
MATHS Summary

Intent

At St Augustine's, maths is a journey and long-term goal, achieved through exploration, clarification, practice and application. At each stage of learning, children should be able to demonstrate a deep, conceptual understanding of the mathematical idea and be able to build on this over time.

There are 3 levels of learning:

- **Shallow learning:** temporary, often lost
- **Deep learning:** it can be recalled and used
- **Deepest learning:** can be transferred and applied in different contexts

The deep and deepest levels are what we are aiming for by teaching maths using the Mastery approach.

We intend to do this by:

Ensuring our children have access to a high-quality maths curriculum that is both challenging and enjoyable.

Providing our children with a variety of mathematical opportunities, which will enable them to make the connections needed to enjoy greater depth in learning.

Ensuring children are confident mathematicians who are not afraid to take risks.

Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

Implementation

Our implementation is developed through secure understanding of the curriculum and subject area.

Planning

1. Long term: National Curriculum

2. Medium term: Yearly overview, up-dated annually in response to data and monitoring of teaching & learning.

3. Short term:

- Daily lessons include a clear lesson intention 'WAGBAT' (We are getting better at) and success criteria 'Steps to Success'.
- Daily lessons are taught in four parts: consolidation of skills, reasoning activity, main input and follow-up task (independent or guided).

- Lessons incorporate concrete, pictorial and abstract. Objects, pictures, words, numbers and symbols are everywhere. The mastery approach includes all of these to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they have learnt.

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

Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

Teaching

‘Quality first teaching’ linked to teaching standards:

All teachers:

1. ‘Know where their children are’ through the use of formative assessment in lessons, prior learning and termly summative assessment.
2. ‘Understand where their children need to be’ through a secure understanding of year group expectations and/or pre key stage expectations and incisive, ongoing, formative assessment.
3. ‘Know how they are going to get them there’ through the use of a range of strategies to promote independence (e.g. next steps in marking), mastery and high expectations for all.
4. Effectively deploy adults, e.g. to make formative assessment notes during consolidation and teaching input, to carry out active marking during the lesson and target children for booster sessions.
5. Plan for progression during and between lessons.

Assessment –

Year 2 and Year 6 SATs.

Year 4 Multiplication Tables Check

Termly White Rose Testing and analysis of results.

Diagnostic (where necessary) – e.g. White Rose unit assessments.

Formative / ongoing based on maths lessons/children’s books which inform individual pupil progress cards.

EYFS ‘Number’ and ‘Shape, Space & Measures’ assessment against Development Matters statements.

These assessments are performed by adults who work with the children in adult lead

activities and also observe child-initiated activities to assess 'in the moment' learning. These are recorded on 'Tapestry' – the online learning journey.

Moderation:

We carry out regular in-house moderation to ensure standardisation across all year groups. Children's mathematical progress is a crucial element of the discussions between teachers and SLT in termly pupil progress meetings.

Impact

The impact of our curriculum is that we have children who are equipped to participate fully in the next stage of their learning in maths.

The impact of our maths curriculum can be recognised through pupils' ability to:

- Quickly recall mathematical facts and procedures.
- Having flexibility and fluidity to move between different contexts and representations of mathematics.
- Recognise relationships and make connections in mathematics

A mathematical concept or skill has been *mastered* when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

To help achieve high expectations, the maths co-ordinators carry out regular lesson drop-ins, book looks and pupil voice questionnaires.

Children also get the opportunity to be rewarded for their achievements through Celebration Assembly.