Maths Hub White Rose programme of study as a guide to teaching. Teachers adapt lessons to meet individual needs. Teachers keep an on-going record that demonstrates pupil attainment and progress using FROG assessment. Children receive at least one piece of mathematics homework every week.

## **PROVISION**

At Guardian Angels Catholic Primary school mathematics is based on five key principles. These are:

- The equivalent to a dedicated mathematics lesson every day.
- Direct teaching and Daily Practice (where appropriate) with the whole class and/or groups.
- An emphasis on mental calculation.

- Use of assessment for learning to ensure work is differentiated to children's interest and needs. Grouping is fluid ensuring that each activity is pitched appropriately for the individual.
- A variety of teaching strategies; including use of models, images, concrete resources and ICT, taking into account children's learning style.
- A focus on Concrete, Pictorial and then abstract teaching ensuring children have a strong understanding of number.

## **ORGANISATION**

### **EYFS**

As the class is part of the Foundation Stage, we relate the mathematical aspects of the children's work to the objectives set out in the areas of learning, which underpin the curriculum planning for children aged three to five. The EYFS learning environment includes visual images, models and number resources to stimulate interest.

We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics. Mathematical resources are readily available both indoors and in the outside learning environment.

Mathematics in the foundation stage is made up of the following aspects:

**Numbers as labels and for counting** – the children gradually know and use numbers and counting in play and eventually recognise and use numbers, reliably developing mathematical ideas to solve problems.

**Calculating** – the children develop an awareness of the relationship between numbers and amounts and know that numbers can be combined to be 'added together' and can be separated by 'taking away'.

**Shape, Space and Measures** – through talking about shapes and quantities and developing appropriate vocabulary the children use their knowledge to develop ideas to solve mathematical problems.

### **KEY STAGE 1 AND 2**

Mathematics is delivered for the equivalent of one hour daily. Children also have the opportunity to use their mathematical knowledge in other lessons across the curriculum.

### **PLANNING**

Maths Hub White Rose materials is structured blocks. Each block covers approximately 2-5 weeks work ensuring a deeper understanding of each concept is achieved before children move on.

## An Example of Year 1 blocks

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction			Geometry: Shape	Number: Place Value		Number: Addition and Subtraction		
Spring	Time	Place Value		Number: Addition and Subtraction	Measures: Length and height	Number: Multiplication and Division		Number: Fractions				
Summer	Number: Place Value			Number: Four Operations			Measurement: Money	Measurement: Weight and Volume				

This organisation provides 30 weeks of lessons for one school year. This allows teachers to tailor the lessons to the needs of their class and revisit certain lessons when necessary. Every lesson plan for Years 1 to 6 includes a section of daily practice linked to the flashback 4 material on White Rose. This covers material that children need to know “off by heart”, i.e. times tables and number bonds and reviews previous week, previous topic and previous year group objectives.

To support understanding and quick recall of timetables 99 club tests are administered to children and their results recorded. A number of interactive resources such as Times Table Rockstars and MyMaths can be used to supplement the teaching of timetables in a fun way.

### **ASSESSMENT AND RECORDING**

At Guardian Angels, we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress. Assessment is carried out at three levels:

- Short-term assessments which we use to help us adjust our daily plans. These short term assessments are closely matched to the teaching objectives; they are fed back appropriately to children in their books or through discussion. These should be linked to the Learning Objective for the lesson and can include Maths Hub problem solving and reasoning questions so children experience test like questions. Each unit of work also has an end of block assessment that helps teachers assess understanding.
- Medium-term assessments are carried out at least 3 times per year in preparation for data meetings. The purpose of these assessments is to review and record the progress the pupils have made in relation to the key objectives. Guardian Angels use MathsHub assessments to assess the work taught so far in the year

- OTrack/FROG is updated regularly to help track children’s progress against all National Curriculum objectives

Class teachers can complete teacher assessments throughout the year using a range of materials to assist their judgements such as: Past SATs papers (KS1 and KS2) and, at the end of each term, Maths Hub assessments. Alongside these tests, class teachers collect a range of evidence to support their assessments, including: their knowledge; work in books and records and observations.

Maths Moderation is used to confirm teacher judgement

We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make the long-term assessments with the help of end-of-year tests and teacher assessments.

### **REPORTING**

All parents receive an annual written report on which there is a summary of their child’s effort and progress in mathematics over the year.

At the end of Key Stage 1 and Key Stage 2 each pupil’s level of achievement against national standards is included as part of their annual written report. In EYFS staff meet with parents to discuss the foundation stage profile points that have been achieved and are agreed with parents.

### **RESOURCES**

A variety of resources are provided for practical work and for use in problem solving and investigations. Where appropriate, these materials are classroom based with other specific items stored in central resource areas. Guardian Angels Catholic Primary uses a variety of published materials to facilitate the teaching of mathematics. Materials are constantly updated as new and relevant items become available. The mathematics subject leader orders new resources after consultation with staff.

Concrete resources are introduced to children at the start of each year using Making Maths Count documentation

Week →	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Year Group ↓						
EYFS	Animals	Dominoes	Toy cars	Natural objects	Coins	Cubes and objects
Year 1	Peg boards	100 square	Animals	Everyday objects	Dominoes	Coins
Year 2	100 square	Animals	Place value counters	Coins	Peg boards	< = >
Year 3	Sorting hoops	Straws	Animals	100 square	Cuisenaire rods	Place value counters
Year 4	Coins	1–100 cards	100 square	Animals	Lolly sticks	Dienes
Year 5	Cuisenaire rods	Coins	Cubes	Sorting hoops	100 square	Place value counters
Year 6	Cubes	Place value counters	Sorting hoops	Playing cards	Dominoes	100 square

Examples of concrete resources and manipulatives introduced in each year group.

## **EQUAL OPPORTUNITIES**

As a staff we endeavour to maintain an awareness of, and provide, equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender, special needs, and gifted and talented children, both in our teaching attitudes and in the published materials we use with our pupils.

## **HOW WE CATER FOR PUPILS WITH PARTICULAR NEEDS**

Staff will involve all pupils through differentiation, so all children can access the mathematic lessons and make progress. When appropriate groups of children who are struggling with concepts or need to revisit previous learning objectives in mathematics, may take part in intervention programmes. Teachers use appropriate resources and support to make the lesson accessible to all children. Morning boosters are used to challenge and strengthen understanding of mathematical concepts.

## **CHILDREN WITH SPECIAL EDUCATIONAL NEEDS**

Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, or differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

## **MONITORING, EVALUATION AND REVIEW**

Progress and standards are monitored by the mathematics subject leader and the SLT through scrutiny of planning and books, lesson observations, interviews with children and analysis of assessments. Each year Teacher Assessments, Maths Hub test results and SATs results are analysed to evaluate strengths and areas to develop/improve.