CURRICULUM SUBJECT OVERVIEW – MATHS

'The essence of Mathematics is not to make simple things complicated, but to make complicated things simple.'
- S Gudder.

'Through Faith, Friendship and Fun we Learn and Grow'

In Mathematics, this vision manifests as a journey of discovery where Faith is found in the pursuit of absolute truth and the appreciation of the orderly, awe-inspiring patterns that underpin the universe. Friendship is cultivated through collaborative problem-solving and mathematical talk, where pupils work together to untangle complex logic and support one another's understanding. The subject remains rooted in Fun by utilizing puzzles, games, and practical investigations that transform abstract concepts into engaging challenges. As children Learn the core fluencies of number, shape, and measure, they significantly Grow in character; the inevitable "wrong answer" becomes a vital part of the process, building the resilience and grit needed to persevere through difficulty until a solution is found.

Spirituality

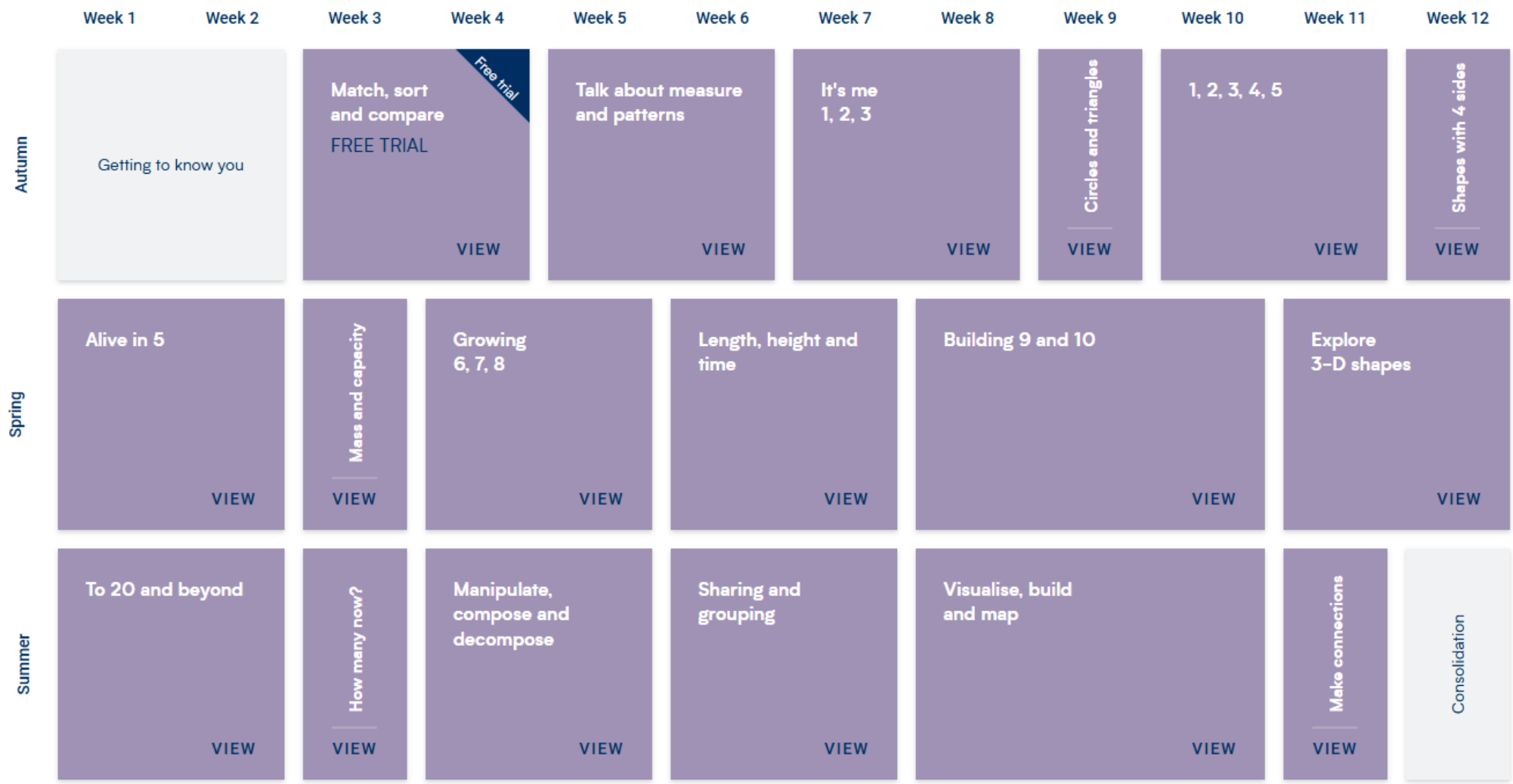
Mathematics promotes spirituality by encouraging a sense of awe and wonder at the hidden patterns, symmetry, and infinite nature of the universe, revealing an underlying order that transcends the physical world. It provides opportunities for pupils to reflect on the concept of absolute truth and the "genius" of mathematical discovery, fostering a deep appreciation for the elegance of a perfectly solved equation. Through the struggle of problem-solving, children develop a resilient spirit, finding personal growth in the transition from confusion to clarity. This journey allows them to contemplate "big ideas" like infinity and the void, helping them to sense a connection between the precision of numbers and the vast, intangible mysteries of existence.

Intent	Implementation	Impact
Our intent for the mathematics curriculum at Defford School is to foster a deep, lasting understanding of mathematical concepts and to instil a love for learning through a balanced approach that nurtures confidence, curiosity, and resilience. We aim to provide students with a strong foundation in number fluency, problem-solving, and logical reasoning, equipping them with essential skills to succeed in both mathematics and other areas of learning. Our curriculum is designed to engage students through hands-on, inquiry-based learning that promotes critical thinking and encourages them to explore multiple approaches to solving problems. We focus on developing students' ability to persevere through challenges, fostering patience and resilience. By connecting mathematical concepts to real-world applications, we help students appreciate the relevance and importance of mathematics in their daily lives and future ambitions. We are committed to creating an inclusive and supportive environment where every child feels confident and capable of achieving their potential in mathematics. Collaborative learning opportunities allow students to develop effective communication and teamwork skills, while also building respect for different perspectives and approaches. Ultimately, our mathematics curriculum aims to cultivate a community of curious, reflective, and capable learners who are well-prepared for the next stages of their education and inspired to use their mathematical knowledge positively in the world.	We structure our mathematics around the White Rose curriculum from EYFS to Year 6. This is to ensure that the distinct domains of mathematics are covered in sufficient depth and clarity. The White Rose curriculum structures the learning within these domains so that knowledge, concepts and procedures are carefully sequenced over time to build skills and knowledge systematically. We also ensure that we use the most up to date White Rose curriculum, which is revised each year based on research and teacher feedback. However, we do not use the White Rose resources exclusively as we want to ensure that teachers remain able to adapt and alter the learning to fit the needs of their pupils. This allows teachers to draw on Nrich, NCETM resources, and others, to ensure that the needs of the children in their class are being met. We use a three-step approach to teaching mathematics, based on the ideas of Steve Lomax and the Glow MATHSHUBS. In lessons, this takes on the following structure: Teach it, Practise it, Do it, Twist it (challenging understanding) and Deepen it (challenging mathematical thinking). This approach allows children rich opportunities to develop their fundamental knowledge while still providing variation in which they can build their fluency, reasoning and problem solving. The structure and connections within mathematics are emphasised, so that pupils develop deep learning that can be sustained. Lesson design identifies the new mathematics that is to be taught, the key points, the difficult points and a carefully sequenced journey through the learning. Teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children keep up. Children's explanations and their proficiency in articulating mathematical reasoning, with the precise use of mathematical vocabulary, are supported using stem sentences provided by the teacher. Key facts such as multiplication tables and addition facts within 10 are learnt to automaticity to avoid cognitive overload in the working memory and enable pupils to focus on new concepts. The curriculum is designed to have an emphasis on number, with a large proportion of time spent reinforcing number to build competency. Lessons are planned to provide plenty of opportunities to build reasoning and problem-solving elements into the curriculum. When introduced to a new concept, children can use concrete objects and manipulatives to help them understand what they are doing. Alongside this, children are encouraged to use pictorial representations. These representations can then be used to help reason and solve problems. Both concrete and pictorial representations support children's understanding of abstract methods. Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. These teaching blocks are broken down into smaller steps, to help children understand concepts better. This approach means that children do not cover too many concepts at once which can lead to cognitive overload. Each lesson phase provides the means for children to achieve greater depth, with children who are quick to grasp new content, being offered rich and sophisticated problems, within the lesson as appropriate.	Defford School has a supportive ethos, and our approaches support the children in developing their collaborative and independent skills, as well as empathy and the need to recognise the achievement of others. Children can under perform in Mathematics because they think they cannot do it or are not naturally good at it. The school's use of White Rose Maths addresses these preconceptions by ensuring that all children experience challenge and success in Mathematics by developing a growth mindset. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. By the time the children leave Defford School we aim for each of them to be confident in the application of their fundamental maths skills in a variety of situations. They should be able to leverage this understanding to solve problems both mathematical and logical and use this to reason effectively. They will be able to then present a justification, argument or proof using mathematical language. We also want our children to have an appreciation for Maths more widely and how it is applied to a variety of real-life contexts both mundane and wondrous. With this, they can discover, nurture and share their gifts wherever they take them.

Willow – EYFS Pre-school Yearly Plan

Comparison 1 **More than, fewer than, same** VIEW	Shape, space and measure 1 **Explore and build with shapes and objects** VIEW	Pattern 1 **Explore repeats** VIEW	Counting 1 **Hear and say number names** VIEW	Counting 2 **Begin to order number names** VIEW	Subitising 1 **I see 1, 2, 3** VIEW
Pattern 2 **Join in with repeats** VIEW	Shape, space and measure 2 **Explore position and space** VIEW	Subitising 2 **Show me 1, 2, 3** VIEW	Counting 3 **Move and label 1, 2, 3** VIEW	Shape, space and measure 3 **Explore position and routes** VIEW	Pattern 3 **Explore own first patterns** VIEW
Counting 4 **Take and give 1, 2, 3** VIEW	Shape, space and measure 4 **Match, talk, push and pull** VIEW	Subitising 3 **Talk about dots** VIEW	Comparison 2 **Compare and sort collections** VIEW	Pattern 4 **Lead on own repeats** VIEW	Shape, space and measure 5 **Start to puzzle** VIEW
Pattern 5 **Making patterns together** VIEW	Subitising 4 **Make games and actions** VIEW	Counting 5 **Show me 5** VIEW	Pattern 6 **My own pattern** VIEW	Counting 6 **Stop at 1, 2, 3, 4, 5** VIEW	Comparison 3 **Match, sort, compare** VIEW

Willow – EYFS Reception Yearly Plan



Birch – Year 1 and Year 2 Mixed Age Yearly Plan

Oak – Year 3 and Year 4 Mixed Age Yearly Plan

Ash – Year 5 and Year 6 Mixed Age Yearly Plan


Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn
Number
Place value
FREE TRIAL
Free trial
VIEW
Number
Addition and subtraction
VIEW
Number
Multiplication and division A
VIEW
Number
Fractions A
VIEW
Number
Multiplication and division B
VIEW
Spring
Number
Multiplication and division B continued
VIEW
Number
Fractions B
VIEW
Number
Decimals A
VIEW
Measurement
Area, perimeter and volume
VIEW
Number
Decimals B
VIEW
Number
Fractions, decimals and percentages
VIEW
Summer
Ratio
VIEW
Algebra
VIEW
Geometry
Shape
VIEW
Geometry
Position and direction
VIEW
Statistics
VIEW
Measurement
Converting units
VIEW