

Numeracy Policy

Governors and staff at Our Lady & St Edwards Catholic Primary & Nursery School value each child as a unique individual made in the image and likeness of God with a range of individual gifts and talents. Therefore, we aim to provide every child with access to a broad and balanced education and to ensure they develop the necessary skills and knowledge to communicate effectively within society.

Aims

To develop the children's abilities to :

- use, apply and manipulate numbers, both mentally and in written form, with increasing confidence.
- use and apply knowledge of Shape, Space, Measures and Data Handling, gaining increasing understanding and confidence.
- understand the relevance of Mathematics to every day life.
- adopt a problem solving approach to Mathematics which develops fluency, reasoning and problem solving.
- enjoy Mathematics and become confident learners
- 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.

Objectives

- To provide a stimulating and structured working environment.
- To maintain a high standard in the quality of teaching and learning.
- To ensure every child has full access to the mathematics curriculum, differentiating according to need.
- To provide opportunity for children to use and apply their knowledge in practical and written ways as well as being able to reason.
- To provide challenges which enable children to develop their full potential.
- To provide appropriate resources meeting the needs of the curriculum and the children.

Mathematics Curriculum Planning

Teaching content is based on Early Learning Foundation Stage Goals, the Primary Framework and the National Curriculum programme of study 2014, published schemes (White Rose, Maths no problem and Collins) and other published and home-made resources.

Coverage and progression is ensured through careful medium and short term planning. There are overviews for each unit which contain the learning objectives to be covered and AFL opportunities. Weekly plans concentrate on the methods

employed to achieve each objective; this often involves breaking down objectives into smaller steps. The weekly plans also contain differentiation, TA support and links to ICT where appropriate.

Children are taught to use both mental and written strategies. Problem-solving is an integral part of mathematics teaching and wherever possible should involve real life context for maths where the children are problem solving with a purpose in mind.. Children are provided with a variety of materials and resources in order to encourage flexibility in their use of, and approach, to mathematics. From the Foundation stage, children are encouraged to learn their multiplication by counting in different amounts and then moving onto tables by heart.

The new maths curriculum ensures that when a child is introduced to a key new concept, they should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

Maths is developed through quality first teaching using rich tasks to develop fluency, reasoning and problem solving.

Reasoning allows the children to be able to recognise patterns, make connections, predict, draw conclusions, justify and generalise.

Problem solving allows the children to make choices and seeking and communicating solutions to the actual problem.

The children have the opportunity to think more deeply and to tackle problems that require a greater depth of understanding.

Children record their work in a variety of ways, including, number, writing, pictures, graphs, photos, drawing and ICT. Children use pencil in their maths books and are encouraged to concentrate on the quality of presentation.

Children are encouraged to use and apply their mathematical knowledge in practical ways to solve every day problems.

Classes have a working maths wall, showing maths vocabulary linked to current topics. Mathematical equipment is stored within the classroom and is out for easy access for the children,

Teaching and Learning

A range of teaching and learning strategies, appropriate to the activity and the needs of the children, are employed.

In the foundation Stage children are given the opportunity to develop their understanding of number, measurement, pattern and shape and space through a combination of short formal teaching, as well as a range of planned structured play situations where there is plenty of scope for exploration.

We recognise the value of whole class teaching and this forms part of every maths lesson. Children are kept involved in whole class sessions through the use of appropriate questioning and a variety of resources suitable for the relevant tasks and childrens needs.

Within the ‘working session’, we endeavour to provide a balance of individual, paired and group activities, suitable for the task set and interesting to the children. Children may work in ability groups or mixed ability groups according to the activity undertaken.

Differentiation is used to cater for the range of abilities within the class. This may take the form of differentiation in activity, resources, outcome, intervention, support, questioning or the provision of extension tasks and challenges.

We recognise the value of the plenary session in whole class consolidation of skills learnt, reinforcement and recognition, and praise for work undertaken and results achieved. We also recognise the need for mini plenaries throughout a session to highlight and address any misconceptions. Children are also given the opportunity within the lesson to ‘show me’ which enables the children to show that they have understood the task given to them.

Assessment and Reporting

Assessment is an integral part of mathematics teaching and takes the following forms:

- Teacher Assessment is ongoing and is based on daily interaction, questioning, observation and outcome. It is used to inform day to day planning, half termly assessments and on end of year reports.
- Headway objective grids are used throughout KS1 and 2. The assessments are based on teacher observation, tests, including Optional SATS, and individual pieces of independent work. The assessments are passed onto the Assessment Coordinator and are placed onto OTrack to be used to inform future planning and to identify vulnerable groups.
- An Early Years Profile is completed on entry to the Nursery. The Foundation Stage Profile is kept throughout the Foundation Stage and is completed at the end of a child’s Reception year. The results of this are passed to the LA and DCSF.
- Key Stage One Maths SAT results are recorded on the child’s record, passed to the LA / DCSF and Assessment Co-ordinator and reported to parents.
- Key Stage Two Sat results are recorded on the child’s record, reported to parents and passed to the LA / DCSF and the designated secondary school.
- The school monitors pupil’s progress against the level descriptors for national curriculum levels. The Headway sheets are in the front of all pupils books and run alongside the non negotiables for the new National Curriculum 2014 age related expectations for each year group. Year 2 and Year 6 also have the exemplification targets in the back of their books. If children are identified as having special needs, a variety of screening materials may be used to diagnose specific areas of difficulty. The result of such screening is passed to the class teacher to inform planning, and to the SENCO who will record this in the

child's Special Needs Record and decide if further action is necessary. Support for pupils with SEND is in line with the current SEND policy.

- We also examine the progress of ability groups and those with EAL, those entitled to the Pupil Premium potentially disadvantaged pupils and those with a Special Education Need. Where data indicates an issue intervention groups will be set up to boost the child's progression in Maths. Interventions should be tightly planned with success criteria set and assessment made frequently to ensure that progress is being made.

Monitoring

Mathematics is monitored in the following ways;

- Monitoring of children's progress begins with performance review meetings but continues with subject coordinator evaluating further evidence to ensure that all children are making progress. This monitoring happens through examination of work in books, pupil interviews, learning walks, analysis of assessment results and progress from the end of each Key Stage.
- The coordinator observes Maths lessons alongside the Headteacher or Deputy Head teacher throughout the school and gives feedback and possible points for development to individual teachers.
- The Assessment Co-coordinator and SLT provide feedback to the Governors with regard to Foundation Stage Profile, SATs, and internal teacher assessment. This sets results in a city wide and national context. Teacher assessment of individual pupil progress is recorded half termly and submitted to the assessment coordinator. All data is analysed regularly by the SLT in order to target areas in need of development for the individual child, the group/class or the whole school. Pupil progress meetings are held between the head teacher, class teacher and TA to discuss the progress of individuals and effectiveness of intervention strategies being employed.
- The coordinator is given non-contact termly to carry out their responsibilities.

Evaluation

This policy will be reviewed in line with the school policy review cycle.

This policy was reviewed in November 2016 by J Greenwood Numeracy Coordinator.

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