

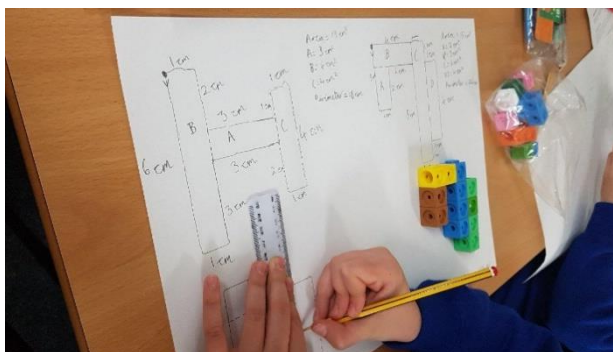
## **Bishop King C.E. Primary School**

### **Our Intent, Implementation and Impact statement for Maths**

#### **Maths intent statement:**

At Bishop King we ensure that children develop an enjoyment and enthusiasm for Mathematics by unlocking mathematical fluency and knowledge whilst promoting a positive culture to provide a deep understanding.

Our Maths curriculum is progressive; at KS2 it is designed to develop competencies to equip pupils for KS3 where they will build on KS2, make connections and solve increasingly sophisticated problems.



#### **Maths implementation:**

Our Maths curriculum provides breadth and balance, is relevant and engaging and is differentiated to match the needs and abilities of all our children to ensure that all pupils are able to excel. As a school, we believe in the importance of following the concrete-pictorial-approach as a means to developing a solid understanding and knowledge of mathematical concepts. These can be applied in a variety of contexts through reasoning and problem-solving challenges. Children receive a minimum of 5 hours maths tuition each week with additional sessions devoted to number proficiency and times tables.

From Reception to Year 6, we adhere to our calculation policy which outlines the progression of strategies and methods to be taught and we have an accompanying vocabulary progression document which we also follow. We have created our medium-term plans in line with White Rose small steps, but have altered the order to suit and benefit the needs of our children so that connections between units of learning are easier to recognize and knowledge is embedded.

From Reception to Year 6, children follow the scheme of 'White Rose' which supports children in learning the fundamentals behind the meanings of numbers and exploring other key mathematical areas. Our maths curriculum is also supported through the implementation of resources from 'Classroom Secrets.'

White Rose and Classroom Secrets use 'small steps' to break down the teaching sequence into small achievable steps. Where children require additional support, 'scaffolds' are used to support children further to ensure that they have secured the knowledge before moving on. These 'scaffolds' may be in the form of returning to concrete resources or pictorial representations. For children who understand a concept quicker, challenges are used to deepen and challenge learners further within the curriculum area. These are evident in children's books as they are written in green pen and responded to in purple pen. Progression documents such as our calculation policy are carefully used to ensure that children are not being stretched outside their year group but rather deepened within it.

Within daily teaching, children will be reminded/taught fact sentences linked to previous/current learning which will constantly be referred to within the lesson. Through the use of spaced learning, they will have

many opportunities to apply these fact sentences; modelling will support children in developing their ability to reason and explain their answers using them.

Daily assessment is incorporated throughout the lesson through live and verbal feedback. Where children require additional support, 'Closing the Gaps' are used to support children ensuring that they are ready for the next 'small step'. Termly assessments are used as a diagnostic tool to ensure that teachers are adapting learning to meet the needs of all children and ensure that any necessary interventions are targeted specifically to meet the needs of children.

Times tables play an important part in our maths learning, with children developing their fluency and knowledge in rapid recall of tables up to  $12 \times 12$  by the end of year 4. While the rapid recall of times tables are being developed, children are also learning how to apply and manipulate their understanding of this to reason and solve problems. Children from Y1 – Y6 have the opportunity to consolidate and apply their times tables knowledge during Early Bird sessions every Thursday and Friday morning.



### **Maths impact:**

By the end of Year 6, transitioning to secondary school, we aspire that a Bishop King mathematician will have developed a bank of efficient and accurate skills, alongside mathematical knowledge that can be used to calculate effectively. These will have been underpinned by the C-P-A process so children understand rather than just do, which ultimately will allow children to identify when answers do not make mathematical sense. Children will be able to apply these calculation skills and understanding of other areas to become confident and resilient problem-solvers with the ability to reason and articulate their ideas mathematically. Due to the embedding of fact sentences, children will have the language and knowledge to be able to justify, reason and explain their answers.

4.0720

Can I use line graphs to solve problems?

**Fact sentences**

I know that to find the area of a parallelogram I need to...times the width by the height. ✓  
The formula is...  $l \times w$

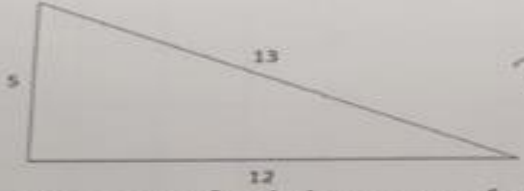
I know that to find the area of a triangle I need to...times the height by the width and half it ✓  
The formula is...  $(l \times w) \div 2$

I know that there are ...750...g in  $\frac{1}{4}$  kg. ✓  
Therefore, I can work out that there are ...2250...g in  $2\frac{1}{4}$ kg ✓

Ron and Annie watched the same channel, but at different times.  
The graph shows the number of viewers at different times

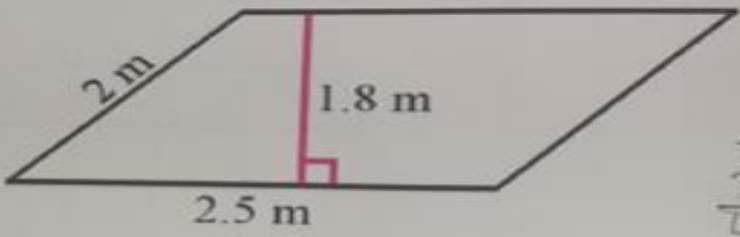
**Spaced Learning**

How can I find out the area of this triangle?



$30\text{cm}^2$  ✓

How can I find the area of this parallelogram?



$$\begin{array}{r} 1.8 \\ 2.5 \\ \times 90 \\ \hline 360 \\ \hline 4.50 \\ \hline \end{array}$$
 ✓