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| **The 3 I’s** | **Mathematics** | |
| **INTENT**  **(What we want pupils to learn and why – curriculum design – how and why it is sequenced the way it is)** | **Aims: what big ideas do we want OUR pupils to come out with from this subject.** | * Develop a deep understanding of mathematical concepts, emphasising fluency, reasoning, and problem-solving. * Foster a positive attitude towards mathematics, building resilience and confidence to tackle complex problems. * Enable pupils to make connections between different areas of mathematics and apply these skills to real-life situations. * Ensure all pupils, regardless of starting point, are able to articulate mathematical concepts clearly. * Promote the ability to think logically, work systematically, and reason through challenges using mathematical language. |
| **Organisation of curriculum and sequencing:** | * Maths is taught daily in each class for approximately one hour, ensuring consistent practice and reinforcement of key skills. * Each lesson begins with an '8 to do' retrieval quiz to consolidate prior learning and assess retention of key concepts. * The curriculum is structured around a mastery approach, following the White Rose Maths framework to ensure consistent progression. * Flexibility is built into the curriculum to allow teachers to address gaps in knowledge, ensuring a tailored approach to meet pupils' individual needs. * Key concepts are revisited through a spiral curriculum, ensuring retention and depth of understanding over time. * Lessons are sequenced to build upon prior knowledge, with clear links between topics to reinforce learning and encourage cumulative understanding. * Regular assessment and formative feedback are used to inform the next steps in learning, ensuring a responsive and dynamic approach to teaching. |
| **IMPLEMENTATION**  **(How the curriculum - inc. cultural capital - is taught and assessed so our children develop knowledge, skills, understanding & SHINE)** | **Teaching & adapting to learners needs:** | * Lessons follow the mastery approach, ensuring all pupils grasp concepts before moving on, with scaffolding provided for those who need additional support. * Teachers use formative assessment strategies during lessons to identify and address misconceptions immediately. * Differentiation is embedded in planning, with resources and activities tailored to the varying needs of learners, including targeted support for lower-attaining pupils and extensions for higher-attaining pupils. * Teachers have flexibility to deviate from the White Rose Maths timetable to revisit and reteach areas where gaps in understanding are identified. * A range of manipulatives, visual aids, and practical activities are used to support varied learning styles and ensure all pupils can access the curriculum. |
| **What, How and When we assess learning** | * Daily retrieval quizzes, such as the '8 to do', assess prior knowledge and provide insight into areas that need revisiting. * Formative assessments through questioning, discussions, and in-class tasks inform real-time adjustments to teaching. * Regular summative assessments, including end-of-unit tests and termly assessments, are used to monitor progress against national benchmarks – this information then informs the standards report. * Assessment data is used to track individual progress, inform planning, and provide targeted interventions where necessary. * Feedback is timely, with an emphasis on verbal feedback during lessons and next steps clearly communicated to pupils. |
| **How and when we make links to other subjects:** | * Cross-curricular links are made with subjects such as science (data handling, measurement), geography (coordinates, scale), and technology (coding and algorithms) to show real-world applications of maths. * Problem-solving activities are designed to align with themes in other subjects, encouraging pupils to transfer their mathematical skills across the curriculum. * Maths is integrated into daily routines, such as timetable calculations and budget planning for school projects, helping students see the relevance of maths in everyday life. |
| **Cultural capital – visit / visitors / clubs** | * Educational visits/days, such as trips to museums or STEM-focused exhibitions/days, offer pupils the chance to experience maths in a wider context, enhancing their cultural capital. * Participation in national maths challenges and competitions encourages pupils to engage with maths beyond the classroom, promoting both enjoyment and achievement. |
| **IMPACT**  **(Key impact and how we will measure and monitor)** | **Monitoring and evaluating outcomes** | * **Foundation Stage**: By the end of Foundation Stage, pupils should be proficient in counting to 20, recognising and ordering numbers, and using basic mathematical language for shape, space, and measures. * **Year 2**: By the end of Year 2, pupils should confidently recall basic addition and subtraction facts, understand place value, and begin to work with multiplication and division. They should also be able to solve simple problems involving money, time, and measures. * **Year 4**: By the end of Year 4, pupils should be proficient in recalling all multiplication tables up to 12x12, understanding fractions and decimals, and solving problems involving four operations. They should also use reasoning skills to justify their answers. * **Year 6**: By the end of Year 6, pupils should demonstrate fluency in calculations involving all four operations, have a solid understanding of fractions, decimals, and percentages, and apply mathematical reasoning to multi-step problems. They should also be able to use algebra and geometry confidently. * Monitoring and Assessment: Regular book scrutinies and lesson observations are conducted to assess consistency in teaching quality, progression, and pupil engagement. Marking and feedback are checked for evidence of pupils’ understanding, with attention to whether misconceptions have been addressed and next steps identified. Pupil voice interviews and assessments also help evaluate overall outcomes. * *Pupil and staff voice tells us what is working well.* * *Data Tracking: Assessment data is inputted onto OTrack, which allows for ongoing analysis of pupil progress and informs the writing of standards reports, ensuring that performance across the school is consistently monitored and addressed.* |