# **Outstanding Problems**

Teachers do not consistently use the opportunities within the planned mathematics curriculum to teach pupils problem-solving and reasoning skills. As a result, pupils do not have enough opportunities to deepen their mathematical understanding, and this limits their progress. Leaders need to ensure that teachers have the subject and pedagogical knowledge to teach pupils how to solve a variety of problems and develop fluency in explaining their thinking and answers. OFSTED target

Some classes are teaching Number Sense regularly and consistently, but not all classes are.

ARE children still do not have consistent fluent number fact recall.

White Rose medium and long-term planning provides a good basis for overall progression, which is being used by all classes but in some units of work in some classes teachers are over-relying on closed White Rose worksheets. This limits the possible structure of lessons, and does not always allow children to consolidate deeper understanding and skills with a concept.

KS1 SATs results show that we need to increase our ARE and GDS percentages.

Children who have gaps in understanding or have slipped into WTS are not always being identified mid-year.

## What we will change

Our teaching of problem solving and reasoning will be developed so that all children have regular opportunities to engage with PS&R. In particular, these opportunities will not just be given as extension tasks, or for higher-attaining children.

Teachers will have the subject and pedagogical knowledge to teach pupils how to solve a variety of problems and develop fluency in explaining their thinking and answers.

Number Sense will be taught consistently in all classes, and children will develop fluency with number facts as a result.

The pedagogy and structure of maths lessons and units of work will be effective in developing children's understanding of core concepts and independence.

We will develop an assessment system for maths which provides teachers with useful AfL throughout the year. This will not be just a bought-in scheme, but instead an assessment system the teachers have ownership over and which supports them in focussing upon core concepts and skills over the course of the preceding unit.

### Implementation activities

Maths leader leads sequence of PDMs designed to give teachers an understanding of how to teach children the structure of PS&R questions. This structure will provide a long-term plan for how children can incrementally develop a better understanding of PS&R from year R through to year 2.

Maths leader works with year groups to plan learning journeys and units of work.

Maths leader to team-teach lessons with staff across school, supporting staff to identify and implement effective pedagogy.

All teachers to receive Number Sense training from provider.

SLT to monitor that classes are moving through the Number Sense long-term plan at the expected rate (given slight amendments for AfL).

Lesson observations for Number Sense and maths lessons show appropriate pedagogy.

Maths leader, along with all teachers, develops a system for regular maths assessment throughout the year.

### Implementation outcomes

#### Short Term

Planning/book/tapestry scrutiny shows that all children have regular opportunities to engage with PS&R.

Planning/book/tapestry scrutiny shows that lessons and units of work use a range of effective pedagogies.

All classes are up to where they should be with the Numb Sense long-term plan.

There is a broad outline for the school system for assessment and teachers have conducted maths assessments (at least every half term).

#### Medium Term

Teachers have a long-term plan for how to develop children's PS&R skills, based on good subject and pedagogical knowledge.

Planning/book/tapestry scrutiny shows that there has be a development of PS&R teaching/opportunities for childr across the year.

All teachers have good, shared understanding of what the school maths assessment system is. They regularly asses children and the AfL from these assessments are acted upon.

#### Long Term

We have a bank of maths planning that provides example for future year groups.

The development of children's generic PS&R skills is built upon consistently from one year group to the next.



	Impact on children
	Short Term
ber	Assessments show that children have learned the Number Sense concepts they have been taught so far, and have fluency with these elements.
	Assessments show that children are making good progress in core concepts and skills.
	Medium Term
	Children can approach PS&R questions with an explicit set of (age-appropriate) strategies. They are able to access an answer a range of PS&R questions.
	Children have good fluency with number facts.
	KS1 SATs results show an increase in our ARE and GDS percentages.
en	Long Term
en en	Children's fluency skills built up from yR to y2 allow children to calculate effectively using sophisticated strategies at the end of KS1.
e s	
-	
ars	