

## Maths Curriculum Policy

### Bennerley Fields School

#### Intent

Our curriculum enables pupils to develop mathematical skills so that they become:

- **Visualisers** – we use the Concrete, Pictorial, Abstract (CPA) approach to help pupils understand mathematics and to make connections between different representations.

Jack is dividing 84 by 4 using place value counters. First, he divides the tens. Then, he divides the ones.

Use Jack's method to calculate:  
 $69 \div 3$      $88 \div 4$      $96 \div 3$

If  $\bullet = -1$  and  $\bullet = 1$ , what is the total of each below?  
 Label them on the number line.

- **Describers** – we place great emphasis on mathematical language and questioning so pupils can discuss the mathematics they are doing, and so support them to take ideas further.

If I know the length and width of a rectangle, how can I calculate the perimeter? Can you tell me 2 different ways? Which way do you find the most efficient?

If I know the perimeter of a shape and the length of one of the sides, how can I calculate the length of the missing side?

Can a rectangle where the length and width are integers, ever have an odd perimeter? Why?

Which of these shapes are split into quarters and which are not?

How many more ways can you find to split a 4 by 4 dot grid into quarters?

- **Experimenters** – as well as being fluent mathematicians, we want pupils to love and learn more about mathematics.

How might this sequence continue?

Describe the ways in which your sequences are similar and how they are different.

Dora says,  
 The taller you are, the longer your shoes are.

Measure the height of people in your class and measure the length of their shoes.

Is Dora correct?

We want our pupils to:

- Develop fluency in the fundamentals of mathematics
- Develop conceptual understanding and the ability to recall and apply knowledge rapidly.
- To reason and problem solve by applying mathematics to a variety of increasingly complex problems.
- To build upon knowledge and understanding as they progress through school.
- To develop resilience that enables all students to reason and problem solve with increased confidence.

### **Implementation**

- The coverage overview in Appendix A ensures full topic coverage.
- We align our maths curriculum closely with the White Rose Maths (WRM) Programmes of Study. Our whole-school maths curriculum creates continuity and progression in the teaching of mathematics.
- Every class complete 4 maths lessons per week.
- Lessons include fluency, reasoning and problem solving.
- Lessons are differentiated to ensure there is appropriate challenge for all learners.
- Concrete manipulatives and pictorial representations are used to support conceptual understanding and to make links across topics.
- Formative assessments inform next steps
- Summative assessments using B Squared take place twice per year for all maths strands.

Our mathematics curriculum is also supplemented with other resources including: MathSeeds, Mathletics and Times Tables Rockstars (online platforms which develop mathematical knowledge and understanding).

### **Impact**

- Most pupils achieve their end of year expectations based on their starting points.
- Well planned sequences of learning support students to develop and refine their maths skills.
- Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each pupil. These factors ensure that we are able to maintain high standards, with an increasingly high proportion of pupils achieving upper quartile progress.
- Pupils are able to apply their knowledge to a range of increasingly complex problems.
- Pupils are reasoning with increased confidence and accuracy.