

Saint Norbert's Catholic Academy

Mathematics Policy

Date Adopted: Advent 2020
Date of Review: Advent 2021



ST. NORBERT'S
CATHOLIC PRIMARY SCHOOL

Our Mission Statement

St. Norbert's strives to nurture and develop the whole child through a

Love of God
Love of one another
Love of life itself

Article 3 (Best interests of the child)

The best interests of children must be the primary concern in making decisions that may affect them. All adults should do what is best for children.

Article 28: (Right to education)

All children have the right to a good primary education, which should be free.

Article 29 (Goals of education)

Children's education should develop each child's personality, talents and abilities to the full.

MATHEMATICS POLICY

Introduction

This policy outlines what we are aiming to achieve in respect of pupils' mathematical education. It also describes our agreed approach to the planning, delivery and assessment of the mathematics curriculum. The mathematics taught and the methods used reflect the recommendations outlined in the guidance contained in the documents:

- A. Curriculum Guidance for the Foundation Stage
- B. Curriculum guidance for Teaching Mathematics from Year 1 to Year 6
- C. White Rose medium term planning.

It provides information and guidance for teachers, governors and other interested parties.

Aims

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.

At St. Norbert's Catholic Academy, it is recognised and taught that Mathematics helps children to make sense of the world around them through developing their ability to calculate, to reason and to solve problems whilst expressing their reasoning fluently. It enables children to understand and appreciate relationships and patterns 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 application of mathematics.

At St. Norbert's Catholic Academy School, in conjunction with the National Curriculum, we aim to:

1. develop a positive attitude to maths as an interesting and attractive subject in which all children gain some success and pleasure;
2. develop mathematical understanding through systematic direct teaching of

- appropriate learning objectives;
3. encourage the effective use of maths as a tool in a wide range of activities within school, Education and, subsequently, adult life;
 4. develop an ability in the children to express themselves fluently, to talk about the subject with an assurance, using correct mathematical language and vocabulary (as detailed in the 'mathematical vocabulary');
 5. develop an appreciation of relationships within maths;
 6. develop ability to think clearly and logically with independence of thought and flexibility of mind;
 7. Use manipulatives to aid the development and learning of the children in mathematics.
 8. Use CPA (Concrete, Pictorial and Abstract) approach to developing mathematical skills.
 9. develop an appreciation of creative aspects of maths and awareness of its aesthetic appeal;
 10. develop mathematical skills and knowledge and quick recall of basic facts in line with NC recommendations.

Teaching and Learning Style

The school follows the National Framework for mathematics. Links, where appropriate, are made to other subjects where possible. The school uses a variety of teaching styles to cater for the variety of learning styles of pupils in mathematics lessons. Our principle aim is to develop children's knowledge, skills, reasoning, fluency and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, number squares, Numicon, and small apparatus to support their work. Counting is an integral part of the majority of lessons.

Differentiation and Support (Provision for G&T, SEND, EAL, PP)

In the revised national curriculum 2014 it is suggested that:

Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'

While the National Curriculum suggests children move through the programmes of study at a similar rate, we recognize that children sometimes need work that is, "other and different" to support and/or challenge - their mathematics "stage" not "age." This is done in a variety of ways:

- the use of a greater variety of concrete items to support consolidation
- real-life planned links to support abstract concepts
- the use of problem-solving activities to further develop reasoning
- timely support and intervention, systematically checking understanding throughout every lesson to embed conceptual development
- small differentiated tasks to suit learning needs of all
- effective AFL throughout every lesson, picking up misconceptions and moving others to deepen understanding with a range of tasks
- marking and verbal feedback throughout every lesson
- booster sessions **delivered by class teachers** to address misconceptions on a daily basis

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. The school provides opportunities for children to develop these skills but for those children who are exceeding the appropriate relevant programme of study they are not to move onto the next programme of study. They are to master their current one with an emphasis on depth and challenge rather than accelerating through the content.

Mathematics Curriculum Planning

Mathematics is a core subject in the National Curriculum, and we use a range of resources, predominantly White Rose scheme of learning as the basis for implementing the statutory requirements of the programme of study for mathematics.

We carry out the curriculum planning in mathematics in line with the structures and recommendations outlined in the National Curriculum. Our weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught (See WR).

The head teacher, Key Stage leaders and mathematics subject leader are responsible for monitoring the mathematics planning within our school. Work undertaken within the Foundation Stage is guided by the requirements and recommendations set out in the Early Years Foundation Stage document. We give all the children ample opportunity to develop their understanding of mathematics. We aim to do this through varied activities that allow them to use, enjoy, explore, practise and talk confidently about mathematics.

Assessment

The children's learning is assessed regularly through teacher observation, marking, use of classroom monitor and discussion with the children. In addition, White Rose Maths Baseline assessments and end of Block assessments are used termly to support judgements alongside Rising Stars and Testbase materials generated by Teachers. Tracking is completed on a termly basis and overall judgements aligned to our Pupil Assessment System, OTrack.

For the Foundation Stage, children are assessed in accordance with the Early Years Foundation Stage tracking system.

Presentation

Children at St. Norbert's are taught to take pride in their learning and that it is set out neatly. In maths, the date will be written as 28.10.2018 (KS2 will also present the date in Roman Numerals: XXVIII - X - MMXVIII)

A line will be missed and then the title will be written on this line. All dates and titles will be underlined with a pencil and a ruler in Key Stage 2 (this may be started in Key Stage 1 depending on the ability of the child).

A margin will be drawn and children will start writing from the margin.

Children should use 1 square per digit when writing numbers or calculations.

Pencil must always be used in maths book.

Any colouring in must be done in crayon or pencil crayons, felt tips must not be used in exercise books. Any mistakes will be crossed out with one straight line through the error.

Children are expected to keep their books neat and tidy. There will be no doodling on the front or inside covers.

Homework

Any maths homework given should consolidate the skills and knowledge taught that week or the previous week.

The amount of homework set is based on the DfE recommended time allocation for homework and allocated time for maths homework is within these guidelines.

(These times are approximate and are a guide only)

Years R, 1 and 2 1hour/week

Years 3 and 4 1.5 hours/week

Years 5 and 6 2 hours/week

It is expected that Times Tables are an ongoing homework task.

Special Educational Needs and Maths Homework

Setting the right type and amount of homework for children with special educational needs will need careful consideration by the class teacher and coordination with both the Inclusion Manager and parents. SEND children may benefit from differentiated tasks separate from the homework set for other children in the class but it is important that they should do as much in common with other children as possible.

The Subject Leader

The Maths Subject Leader's role involves:

- modelling good practice and updating the school policy when necessary
- being responsible for the upgrading and ordering of resources and arranging for their storage
- keeping informed about developments and new initiatives to support the teaching of Maths and ensure staff are informed
- auditing needs and organising staff training; training staff in teaching and learning of English;
- analysis of Mathematic assessments and pupil data throughout the school and ensuring targets are met.
- Scrutiny of books and lesson observations with constructive feedback; monitoring learning environments
- supporting teachers in planning and using resources;
- facilitating parent workshops

Signed _____

(Head of School)

Signed _____

(for and on behalf of the Local Governing Board)

Additional Related Policies;

Calculation Policy

Homework Policy