St. Paul's Catholic Primary School

Mathematics Policy

At St. Paul's, we aim to develop our children to be confident with number and calculations, to the extent where they can reason with logic and mathematical understanding. We believe that mathematics provides children with essential life- skills, including:

- Being confident and fluent with numbers and known facts
- Being efficient at calculation
- Being able to reason mathematically
- Being successful, and resilient, when solving problems

Our aims:

We aim to achieve these skills by providing stimulating lessons that challenge thinking and enable progress for all. In addition, we:

- Strive for enthusiasm in our children when approaching Mathematical problems
- Provide children with the skills to use and apply Mathematics in different contexts
- Provide opportunities for children to develop concepts through 'talk', using correct Mathematical vocabulary
- Link our Maths curriculum to topic based and 'everyday' contexts to keep learning exciting and stimulating
- Use ICT and Maths of the Day to enhance learning in Maths
- Follow the National Curriculum 2014, adapting it to suit the needs of our children and ensuring progression
- Provide opportunities for our children to 'grapple' with challenging activities and approach their tasks with a growth mind-set

Planning & Programmes of Study:

Our children in the Foundation Stage learn Maths through the progressive stages of the Early Years Framework. KS1 &KS2 follow the guidance of Curriculum 2014. With the key focus areas of developing fluency, reasoning skills and mastery in Mathematics, teachers are developing ways to include opportunities to develop such skills in their planning. Teachers are now using materials provided by the NCETM to target reasoning skills relevant to the topics being taught.

Planning is monitored by the Maths Subject Leader during planning and work scrutiny to ensure consistent provision for the children at St. Paul's.

Calculation Policy:

See separate document.

Teaching and Learning:

Main Maths lessons:

Maths lessons are taught in daily sessions with the expectation that different domains are interconnected as appropriate, e.g. the principles of measure are taught alongside addition, to allow for reasoning and application of mathematical knowledge. Where possible, an element of problem solving and reasoning will be in each lesson. In order to embed mathematical understanding, teachers are encouraged to follow the concrete and pictorial approaches to teach and support the abstract concepts.

Mini plenaries are used effectively to allow for assessment during sessions, where the children can communicate what they are doing and how they rate their confidence levels.

The provision of teaching and learning in Mathematics is observed by the Maths Subject leader, in order to ensure that such provision is of a high and consistent standard.

Arithmetic sessions:

Teachers will also deliver at least one explicit arithmetic session during the week. This session is time-tabled and lasts up to 30 minutes. During these sessions, key mental maths strategies will be taught. This will create quality opportunities for the children to 'grapple' with and solve context-free calculations, and develop accurate and rapid recall of number facts which can then be applied confidently.

Assessment:

Assessment is at the heart of teaching and learning and should be used with care, in order to move the children onto the next step that is appropriate to their needs. AfL is carried out daily to inform strengths, weaknesses and next steps in terms of planning, further support and challenge. Teachers give oral feedback during the lesson itself, plus written feedback in accordance with our marking policy. Children are involved in the assessment process using a range of approaches, including:

- Through talk, explaining their thinking processes
- Thumbs up/ traffic lights
- Response time
- Self-assessment against steps to success

Targets are set for the children each term, which are relevant to the children's needs. Through the development of pre-learning tasks, post learning tasks and assessment data, these targets will be set and monitored in order to ensure that children know that they need to do next.

Cross-curricular links:

Maths is not an isolated subject, but an important life skill. Links are made appropriately across the curriculum to enhance and develop opportunities for applying and improving mathematical skills.

Links with music to embed accurate and rapid recall of number facts are supported through the Sing Up website.

Our children have a strong connection and enthusiasm for PE. We decided to use this to our advantage by subscribing to the Maths of the Day programme. Through these resources, the

children are given opportunities to apply their mathematical thinking and reasoning skills into fun, practical and active sessions, either in class, in the hall, or outside.

Inclusion and Intervention:

Class teachers are responsible for ensuring that all learners make progress in Mathematics, providing a differentiated curriculum for children in order to include the provision set out in IEPs. Those who require additional support are identified during Pupil Progress meetings. TAs deliver intervention sessions during the afternoon lessons. Communication between the class teacher and the TA is essential in order to ensure that the children are making progress and that there is a consistent approach between colleagues, e.g. especially when considering written methods, vocabulary etc.

Maths helpdesks/ areas:

This area should provide the Mathematical equipment required to enable learners to be resourceful and independent. Class teachers are responsible for ensuring this area is organised, supportive and accessible. Working walls should reflect and support the learning that is taking place, including: teacher models, useful vocabulary and children's work e.g. 'My favourite mistake'. These areas can also include challenge activities, providing a further step once work is completed in a Maths session or opportunities for additional Maths work during wet play or activity time (child-initiated).

Resources:

The Maths Subject Leader has a list of the resources that are available in school and where these resources are located.

Teachers are encouraged to promote the use of Mathletics to support learning and develop skills in arithmetic.

Useful websites:

http://www.bbc.co.uk/bitesize/ks2/maths/

http:primarygamesarena.com/Math

http://www.funbrain.com/brain/MathBrain/MathBrain.html

http://mathszone.co.uk

http://koreanmathematics.truman.edu

http://nrich.maths.org/public/leg.php

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