

## What Mathematics looks like in our school

What a Maths lesson looks like in our school:

- Mixed ability groupings / seating which allows children to work with different people over the course of time.
- Lots of talk—reasoning
- Problem solving throughout
- Mini plenaries to share misconceptions, pose questions, challenge ideas
- Free access to manipulatives/concrete resources

This is how it works:

- Children select own entry point to challenge themselves but know they can try one point of entry and re-select if necessary. Each challenge is linked to the others - not just different tasks.
- In KS1 maths investigation stations set up for children to further challenge themselves
- Focus on mathematical language
- Many opportunities to talk mathematically
- Prove It!
- Children given time they need –may return to a task in following lesson – not 'compartmentalised' sessions but 'fluid'
- LSA's sometimes used to pre-teach a concept ahead of the lesson

This is our philosophy:

- Mastery of maths means a deep, long-term, secure and adaptable understanding of the subject. Among the by-products of developing mastery, and to a degree part of the process, are a number of elements:

fluency (rapid and accurate recall and application of facts and concepts)

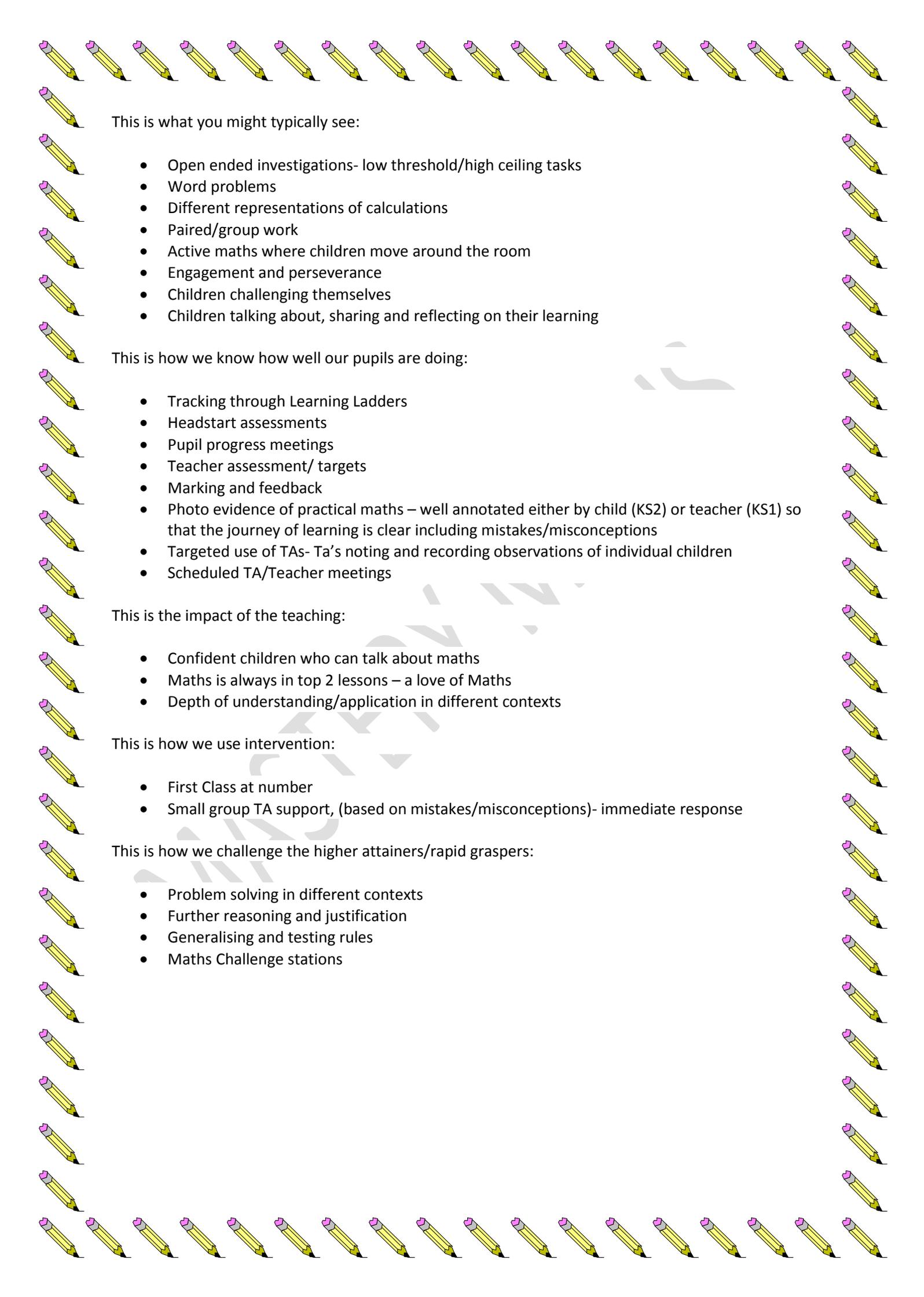
a growing confidence to reason mathematically

the ability to apply maths to solve problems, to conjecture and to test hypotheses.

- Concrete Pictorial Abstract approach
- Problem solving at the heart of everything
- Cross-curricular links wherever possible

This is what we do:

- Positive use of mistakes/misconceptions- learning environment
- Regular book scrutiny, learning walks, planning audits, pupil voice
- Whole school PD
- Use of Maths Hubs to moderate books and discuss how to move forward



This is what you might typically see:

- Open ended investigations- low threshold/high ceiling tasks
- Word problems
- Different representations of calculations
- Paired/group work
- Active maths where children move around the room
- Engagement and perseverance
- Children challenging themselves
- Children talking about, sharing and reflecting on their learning

This is how we know how well our pupils are doing:

- Tracking through Learning Ladders
- Headstart assessments
- Pupil progress meetings
- Teacher assessment/ targets
- Marking and feedback
- Photo evidence of practical maths – well annotated either by child (KS2) or teacher (KS1) so that the journey of learning is clear including mistakes/misconceptions
- Targeted use of TAs- Ta's noting and recording observations of individual children
- Scheduled TA/Teacher meetings

This is the impact of the teaching:

- Confident children who can talk about maths
- Maths is always in top 2 lessons – a love of Maths
- Depth of understanding/application in different contexts

This is how we use intervention:

- First Class at number
- Small group TA support, (based on mistakes/misconceptions)- immediate response

This is how we challenge the higher attainers/rapid graspers:

- Problem solving in different contexts
- Further reasoning and justification
- Generalising and testing rules
- Maths Challenge stations