MATHS STATEMENT

INTENT

The 2014 National Curriculum for Mathematics states that maths is essential for everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

At Valewood, we plan for our children to become efficient in the three key areas of the mathematics curriculum:

- To become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- To reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- To problem solve by applying mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

In Reception, our younger children enjoy a rich mathematical environment and they have the opportunity to develop mathematical skills through play and more formal teacher led sessions, both inside and outside of the classroom. To develop a deeper understanding of number, the children are following the new Mastering Number programme, led by the NCETM, and a 'number of the week' approach across all mathematical areas following work with our local maths hub.

This Mastering Number programme continues throughout KS1 and all year groups from Y1 – Y6 follow the Teaching for Mastery approach, which focuses on the 5 'Big Ideas':

- Variation
- Fluency
- Mathematical Thinking
- Representation and Structure
- Coherence

By using this Teaching for Mastery approach, we provide all of our children with a well-planned sequence of lessons that enables them to achieve their age-related expectations, whilst providing them with numerous opportunities to deepen their learning and mathematical knowledge. All year groups also follow the CPA approach for teaching maths: concrete, pictorial and abstract, to cater for all of our children's differing learning styles.

When planning, teachers use the following activity types in their sequence of lessons:

- Review and Do – 10 minutes at the beginning of each lesson to recap previous learning.
- Hook – Activities which provide children with the opportunity to explore new learning, think and discuss mathematically, make links, reason and problem solve, which will often be collaborative with others.
- Independent Practice – Children will then complete independent maths work.

These activity types all follow a carefully planned, coherent small step approach and they will be seen over a series of lessons. We are currently using the NCETM prioritisation documents and the Ready to Progress criteria from the DFE for our whole-school maths curriculum and COVID recovery.

IMPLEMENTATION

1. Maths is taught each morning for one hour.
2. The children sit in mixed-ability pairings and work collaboratively on a variety of activities.
3. Concrete resources are modelled and used regularly with the children and they are readily available to all children in every year group.
4. STEM sentences are used for each key teaching point to provide our children with the correct mathematical vocabulary to support them in deepening their understanding of maths.
5. Each class has a maths 'Working Wall' which is updated regularly to support the children with their learning.

6. Each child has their own maths book in which their independent work is recorded. Each mixed-ability pairing also has a maths journal in which they complete collaborative work in together.
7. Lessons are planned to follow a coherent step and teachers adapt their plans regularly to prioritise certain units that the children need more emphasis on.
8. By using a mixed-ability mastery approach, our children are provided with activities that everyone can access, which provide challenges for them to explain their reasoning, problem solve and deepen their understanding.
9. Teachers use assessment for learning to inform the next steps of their planning at the end of each lesson.
10. Children are assessed using teacher assessment predictions and written assessments at the end of each term: Y1, Y3, Y4 and Y5 use NFER assessments; Y2 and Y6 use previous SATs papers.
11. Reception follow a mastery approach as well, utilising the new mastering number scheme of work alongside their EYFS curriculum objectives.
12. Teachers plan for same day intervention for children who may need extra time to understand mathematical concepts and this is led by our teaching assistants.
13. The subject leader will have the responsibility to lead, manage, monitor, evaluate and review the curriculum.

IMPACT

Our approach towards teaching and learning in maths ensures every child can access the three key National Curriculum areas. They learn in a visually stimulated way, with concrete resources available to all children, which enables them all to access their current year group objectives. All of the strategies outlined in this policy enable our children to become curious, resilient and competent mathematicians, who display a positive attitude towards their learning. The children are constantly challenged to deepen their own learning and we recognise their achievements each half-term during award assemblies.

Our school prides itself on valuing the children's personal strengths. We not only consistently improve the children's mathematical knowledge and skills, but we provide them with regular opportunities to deepen their learning in lessons and through homework activities. All of the children in our school have their pupil voice and regular pupil interviews are conducted to provide feedback on our mathematical teaching and learning strategies. To ensure knowledge is revised and transferred to the long-term memory, teachers consistently build on previous learning and use key questions to secure essential subject knowledge. Our Teaching for Mastery 'Maths for All' approach is already yielding success and, as we continue to sustain this approach in the upcoming academic years, we will continue to see a positive impact on the children's end of year outcomes.

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