

St James' CofE Primary School

Mathematics Intent, Implementation & Impact

Ofsted 03/03/2016

Next steps:

- 'Continue to improve the quality of teaching targeted support in Key Stage 1, so that pupils make more rapid progress and standards increase to be in line with national average.'
- Continue to develop the school's focus on the most-able in order to ensure the more able pupils exceed age-related expectations by the end of each key stage.

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

1. 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
2. **reason** mathematically by following a line of enquiry, **conjecturing** relationships and generalisations, and developing an argument, justification or **proof using mathematical language**
3. can **solve problems** by applying their mathematics to a variety of routine and non-routine 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 representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but **pupils should make rich connections across mathematical ideas** to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should 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 should always be based on the security of pupils' understanding and their readiness to progress to the next stage. **Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.**

Mathematical Intent

At St James' we intent to:

- **Ensure our children have access to a high quality maths curriculum that is both challenging and enjoyable.**
- **Provide our children with a variety of mathematical opportunities, which will enable them to make the connections in learning needed to enjoy greater depth in learning.**
- **Ensure 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.**

Mathematical implementation

At St James' we are outward looking and creative in our approach to implementing a high quality mathematics curriculum.

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

Planning

1. **Long term:** National Curriculum and Development Matters
2. **Medium term:** Yearly overview, up-dated annually in response to data and in house monitoring of teaching & learning.
3. **Short term:**
 - Daily lessons include a clear lesson intention 'Can I' and clear success criteria 'Steps to Success'.
 - Daily lessons are taught in 3 parts: starter, main & plenary and incorporate the Teaching Cycle (Teach, Practice, Apply and Review/Assess).
 - Short term planning is supported by the use of the White Rose Maths Hub materials.
 - Daily Big Maths planning (Y1-Y6) Little Big Maths planning (YN-YR)

Teaching 'Quality first teaching' linked to teaching standards:

All teachers:

1. 'Know where their children are' through the use of concise summative assessment, prior learning, assessment, maths talk
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, mastery and high expectations of ALL.
4. Effectively deploy adults, specifically during introductions, plenaries & catch-up sessions
5. Plan for progression during and between lessons.

Learning 'Quality first learning'

We work as a team to ensure all of our children:

1. are school ready
2. feel safe & secure
3. are supported by effective classroom routines
4. are engaged in an engaging environment
5. have a clear understanding of the high expectations set for them
6. have high expectations of themselves
7. are confident in their mathematical learning
8. feel ready and excited to be challenged
9. are independent learners
10. are effective critical friends

Assessment -

1. Summative/reported - NFER (LDST agreed) Standardisation (YR – Y6)
* Pre year group/Key stage assessments made of SEND children – agreement by HT.
2. Summative/ diagnostic – White Rose, Test Base, NCETM
3. Formative / ongoing – * See Marking, Assessment & Feedback policy
4. Prior & Post learning – informs future planning, demonstrates progress in books, celebrates effort and achievement.

Standardisation:

1. NFER test YR – Y6
2. LDST standardisation meetings

Moderation:

1. In-house
2. LDST (academy)
3. WOWS (local)
4. Local Authority

Mathematical Impact * See Subject Lead's Raising Attainment Plan

1. Attainment records
2. Progress records
3. Benchmarking against national (APS)
4. Linked to Performance Management targets