Year 5			
Children know how to:	Opportunities and ideas for journaling. <u>"How do mathematicians"</u>	Problem Solving and reasoning opportunities	NCETM Spine and Assessment Materials
AUTUMN			
Number: Place Value (3 WEEKS)			Year 5 Spine 1
Numbers to 10000	How do mathematicians count	NRICH	1.26: TP 1.1- 1.12
Roman Numerals to 1000	in?	Space distances	
Round to nearest 10, 100 and 1000		Tug harder	
Numbers to 100000	How do mathematicians count	Swimming pool	1.26: TP 2.1-2.6, 3.1-3.3,
Compare and order numbers to 100000	below 0?	<u>Sea level</u>	4.1-4.8
Round numbers within 100000			
Counting in 10s, 100s, 1000s, 10000s and 100000s		<u>I See Reasoning</u>	1 26: TD 5 1 5 9
Compare and order numbers to one million		Page 10 20	1.20. TP 5.1-5.0
Round numbers to one million		Fage 19-29	Yr5 NCETM assessment
Negative numbers			materials
			Page 9-10
Number: Addition and Subtraction (2 WEEKS)			Year 5 Spine 1
Add whole numbers with more than 4 digits (column	How do mathematicians use	NRICH	1.28: TP 1.1- 1.12, 2.1-2.7,
method)	inverse operations?	Twenty Divided Into Six	3.1-3.7, 4.1-4.6
Subtract whole numbers with more than 4 digits (column		<u>Maze 100</u>	1.29: TP 1.1-1.10, 2.1-2.9,
method)		Six Ten Total	3.1-3.14, 4.1-4.8, 5.1-5.7,
Round to estimate and approximate	_	Six Numbered Cubes	6.1-6.8
Inverse operations (addition and subtraction)		Reach 100	
Multi-step addition and subtraction problems			Yr5 NCE I M assessment
		<u>I See Reasoning</u>	Materials Dago 11, 12
		Fage 33-47	Fage 11-15
Statistics (1 WEEKS)			Year 5 Spine 1
Read and interpret line graphs	How do mathematicians	I See Reasoning	1.26: TP 6.1-6.4
Draw line graphs	interpret tables?	Page 125-129	1.27: TP 6.1-6.4
Use line graphs to solve problems]	-	
Read and interpret tables	How do mathematicians read		Yr5 NCETM assessment
Two-way tables	line graphs?		materials
Timetables			Page 28-29

Number: Multiplication and Division (1) (2 WEEKS)			Year 5 Spine 2
Multiples	White Rose Activities	NRICH	2.18: TP 1.1-1.9, 2.1-2.11
Factors		Sweets in a Box	
Common factors	Prime numbers	Which Is Quicker?	2.21: TP 5.1-5.6
Prime numbers		Multiplication Squares	2.21: TP 1.1- 1.7, 2.1-2.6,
Square numbers	How do mathematicians find	Flashing Lights Abundant	6.1-6.3
Cube numbers	factors?	Numbers Factors and	2.22: TP 2.1- 2.5
Multiply by 10, 100 and 1000		<u>Multiples Game</u>	
Divide by 10, 100 and 1000	How do mathematicians	Pebbles	2.21: TP 3.1- 3.3, 4.1-4.3
Multiples of 10, 100 and 1000	identify prime numbers?	Three Dice	
		Factor Track	2.19: TP 4.1-4.4
		Iwo primes make one	
		<u>square</u>	Yr5 NCE IM assessment
		All the digits	materials
		<u>Irebling</u>	Page 14-16
		DIVISION TURES	
		Multiply multiples 2	
		Multiply multiples 3	
		Up and Down Staircases	
		op and bown otalicases	
		LSee Reasoning	
		Page 48-73	
Measurement: Perimeter and Area (2 WEEKS)			
Measure perimeter	How do mathematicians	NRICH	Yr5 NCETM assessment
Calculate perimeter	measure perimeter?	Area and perimeter	materials
Area of rectangles		Through the window	Page 21-24
Area of compound shapes	How do mathematicians	Shaping It	-
Area of irregular shapes	measure area?	Brush Loads	
		<u>Cubes</u>	
		Numerically Equal Making	
		Boxes	
		<u>Ribbon Squares</u>	
		<u>Fitted</u>	
		<u>I See Reasoning</u>	
		Page 103-110	

Measurement: Time (1 WEEK)			Year 4 Spine 1
Revision of Year 4 content	How do mathematicians read	I See Reasoning	1.24 TP: 5.9
	the time?	Page 129-134	
			Yr4 NCETM assessment
	How do mathematicians		materials
	convert time?		Page 22-24
SDDING			
SPRING Number: Multiplication and Division (2) (2 WEEKS)			
Multiply 4 digits by 1 digits			
Multiply 2 digits (area model)			
Multiply 2 digits by 2 digits			
Multiply 2 digits by 2 digits			
Multiply 3 digits by 2 digits			
Divide 4 digits by 1 digit			
Divide with remainders			
Number: Fractions (6 WEEKS)			
Equivalent fractions			
Improper fractions to mixed numbers			
Mixed numbers to improper fractions			
Number sequences			
Compare and order fractions less than 1			
Compare and order fractions greater than 1			
Add and subtract fractions			
Add fractions within 1			
Add 3 or more fractions			
Add fractions			
Add mixed numbers			
Subtract fractions			
Subtract mixed numbers			
Subtract- breaking the whole			
Subtract 2 mixed numbers			
Multiply unit fractions by an integer			
Multiply non-unit fractions by an integer			
Multiply mixed numbers by integers			
Fraction of an amount			
Using fractions as operators			
Number: Decimals and Percentages (2 WEEKS)			
Decimals up to 2 dp			

Decimals as fractions (1)		
Decimals as fractions (2)		
Understand thousandths		
Thousandths as decimals		
Rounding decimals		
Order and compare decimals		
Understand percentages		
Percentages as fractions and decimals		
Equivalent FDP		
SUN	/MER	
Number: 4 Operations revision (1 WEEK)		
Number: Decimals (4 WEEKS)		
Adding decimals within 1		
Subtracting decimals within 1		
Complements to 1		
Adding decimals- crossing the whole		
Adding decimals with the same number of decimal places		
Subtracting decimals with the same number of decimal		
places		
Adding decimals with a different number of decimal places		
Subtracting decimals with a different number of decimal		
paces		
Adding and subtracting wholes and decimals		
Decimal sequences		
Multiplying decimals by 10, 100 and 1000		
Dividing decimal by 10, 100 and 1000		
Geometry: Properties of shape (3 WEEKS)		
Measuring angles in degrees		
Measuring with a protractor (1)		
Measuring with a protractor (2)		
Drawing lines and angles accurately		
Calculating angles on a straight line		
Calculating angles around a point	4	
Calculating lengths and angles in shapes		
Regular and irregular polygon	4	
Reasoning about 3D shapes		
Geometry: Position and Direction (1 WEEK)		
Position in the first quadrant		

Reflection		
Reflection with co-ordinates		
Translation		
Translation with co-ordinates		
Measurement: Converting Units (2 WEEKS)		
Kilograms and kilometres		
Milligrams and millilitres		
Metric units		
Imperial units		
Converting units of time		
Timetables		
Measurement: Volume (1 WEEK)		
What is volume?		
Compare volume		
Estimate volume		
Estimate capacity		