St Gregory's Catholic Primary School

Mathematics Policy

'We Grow, Love and Celebrate Together'

Mathematics Policy Introduction

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. It is because of this that the Mathematics curriculum should be bold, provide breadth and balance and be relevant and differentiated to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels.

At St. Gregory's we aim to ensure all staff, children, parents/carers and Governors are aware of the aims for learning and teaching Mathematics and that these are consistently applied.

School staff should:

- Promote a confident, positive attitude towards the learning and use of Mathematics making it an enjoyable experience
- Promote confidence and competence with numbers and the number system
- Encourage pupils by believing that every child, with hard work, can be good at Mathematics through promoting a Growth Mind-set
- Promote the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects such as Science
- Promote mathematical reasoning by following a line of enquiry, developing an argument and making justifications using mathematical language
- Promote a practical understanding of the ways in which information is gathered, presented and used
- Promote the exploration of features of shape and space and develop measuring skills in a range of contexts
- Understand the importance of Mathematics in everyday use, especially in relation to essential life skills, such as telling the time and understanding money

Children should:

- Develop an enjoyment of learning through practical activity, investigation, exploration; mental exertion and discussion
- Develop confidence and competence with numbers and the number system
- Develop the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects such as Science and Geography
- Develop the ability to reason mathematically by following a line of enquiry, developing an argument and making justifications using mathematical language
- Develop a practical understanding of the ways in which information is gathered and presented
- Explore features of shape and space, and develop measuring skills in a range of contexts
- Understand the importance of Mathematics in everyday life, especially in relation to essential life skills such as telling the time and handling money

- Foster positive attitudes towards Mathematics by developing pupils' confidence, independence, persistence and co-operation skills and understand Growth Mind-set in a Mathematical context.

Parents and Carers should:

- Be understanding and supportive of our aims in learning and teaching Mathematics
- Support their children with Mathematics homework activities (please refer to Homework Policy) including the importance of learning their number bonds and times tables off by heart
- Praise their children for the good things that they do in Mathematics
- Communicate and work with school whenever further support is needed to develop their children's mathematical skills and understanding
- Make mathematics part of children's everyday lives

Governors will: Appoint a designated link governor who will:

- Meet with the Mathematics Subject Leader at least once a year to find out about the school's systems for planning work, supporting staff and monitoring progress
- Discuss the allocation, use and adequacy of resources
- Question how the standards of achievement are changing over time
- Visit School and talk to pupils about their experiences of Mathematics
- Promote and support the positive involvement of parents in Mathematics
- Attend training and other events relating to the Mathematics curriculum
- Report jointly with the Subject Leader, both for the School Prospectus and to the governing body with recommendations, if appropriate, once a year
- Be understanding and supportive of our aims in the learning and teaching of Mathematics and to review this policy annually.

Implementation of the Mathematics Policy Foundation Stage organisation

- Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of Mathematics in the Foundation Stage
- The children have the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and mathematical skills
- The children explore, enjoy, learn about, and use Mathematics in a range of personalised situations
- Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals.

The National Curriculum for Mathematics (Programmes of Study)

Mastery and the National Curriculum

- "The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace."
- "Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new concepts."

Three Aims:

- To become fluent in the fundamentals of mathematics, including through varied and frequent practice, so that pupils develop conceptual understanding and recall and apply knowledge.
- To reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and using mathematical language.
- To solve problems by applying their mathematics to a variety of routine and non-routine problems.

Teachers planning and organisation Long term planning

- The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure) provide the long term planning for mathematics taught in the St Gregory's
- Medium term planning Years 1-6 use the Liverpool Maths Plans in conjunction with the White Rose Maths Hub schemes of learning as their medium term planning documents.
- These schemes provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, key aims of the National Curriculum. They support a mastery approach to teaching and learning and have number at their heart. They ensure teachers stay in the required key stage and support the ideal of depth before breadth. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum.

Short term planning

• Lessons are planned using a common planning format and are monitored at intervals by the Mathematics Subject Leader and Senior Leadership Team. EYFS planning is based on the medium term plans and delivered as appropriate to individual children with thought to where the children are now and what steps they need to take next.

Key Stage 1 organisation

- Children in KS1 are taught Mathematics for approximately 1 hour daily in mixed ability class groups.
- At the beginning of each Mathematics lesson all children undertake an Oral/Mental Starter activity.

- Intervention will take place throughout the week for children who need additional support.

Key Stage 2 organisation

- Children in Years 3, 4, 5 and 6 are taught Mathematics in mixed ability class groups and are taught for approximately 1 hour daily.
- At the beginning of each Mathematics lesson all children undertake an Oral/Mental Starter activity.
- Intervention will take place throughout the week for children who need additional support.

Calculation Policy

- Please refer to our Calculation Policy which can be found on our website in the Curriculum/Maths area. Cross curricular Opportunities are used to draw mathematical experiences out of a range of activities in other subjects, such as in PE, Science and Geography, to enable children to apply and use Mathematics in both real life and academic contexts and make links. Homework (please refer to the School's Homework Policy)
- Mathematics homework is set for children in Years 1-6 each week.
- Children in EYFS also receive Mathematics homework as part of their Learning Journey books.
- Homework provides opportunities for children to: practise and consolidate their skills and knowledge; develop and extend their techniques and strategies; and prepare for their future learning through out of class activities and homework.

Parents/Carers

- The School aims to involve parents/carers in their children's learning as much as possible and to inform them regularly of their child's progress in Mathematics
- Parents/carers have the opportunity to meet with child's class teacher at least twice a year at Parent Evenings and receive a written report at the end of the year
- Parents/carers are encouraged to speak to their child's teacher at any point during the year, either informally or by making a specific appointment to discuss anything to further support them at home
- Information about their child's standards, achievements and future targets in Mathematics is shared with parents/carers at these times and also ways that parents/carers may be able to assist with their child's learning
- Parents/carers are encouraged to support their children with homework
- School also provides a number of opportunities for parents/carers to learn about what their child is learning and the way their child is being taught through Parent Evenings
- The Year 2 and 6 teachers annually hold a SATs meeting to inform and discuss the SATs tests in Mathematics.

Special educational needs & disabilities (SEND)

- Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required, children's pupil profiles incorporate suitable objectives from the National Curriculum for Mathematics or development Matters and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the SENCO and/or the class teacher. Within the daily mathematics lesson teachers have a responsibility to not only provide differentiated activities to support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.
- Equal Opportunities Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. This policy is in line with the school's 'Racial Equality' policy.
- The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons. Lessons involving lots of visual, aural and kinaesthetic elements will benefit all children including those for whom English is an additional language (EAL).

Assessment

Assessment is an integral part of teaching and learning and is a continuous process. Teachers make assessments of children daily through;

- Regular marking of work
- Analysing errors and picking up on misconceptions
- Asking questions and listening to answers
- Facilitating and listening to discussions
- Making observations

These ongoing assessments inform future planning and teaching. Lessons are adapted readily and short term planning evaluated in light of these assessments. Medium term termly assessments are carried out across the school using the assessment materials for each year group provided by NFER. These materials used alongside judgements made from class work support teachers in making an appropriate teacher assessment judgement for each child which. Pupil Progress meetings are timetabled each term for all classes. Progress of pupils is discussed and appropriate intervention considered and put in place where appropriate. Long term Y2 and Y6 complete the national tests (SATs) in May. Years 1, 3, 4 and 5 complete optional SATs papers produced by NFER which inform teacher summative judgements in the summer term.

Resources

Each class has a stock of core resources that are age appropriate. Additional mathematical equipment and resources are stored centrally in the resources room.

Subject Leader

- The role of the Subject Leader is to provide professional leadership and management in Mathematics in order to secure high quality teaching, effective use of resources and high standards of learning and achievement for all pupils.
- They will achieve this by affecting the following key areas: strategic direction and development; learning and teaching (including planning and marking and presentation); leading and managing staff; and efficient and effective deployment of staff and resources.
- The Subject Leader will train and coach staff on Mathematical pedagogy within the school and keep up to date with developments from a county and national level.
- The Subject Leader has regular discussions with the Head Teacher and other senior leaders about learning and teaching in Mathematics and provides data and a subject overview of the strengths and weaknesses of Mathematics within St, Gregory's Primary School on a termly basis.
- During the academic year the Subject Leader has specific allocated time for subject self-evaluation activities.