Policy for # Maths		St Modwen's Catholic Primary School 'Together we Achieve Believe Care'
Date of Policy:	Spring 2018	Committee:
Next Review:	Spring 2020	Curriculum and Standards

Together we Achieve, Together we Believe, Together we Care

Achieve: Together we will be the very best that we can be.
Believe: Together we will live, share, experience and celebrate our Catholic faith.
Care: Together we will be a safe, caring community where we value ourselves, respect and care for others and all of God's creation.

Aims and Vision for Mathematics

At St Modwen's School, we want all children to develop into confident and competent mathematical thinkers and to be able to apply their mathematical knowledge in a range of challenging and stimulating situations. Our aim is that all children develop a positive and confident attitude to mathematics, enjoy mathematics and reach their full potential as mathematicians.

The national curriculum for mathematics aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.
- Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between mathematical ideas. The programmes of study are, by necessity, organised into distinct areas, but pupils will make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They will also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems to develop mastery before any acceleration through new content. Those who are not sufficiently fluent with earlier material will consolidate their understanding, including additional practice, before moving on.

At St Modwen's, our objectives in the teaching of mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to develop confidence and competence with numbers and the number system through rapid recall;
- to develop their conceptual understanding in order to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to help children understand the importance of mathematics in everyday life.

Context

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It is a core subject with a range of cross-curricular links but most often, is best taught discretely, using opportunities from other subjects to rehearse skills in a context. Maths will be taught every day in Key Stage 1 and 2.

Maths involves developing confidence and competence in number work; shape, space and measure; handling data and the application of these skills. We aim to support children by equipping them with a range of computational skills and the ability to solve problems in a variety of contexts.

Leadership and Management

The subject leader's role is to empower colleagues to teach maths to a high standard and support staff in the following ways:

- By keeping up to date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals)
- Leading by example / modelling lessons or styles of teaching
- Having a knowledge of the quality of mathematics provision across the school
- Identifying and acting on development needs of staff members
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards.
- Providing necessary equipment and maintaining it to a high standard.

National Curriculum and Early Years Foundation Stage

The Early Years Foundation Stage Curriculum feeds into the new National Curriculum and the revised Primary Framework for mathematics. It is good practice to make use of cross curricular links to enable children to use their learning in a real life context. Therefore pupils should be given plenty of opportunities within sessions to use and apply the mathematical skills and concepts they have learned. The school's calculation policy (created alongside this policy) is designed to provide continuity throughout the school with all four operations, which in turn will facilitate measured progress for children in school.

In the Foundation Stage we plan mathematical activities that address the learning objectives for mathematics as set out in the Early Years Curriculum. We provide opportunities for children to develop their understanding of number, measurement, pattern, shape and space through a variety

of activities, both child and teacher initiated, that allow them to enjoy, explore, practise and talk confidently about mathematics.

Implementation/Planning:

Our planning is supported by Focus Education which serves as the main core resource in all year groups. This scheme also facilitates differentiation and challenge, allowing children to steadily progress through the programme of study. Once they understand a mathematical concept, they are then required to solve problems and carry out investigations to deepen their conceptual understanding while also becoming more sophisticated in their Mathematical approach. Reasoning resources and other supporting materials are also saved onto the staff shared area for teachers to use when planning.

Cross Curricular Links

Mathematics can contribute towards many subjects within the primary curriculum and opportunities are sought to draw mathematical experience out of a wide range of activities. This provides opportunities for children to begin to use and apply their mathematics in real contexts.

Computing

ICT and computing can enhance the teaching of mathematics significantly. It has ways of impacting on learning that are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. A range of software and hardware (iPads with numerous apps, laptops and desktops) is available to support work across the school.

Assessment

All children are currently assessed 3 times a year at the end of each term. We are currently using PUMA tests alongside AQA tests alongside teacher assessment. Pupil progress meetings are held with teachers to discuss data and highlight target children and discuss interventions that can be put in place.

Pupils in Year 6 and Year 2 are assessed against previous years' SATs papers.

Teacher assessments based on class work are made regularly and then feed into weekly planning. Children can be set targets from this and groupings in class made accordingly.

As a result of teacher assessment, relevant support can then be put in place if required and this is detailed on class provision/intervention timetables.

Assessments are regularly moderated between classes, through book scrutiny from other teachers in the school and at Moderation with teachers from other schools.

Resources

Resources are available in all classrooms and are well labelled for children to access. Teachers have been given a list of resources that need to be in each class depending in the age of the children. Resources have also been organised into Key Stages and are stored in the concourse for easy access.

Maths displays are used to display current learning including vocabulary and reasoning sentence starters to help children articulate their learning. Teachers have been given a list of Key vocab for the year group that they are teaching.

Monitoring

The monitoring of this subject takes places through lesson observations from SLT, which includes the Maths Coordinator.