



# Maths at Bierton CE Combined School



## Vision

*In our Church school, our vision is to "let your light shine before others, that they may see your good deeds and glorify your father in heaven."*

### We believe:

- Every child has the right to achieve their maximum potential without a pre-conceived limit being put on their ability and attainment.
- The ability to succeed is not fixed and this is clear in both lesson design and class teaching.
- Learning in maths should focus on depth of understanding before breadth.
- Pupils should 'keep up' over 'catch up'- all children should be given the opportunity to access the lesson regardless of previous attainment.
- High expectations are made clear to all learners.
- Emphasising the high value of mathematics education to all staff, pupils, parents and carers is key to our children becoming successful Mathematicians.
- All staff should actively attempt to improve their pedagogical understanding of maths mastery wherever possible, and feel supported by school leadership to achieve this aim.



### Lesson design:

- Our school follows the '5 big ideas' of mastery teaching.
- Children in Year 1 - Year 6 follow the Maths No Problem approach.

#### Before break

- **Explore:** whole class are provided with a problem to explore.
- **Master:** teacher-led whole class discussion. Different methods are discussed and modelled. Targeted questions are used to draw out from the group, different methods to discuss and any misconceptions to rectify..
- **Guided Practice:** children work collaboratively to solve problems. Variation promotes deeper thinking.

#### After break

**Independent Practice:** children work independently to solve problems. Variation promotes deeper thinking and challenges are provided.

#### After lunch:

Each class (Year 1 - Year 6) has a 10 - 15 minute daily fluency lesson to help transfer key facts to their long-term memory.

### What learning looks like:

- The whole class is taught together, enabling all children to access the learning.
- Children are in mixed-ability groups.
- Continuous AfL is used to identify strengths and need for additional support.
- Small steps of learning are used to build upon prior learning.
- Lessons begin with a contextualised problem, giving the mathematics taught a purpose.
- The Explore, Master and Guided Practice occur before break, without Independent Practice occurring after break. This is to help children transfer skills to their long-term memory.
- Precise and accurate mathematical language is used by both adults and pupils.
- Stem sentences are used to support learning, expose connections and highlight generalisations.
- Children are encouraged to answer in full sentences to explain their thinking.
- Choral and rehearing of key points helps pupils to internalise learning.
- Concrete - Pictorial - Abstract (CPA) representations are planned in carefully to ensure children can 'see' and therefore understand the maths, rather than just following a rote procedure.
- A ping pong style lesson style allows knowledge to be developed under close support.
- Questions are used to develop understanding, challenging thinking and resolve misconceptions.
- Common misconceptions are addressed and planned for to draw attention to the key learning.
- Discussion is key within lessons, giving pupils time to verbalise their thinking and develop their reasoning.
- Conceptual variation ensures children can transfer a skills from one context to another.
- Procedural variation encourages children to look for connections in their learning.
- Children are actively encouraged to identify connections and share what they notice.
- Independent learning enables children to apply their new skills and knowledge
- Children who understand the learning are encouraged to deeper within concept with planned questions and investigations.
- Children requiring support attend daily pre-teaching sessions to support them in 'keeping up', rather than 'catching up'.
- Differentiation will mainly be through the level of adult support each child receives or the resources they use. Generally, children are not given different activities to complete.
- Children self-mark within the lesson so that they can identify errors and self-correct or seek support within the lesson.
- 'The answer is only the beginning'; is used to encourage children to prove and explain their thinking.