



Statement of intent for Maths

Our vision and aim of maths within school

At Bow CPS, we believe every child is a capable mathematician. We want all children to enjoy maths and understand its value within real life contexts. The 2014 National Curriculum for maths aims to ensure that all children:

- Become fluent in the fundamentals of Mathematics
- Are able to reason mathematically
- Can solve problems by applying their Mathematics

At Bow CPS, these skills are embedded within maths lessons and developed consistently over time. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.

Mastery

At Bow CPS, we are embedding a mastery approach. We believe that mastery is where all children are seen as able mathematicians who should be given opportunities to have and demonstrate a deep and secure understanding of maths. A mastery approach means that:

- Children start from the same point
- Children work in mixed ability groupings
- Differentiation is provided through support/questioning/resources rather than tasks given
- Children are not moved on until they have shown a secure understanding in a given concept
- There is more of a focus on understanding, rather than just procedure e.g. understanding the different parts of the process of bus stop division, rather than just being able to carry out the steps
- There is a lot of pair/group talk to clarify thinking
- Books show children **working on** the same mathematics, representing their thinking and understanding in different ways (including with diagrams, models, symbols and writing) rather than children **working through** many different examples. This may result in less in the books

Vocabulary

Vocabulary is key to children being able to understand and explain their mathematical thinking. Teachers often explore new vocabulary using games and

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other activities, using repetition to help children remember new terms. Teachers provide children with stem sentences within lessons to structure their talking and reasoning: these are sentences with some gaps that children are required to fill in. For example: I know that _____ is equivalent to _____ because _____. Children are expected to speak in full sentences in all maths lessons.

Resources and representation

All children across the school have access to a wide range of resources. This includes: numicon, bead strings, counters, base ten, cuisenaire rods, number lines, multi-link and place value cards. Teachers select these carefully for purpose as different resources are more useful for different aspects of maths.

Children are exposed to and encouraged to use a range of representations. This may include using part-whole models, bar models, the use of number lines and other drawings.

Fluency

Being fluent in maths at Bow CPS means knowing key number facts, such as times tables and number bonds, and being able to make links between different areas of learning. Knowing these key facts makes other areas of maths far more accessible as children are able to give their full attention to the task at hand, reducing the demand on working memory. Making connections is key throughout maths and strengthens mathematical thinking.

Problem solving and reasoning

Problem solving and reasoning, like fluency, are interwoven in all units of maths in all year groups. These are opportunities for children to demonstrate their understanding and they are often supported in their reasoning with stem sentences. We encourage a growth mindset approach at Bow CPS, so that when children are faced with a challenge, they accept making mistakes and consider them as learning opportunities.