Curriculum Overview for Mathematics

Year 7

NP5: Order of Operations

Disciplinary knowledge
- Recall the commutative and associative law of addition and multiplication
- Know the order of operations (not referring to BIDMAS/BODMAS)

Procedural knowledge
- Calculate answers using the order of operations
- Work with exponents

Contextual knowledge
- Change the order of operations using brackets

	Reading like a Mathematician Subject specific vocabulary definitions and choral response Reading reasoning and problem-solving questions
	Brackets, grouping, groups, exponents, power, index (pl. indices), multiplication, division, multiplicative, addition, subtraction, additive
	End of unit assessment with feedback lesson to address misconceptions Content from this unit will be included in the formal endpoint assessment
	1 hour of Sparx Maths homework needs to be completed every week Revision for formal assessment using provided revision booklet

NP6: Directed Number

Disciplinary knowledge
- Use the number line, including positives and negatives
- Know the multiplicative rules with directed number
- Represent calculations with negative numbers

Procedural knowledge
- Recognise and represent zero pairs
- Compare positive and negative numbers
- Add negative numbers to positive numbers
- Add negative numbers to negative numbers
- Add positive numbers to negative numbers
- Subtract negative numbers from positive numbers
- Subtract negative numbers from negative numbers
- Subtract positive numbers from negative numbers
- Subtract positive numbers from positive numbers that cross zero
- Multiply positive and negative numbers

	Reading like a Mathematician Subject specific vocabulary definitions and choral response Reading reasoning and problem-solving questions
	Directed number, negative, positive, zero, zero pair, multiplicative, additive, less than, greater than, less than or equal to, greater than or equal to
	End of unit assessment with feedback lesson to address misconceptions Content from this unit will be included in the formal endpoint assessment
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- Multiply two negative numbers
- Divide positive and negative numbers
- Divide with two negative numbers

Contextual knowledge
- Multiply with multiple negative numbers
- Divide with multiple negative numbers
- Exponents with negative numbers

NP7: Fractions **Disciplinary knowledge** • Represent fractions • Identify fractions greater than 1 • Represent division as a fraction **Procedural knowledge** • Convert between mixed numbers and improper fractions • Find the fractional complements of 1 • Find equivalent fractions • Simplify fractions • Order fractions • Add fractions • Subtract fractions • Multiply fractions • Divide fractions • Find fractional amounts • Represent a number as a fraction of another **Contextual knowledge** • Divide fractions as numerator ÷ numerator and denominator ÷ denominator • Find the whole from a fractional change • Reason and problem solve with fractions		Reading like a Mathematician Subject specific vocabulary definitions and choral response Reading reasoning and problem-solving questions
		Numerator, denominator, mixed number, improper fraction, integer, simplify, equivalent, less than, greater than, less than or equal to, greater than or equal to, multiply, divide, reciprocal, fractional amount
		End of unit assessment with feedback lesson to address misconceptions Content from this unit will be included in the formal endpoint assessment
		1 hour of Sparx Maths homework needs to be completed every week Revision for formal assessment using provided revision booklet