

Teaching and Assessment of Mathematics Policy

Updated September 2019

INTENT

At All Saints we believe that all pupils can achieve in Mathematics. We do not put ceilings on what pupils can achieve in maths and we do not hold pre-conceptions about any pupils' ability to make progress. We believe that there is no such thing as a 'Maths person'.

We believe that maths is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and build on this over time.

Mathematics lessons should provide the opportunity for all children, regardless of their ability, to work through fluency, reasoning and problem solving activities.

We want all pupils to 'master' maths, and follow a 'mastery' teaching approach. A mathematical concept or skill has been mastered when a child can show it in multiple ways, use the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar concepts. We want pupils to be able to move between different contexts and representations of mathematics, and be able to recognise relationships and make connections in maths.

IMPLEMENTATION

Classroom organisation:

Pupils sit in mixed-ability groupings, which are changed throughout the year. Teaching Assistants are used to scaffold activities for slower graspers. Displays in class (Working Walls) support the current concept being taught and are changed regularly to ensure this is the case. Maths displays should include varied representations of the concept, and will often be created within lessons as a result of teaching.

How a Mastery Maths lesson will be planned and delivered:

We teach maths in 'blocks' to ensure that key areas of maths are covered in depth. Each year group starts the year teaching place value, and moves on to addition and subtraction, multiplication and division (working through Textbook A of Maths No Problem first, then Textbook B). These key areas of number are covered first, and teaching does not move to other areas of maths until these are secure. Within each block, learning is broken down into small steps to ensure that understanding is built in layers. Each step must be 'mastered' by the majority of the class before moving onto the next step. We ensure that children use concrete apparatus to support their understanding, and move through to using pictorial representations before abstract representations.

See additional sheet titled 'Agreed Mathematics Lesson Structure'

Support for slower graspers:

Within lessons, pupils who find the concept more difficult to grasp, will be given extra support to ensure they are able to master the concept. This might be through deploying teaching assistants, additional scaffolding or targeted questioning. Teachers may also work directly with slower graspers within or after the lesson. Slower graspers may need to use concrete and pictorial representations for longer, and may need more work to consolidate understanding.

Extending rapid graspers:

Rapid graspers will be encouraged to show their depth of understanding through their journaling. They will be encouraged to represent problems in a variety of ways, and to make additional links with other areas of maths. All pupils have access to 'Dong Nao Jin' activities at the end of lessons, which provide rapid graspers with the opportunity to apply their learning to different contexts.

Marking and Feedback:

Feedback and marking should be completed, where possible, within the lesson. All marking and feedback is given in line with our marking and feedback policy.

Summative Assessment

Summative assessments will be entered into OTrack each half term. In order to support judgements, teachers should complete End of Unit assessments (from White Rose)

Teachers may also want to complete end of term assessments (from White Rose), but should bear in mind that these assessments should only be given if the entire content of the test has been taught.

Teachers should use their ongoing assessment from lessons alongside any tests to make a summative assessment judgement.

If tests are used, care should be taken to ensure that pupils are prepared appropriately for the test, and any barriers to accessing these is removed (for example by reading questions in a reasoning paper)

INTENDED IMPACT

- Pupils will enjoy learning maths
- Pupils of all abilities will be able to succeed in all maths lessons
- Pupils will be able to quickly recall key facts
- Pupils will use efficient procedures for solving problems in new contexts
- Pupils will recognise relationships and make connections in maths
- Pupils will be able to reason mathematically, justifying answers
- Pupils will be able to represent concepts in a variety of ways
- The % of pupils working at ARE within each year group will be at least in line with national averages.
- The % of pupils working at Greater Depth within each year group will be at least in line with national averages
- There will be no significant gaps in the progress of different groups of pupils (e.g. disadvantaged vs non-disadvantaged)