Maths at St John's CE First School

Information Evening





WIMBORNE Academy Trust



Aims for this session

- 1. Understand our approach to teaching Maths.
- 2. Understand the format of a typical lesson.
- 3. How you can help at home.

National Curriculum

Mathematics programmes of study state that:

- All pupils should become fluent in the fundamentals of mathematics, including through varied and frequent practice, so that pupils develop conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems.
- The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. 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 rich and sophisticated problems before any acceleration through new content. Those pupils who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

A Mastery Curriculum

- The national curriculum is designed to raise standards with the aim that the majority of children will achieve mastery of the subject. This is mastery of the objectives for their year group. The expectation is that the majority of children will move through the objectives at broadly the same pace.
- Progress will be based on the security of pupils understanding and their readiness to move on.
- Children who grasp concepts quickly will be challenged through rich and sophisticated problems, before acceleration through new content.

It is better to solve 1 problem in 5 different ways, than solve 5 different problems the same way.

Mastering Concepts

Concepts will be fully developed before moving on. Pupils will have had **plenty of practice** to embed ideas.

Struggling learners are not left behind as there **ample time** to remediate when necessary, advanced learners have enough opportunities to deepen their understanding.

Developing positive attitudes to mathematics is an important goal of the school maths curriculum.







CPA approach







<u>C</u>oncrete > <u>P</u>ictorial > <u>A</u>bstract

Pictorial representation

3

When a child has sufficiently understood the hands-on experiences performed and can now relate them to representations, such as a diagram or picture of the problem.



Bar Model

Transition to the bar model



Bar Model

Transition to the bar model



They have 38 pencils altogether.

Abstract representation

Abstract refers to symbolic representations such as numbers or letters that the child writes or interprets to demonstrate understanding of a task.









Concepts merge from one chapter to the next. Chapters are broken down into chunks called lessons.

Lessons are typically broken into three parts and can last one or more days.

Pupils master topics before moving on.



The Three Parts

In Focus

The entire class spends a long time on one problem guided by the teacher.

Guided Practice

Practise new ideas in groups guided by the teacher.

Independent Practice

Practise on your own.



Addition of Three Numbers



Can you add to find out how many flowers there are in total?

Let's Learn



7 + 3 + 2 = 12





Make 10 and add.













Complete Worksheet 13 · Page 69 - 71

Struggling learners

In each lesson we think about the children who find it more difficult to learn in Maths.

We give them many opportunities to work with resources, (e.g. counters, dienes, place value counters etc.), time to talk and discuss and guided adult support.

Children need time and space to accommodate learning.



Deeper learning (advanced)

In each lesson we challenge children who learn more quickly and may already know the learning. We deepen the learning through challenging the children to explain, orally and pictorially, finding various different possibilities, justifying and giving reasons.

This develops their <u>metacognition</u>; an ability to articulate their learning and reflect on mathematical concepts. We are developing an approach which illustrates it is less useful to have a large amount of content but more useful to deepen thinking.

Historically, we have accelerated learning by moving children on to larger numbers and given new content. The new curriculum is an enrichment model to develop metacognition.



Impact

- All classes are receiving a practical and well-pitched curriculum;
- Teachers' planning in Maths has been reduced to allow them to spend more time preparing directly for the lessons;
- Practice is consistent across year groups;
- Children are confident to explain their answers.





Further Information and Help at Home

• A series of parent videos are available on our website which explain the way in which we teach key concepts.



A Thought to Finish...

Good mathematics is not about how many answers you know...

It's how you behave when you don't know.

- Author unknown

Thank you for your time.

Feel free to have a look through the books and resources at the back and talk to teachers.