# Maths curriculum intent

At Birklands Primary School, we believe that developing:

- Independent learners
- Creative thinkers
- Socially confident and responsible citizens
- Cultural knowledge

will provide our pupils with the positive powers to make a difference in their lives and break the cycle of deprivation.

The impact of this is that through the teaching and learning of maths we:

- Explicitly model, systematically teach and expect staff and pupils to use a rich, varied and specialist mathematical vocabulary through the input and during independent learning time.
- Ensure that all lessons are interactive, encouraging peer talk, questioning, modelling and guided practice. Within all lessons, children should play an active part in the learning process.
- Ensure that all lessons provide children with opportunities to develop a range of skills through fluency, reasoning and problem solving style questions in order to prepare children for their role in the wider world.
- Have established a high ceiling approach to the maths curriculum which is accessible to all maximising the development of every child's ability and academic achievement, thus developing cultural capital within the primary maths classroom.
- Strive to ensure that all children have opportunities to apply their learning in a multitude of ways. We intend for our pupils to be able to interweave their mathematical knowledge through learning in science, art, D&T, PE, geography and history.
- Develop determination, resilience, self-motivation and reflective thinking through bronze, silver, gold and greater depth tasks which encourage children to apply their new knowledge to a range of different contexts. Through these tasks, we expect them to apply their understanding of any prior knowledge to support their thinking and ensure that they understand why maths is key to day-to-day life.
- Ensure that all units of learning include concrete, pictorial, abstract pattern for each year group, enabling children to consolidate their understanding of mathematical concepts and support independent thinking.
- Challenge children through our questioning to ensure understanding is accurate and that their explanations demonstrate this.
- Develop curiosity around math, number and patterns through child-led exploration.

- Develop a love of number and maths through exciting and inspiring teaching.
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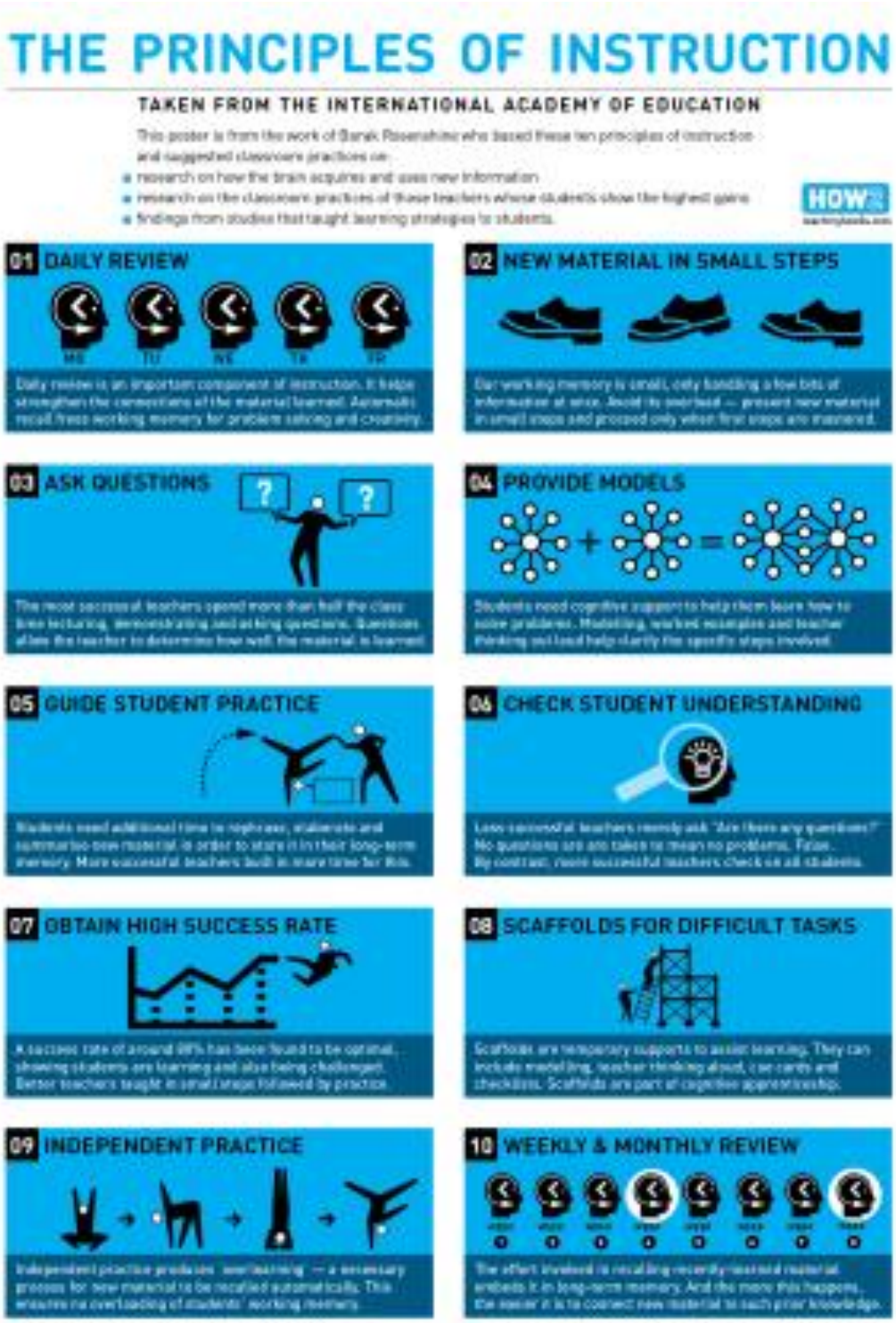
As a school, we have agreed that maths coverage will be taught through a mastery approach, where lessons are planned and delivered in accordance with Rosenshine's principles of instruction. The knowledge should therefore be memorable and transferable to other mathematical units and across the whole curriculum. We aim to ensure that all children understand how maths connects and is applied in the wider world.




Our planning format encourages staff to think deeper and broader when planning each unit of work, and address any mis-conceptions at the point of learning. Staff are asked to consider prior learning, assessment opportunities,

key vocabulary and definitions, new learning that will take place and the small steps in the unit of learning. By including these headings within our planning format, we aim to encourage staff to have a clear understanding of the mathematical learning in each unit in order to improving the maths teaching and learning across school, ensuring all learning is purposeful and moves on from any prior learning.

At Birklands, each lesson begins with at least five arithmetic questions and a rapid recall task (something from last year, term, unit and week) interweaving prior maths learning and basic maths skills into each maths lesson. Through this deliberate practice, children are given frequent opportunities to retrieve information from their long term memory, providing them with an understanding of basic skills needed in a numerate society. Through daily observations and weekly arithmetic tests, staff are able to highlight any misconceptions, ensuring all recall questions are relevant and move the learning on. By interweaving prior knowledge, we aim to ensure that the learning becomes embedded as we believe that it is essential that all pupils are given the understanding and the ability to recall and apply knowledge rapidly and accurately through varied and frequent practice. Prior to each unit of work, children will complete a pre-assessment task, this could be in the form of a quiz or mini-test. This enables staff to pitch all lesson content and support appropriately, ensuring all children are successfully challenged within each lesson.

Through rigorous use of formative assessment, classroom feedback and support, children are encouraged to move forward in their mathematical knowledge and understanding. Through completing this pre-learning assessment, staff are able to accurately pitch and adapt learning to suit all learners' needs. This assessment will be revisited at the end of a unit as a post-learning assessment, as a means of measuring progress and highlighting any misconceptions that still need addressing. Misconceptions are addressed throughout the unit of work and lessons using skilled questioning, pre and post assessment, guided practice, modelling and scaffolding enabling all children to make good progress.

At each data point, staff are expected to triangulate evidence to form their summative assessment judgements. Each year group completes a PUMA/past SATS paper along with an arithmetic paper, ensuring a range of maths skills are tested. After completing assessments, these are analysed in order to shape future learning in maths. We believe that robust assessment, through formative and summative means, allows us to shape our curriculum to address any misconceptions and develop deeper thinking.