Pegswood Primary School

Maths

Intention – Why?

● To nurture an existing enthusiasm for maths, and instil a sense of enjoyment around using number.
● To be enthusiastic mathematicians and to work hard in order to ensure that children develop an enjoyment and enthusiasm for maths that will stay with them throughout their lives and empower them in future life.
● To unlock mathematical fluency in order to being able to reason and solve problems mathematically.
● To develop a positive culture of deep understanding, confidence and competence in maths that produces strong, secure learning.
● To develop basic mathematical skills and understanding of mathematical concepts.
● To place great emphasis on the use of concrete resources and pictorial representations at all ages, to enable children to fully understand the concepts and principals, when presented with abstract calculations and questions.
●To have a maths curriculum that is progressive; at KS2 it is designed to develop competencies to equip pupils for KS3 where they will build on prior learning, make connections and solve increasingly sophisticated problems.

Implementation – How?

● 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 of mathematical concepts, which can be applied in a variety of contexts through reasoning and problem-solving challenges.
● Maths vocabulary is of paramount importance in maths and all staff model this and encourage the use of maths vocabulary by children. Maths displays show key vocabulary for units of work. Reasoning and problem solving opportunities provide the children with practice using mathematical vocabulary.
● 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 recognise.
● Our maths curriculum is also supported through the implementation of resources from Classroom Secrets, and Hamilton Trust. White Rose and Classroom Secrets use 'small steps' to break down the teaching sequence into small achievable steps.
● Where children require additional support, additional resources, such as "Twinkle," "Abacus," "My Maths," and "Grammarsaurus," are used to support children further to ensure that they have secured the small step before moving on.
● For children who understand a concept quicker, greater depth challenges are used to deepen and challenge learners further within the curriculum area.
● 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.
● Unit based assessments are used to assess children's progress from the beginning to the end of specific units. Assessments are used to highlight common misconceptions or gaps in knowledge and understanding. Gaps or misconceptions are targeted for individual students before moving on.
● We use a unique spiral approach to support pupils with revisiting their learning across the whole maths curriculum every week. "Smash Maths," aligns weekly practice questions to White Rose blocks of learning. This improves learning retention and develops a good depth of understanding for, whilst allowing the children to practice exam-style questions.
● Times tables play an important part in our maths learning, with children developing their fluency in rapid recall of tables up to 12 x 12 by the end of year 4. Children from Y1 – Y6 use Times Table Rock Stars to help to develop their fluency and rapid recall of times tables. While the rapid recall of times tables is being developed,

children are also learning how to apply and manipulate their understanding of this to reason and solve problems.

Impact – Wow!

- Children understand the relevance and importance of what they are learning in relation to real world concepts.
- Children know that maths is a vital life skill that they will rely on in many areas of their daily life.
- Children have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject in which they can investigate and ask questions; they know that it is OK to be 'wrong' and that this can strengthen their learning because the journey to finding an answer is most important.
- Children are confident to 'have a go' and choose the equipment they need to help them to learn along with the strategies they think are best suited to each problem.
- Our children have a good understanding of their strengths and targets for development in maths and what they need to do to improve.
- Our maths books evidence work of a high standard of which children clearly take pride; the range of activities demonstrate good coverage of fluency, reasoning and problem solving.
- Our feedback and interventions support children to strive to be the best mathematicians they can be, ensuring a high proportion of children are on track or above.