



PRIMARY MATHEMATICS COURSE MAPPING

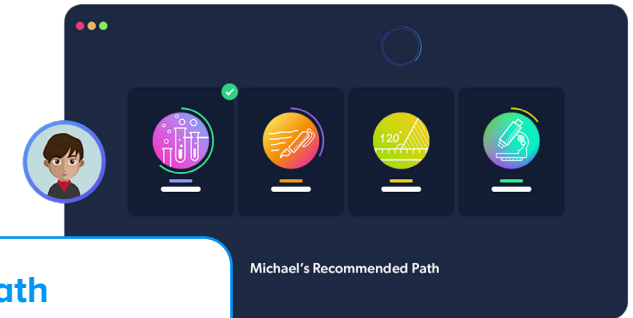
Supercharge learning through personalisation



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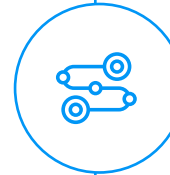
February 2022

HOW CENTURY WORKS



Diagnostics

Learners begin by completing diagnostics that quickly identify knowledge gaps and misconceptions, and help CENTURY recommend the best learning materials for each individual learner.



Recommended Path

This constantly adapting personalised pathway contains micro-lessons designed to address gaps in knowledge, provide stretch and challenge and promote long-term memory retention.



Leadership Dashboard

Senior and middle leaders get an overview of performance and engagement on a subject, class and learner level.



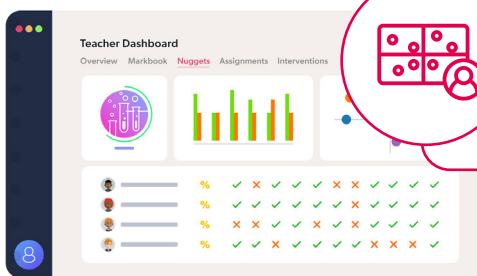
Achievements

Learners get rewarded with badges and streaks for completing micro-lessons or using CENTURY over a certain period of time to increase their motivation and engagement.



Automated Marking

Teachers can view data in real time, to help you quickly identify which learners require additional support or further stretch.

A screenshot of the "Teacher Dashboard" interface. It shows a navigation bar with "Overview", "Markbook", "Nuggets", "Assignments", and "Interventions". Below the navigation bar, there are several charts and a table. The table has columns for "Nuggets" and "Status", with rows showing percentages and checkmarks/crosses.

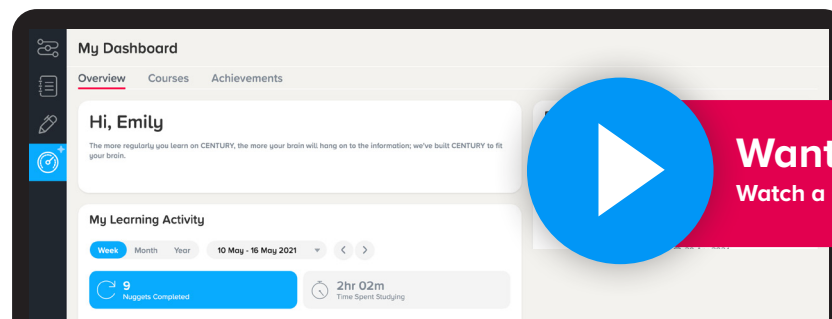
Teacher Dashboard

Use the markbook to monitor individual learners and whole-class trends with a range of dashboards.



Learner Dashboard & Guardian Portal

Learners can identify their strengths and areas for improvement. Parents and guardians can monitor their learner's progress, completed work, and see work set.



Want to see this in action?
Watch a CENTURY platform walkthrough

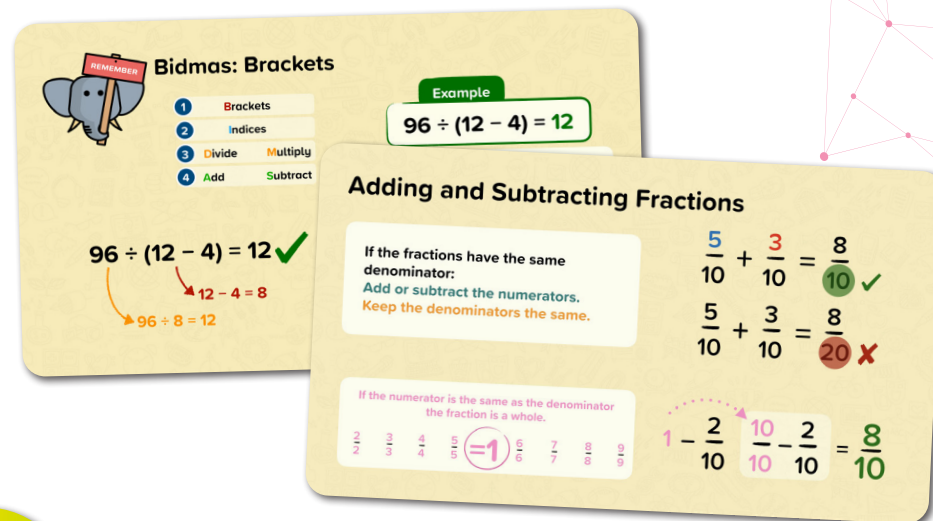


CURRICULUM OVERVIEW

	PRIMARY				SECONDARY					FURTHER EDUCATION
	Year 3 Age 7–8 Grade 2	Year 4 Age 8–9 Grade 3	Year 5 Age 9–10 Grade 4	Year 6 Age 10–11 Grade 5	Year 7 Age 11–12 Grade 6	Year 8 Age 12–13 Grade 7	Year 9 Age 13–14 Grade 8	Year 10 Age 14–15 Grade 9	Year 11 Age 15–16 Grade 10	Age 16+
ENGLISH	Year 3 SPaG				English Language KS3					FE English Language GCSE
	Year 4 SPaG				English Language KS3 Reading					FE English SPaG
	Year 5 SPaG				English SPaG Secondary					English Functional Skills (Entry 1)
	Year 6 SPaG				English Literature: Shakespeare Courses					English Functional Skills (Entry 2)
	Year 3 & 4 Reading Comprehension		Year 5 & 6 Reading				English Language GCSE			English Functional Skills (Entry 3)
							English SPaG GCSE			English Functional Skills (Level 1)
						English Literature: Text Courses			English Functional Skills (Level 2)	
						English Literature: Poetry Courses				
MATHS	Year 3 Maths				Mathematics Secondary (F+)					FE Mathematics GCSE (F)
	Year 4 Maths				Mathematics Secondary (F)					FE Mathematics GCSE (H)
	Year 5 Maths					Mathematics Secondary (H)			Maths Functional Skills (Entry 1)	
	Year 6 Maths				Mathematics IGCSE: Cambridge (Core)				Maths Functional Skills (Entry 2)	
	Multiplication Tables					Mathematics IGCSE: Cambridge (Extended)			Maths Functional Skills (Entry 3)	
			Year 5 & 6 Arithmetic		Mathematics IGCSE: Edexcel (F)				Maths Functional Skills (Level 1)	
					Mathematics IGCSE: Edexcel (H)			Maths Functional Skills (Level 2)		
								Bridge to A-Level		
SCIENCE	Year 3 Science				KS3 Biology					
		Year 4 Science			KS3 Chemistry					
			Year 5 Science		KS3 Physics					
				Year 6 Science			Biology, Chemistry & Physics GCSE			
	KS2 Science						Science Combined GCSE: AQA Trilogy			
							Biology, Chemistry & Physics IGCSE: Edexcel			
						Double Award IGCSE: Edexcel				
OTHER			11+ Verbal Reasoning							Essential Digital Skills (Entry 3)
			11+ Non-Verbal Reasoning							Essential Digital Skills (Level 1)
			11+ English							
			11+ Mathematics							

Primary Mathematics

This course covers the English national curriculum for each specific year group in KS2. Learner data moves with the student through the courses.



Year 3 Mathematics
National Curriculum Mapping



Year 4 Mathematics
National Curriculum Mapping



Year 5 Mathematics
National Curriculum Mapping



Year 6 Mathematics
National Curriculum Mapping



Year 3 Mathematics
White Rose Maths Mapping



Year 4 Mathematics
White Rose Maths Mapping



Year 5 Mathematics
White Rose Maths Mapping



Year 6 Mathematics
White Rose Maths Mapping

Primary Mathematics



Multiplication Tables

55 Nuggets

This course is designed to develop fluency and recall of multiplication tables. It includes each of the times tables, mixed tables tests and practice tests of increasing difficulty.

$$2 \times 3 =$$

6

Correct

NEXT QUESTION

$$11 \times 4 =$$

44

I DON'T KNOW

SUBMIT ANSWER

$$9 \times 3 =$$

29

Incorrect

Correct answer is:
27

NEXT QUESTION



Finding multiples of 10% of an amount

20% of 600 =

$$20\% = 10\% + 10\%$$
$$20\% = 10\% \times 2$$

$$10\% = 600 \div 10$$
$$= 60$$

$$60 \times 2 = 120$$

Divide the amount by 10 to find 10%.

$$600 \div 10 = 60$$

Multiply by the multiple of 10.

$$10\% \times 2 = 20\%$$

$$60 \times 2 = 120$$



Long Division 2

$$\begin{array}{r} 23 \\ 23 \overline{) 516} \\ \underline{46} \\ 56 \\ \underline{46} \\ 10 \\ \underline{10} \\ 0 \end{array}$$

$$23 \times 10 = 230$$

$$23 \times 20 = 460$$

$$23 \times 30 = 690$$

$$23 \times 40 = 920$$

$$23 \times 50 = 1150$$

$$23 \times 60 = 1380$$

$$23 \times 70 = 1610$$

$$23 \times 80 = 1840$$

$$23 \times 90 = 2070$$

$$23 \times 100 = 2300$$

- You are given this
- Multiply by 10
- Subtract 1x from 10x
- Find the highest multiple of the divisor without exceeding the dividend using subtraction.
- Subtract this from the dividend.
- Pull down the next number if needed.
- Remember you can still use doubling to help you.

92

2 marks



Year 5 & 6 Arithmetic

70 Nuggets

This course is designed for students to practise fluency and recall in number skills. It includes several practice papers and is designed specifically to help students prepare for the SATs arithmetic assessment.

34 55% of 2,400 =

$$55\% = 50\% + 5\%$$
$$50\% = 2400 \div 2$$
$$= 1200$$

$$5\% = 50\% \div 10$$
$$1200 \div 10$$
$$= 120$$

1 mark

Primary – Year 3 Mathematics

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	count from 0 in multiples of 4, 8, 50 and 100	Counting in Multiples of 4 [PM1.01]
		Counting in Multiples of 8 [PM1.02]
		Counting in Multiples of 50 [PM1.03]
		Counting in Multiples of 100 [PM1.04]
	recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)	3-Digit: Recognising Place Value [PM1.05]
	identify, represent and estimate numbers using different representations	3-Digit: Representing Numbers up to 1000 [PM1.06]
	find 10 more or 10 less than a given number	3-Digit: Finding 10 More or 10 Less [PM1.07]
	find 100 more or 100 less than a given number	Finding 100 More or 100 Less [PM1.08]
	compare and order numbers up to 1,000	Comparing Numbers with Greater Than and Less Than Symbols $<$ $>$ [PM1.09]
		Ordering Numbers up to 1000 [PM1.10]
	read and write numbers up to 1,000 in numerals and in words	Reading and Writing Numbers up to 1000 [PM1.11]
Addition and Subtraction	add and subtract numbers mentally, including: a three-digit number and 1s a three-digit number and 10s a three-digit number and 100s	3-Digit: Adding and Subtracting 1s [PM2.01]
		3-Digit: Adding and Subtracting 10s [PM2.02]
		3-Digit: Adding and Subtracting 100s [PM2.03]
	add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction	3-Digit: Column Addition (no Exchanging) [PM2.04]
		3-Digit: Column Addition (with Exchanging) [PM2.05]

		3-Digit: Column Subtraction (no Exchanging) [PM2.06]
		3-Digit: Column Subtraction (with Exchanging) [PM2.07]
		3-Digit: Addition and Subtraction Practice 1 [PM2.08]
		3-Digit: Addition and Subtraction Word Problems 1 [PM2.09]
	estimate the answer to a calculation and use inverse operations to check answers	3-Digit: Rounding to the Nearest 10 and 100 [PM2.10]
		Estimating Using Rounding [PM2.11]
		Checking Answers Using the Inverse 1 [PM2.12]
Multiplication and Division	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Multiplying by 3 [PM3.01]
		Multiplying by 4 [PM3.02]
		Multiplying by 8 [PM3.03]
		Mixed Multiplication [PM3.04]
		Dividing by 3 [PM3.05]
		Dividing by 4 [PM3.06]
		Dividing by 8 [PM3.07]
		Mixed Division [PM3.08]
	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Multiplying Multiples of 10 [PM3.09]
		Multiplying Using Partitioning [PM3.10]
		Multiplying Using the Grid Method [PM3.11]
		Short Multiplication [PM3.12]
		2- Digit: Dividing Using Partitioning (No Remainders) [PM3.60]
		2- Digit: Dividing Using Partitioning (With Remainders) [PM3.61]
		Short Division 1 (No Remainders) [PM3.13]
		Short Division 2 (with Remainders) [PM3.14]
		Multiplication and Division Practice 1 [PM3.15]
		Multiplication and Division Word Problems 1 [PM3.16]

Fractions	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	Identifying Fractions [PM4.01]
	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	Tenths [PM4.02]
	compare and order unit fractions, and fractions with the same denominators	Comparing and Ordering Fractions [PM4.03]
	add and subtract fractions with the same denominator within one whole [for example, $+$ =]	Adding and Subtracting Fractions [PM4.04]
	recognise and show, using diagrams, equivalent fractions with small denominators	Equivalent Fractions 1 [PM4.05]
	recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	Finding Unit Fractions of Amounts [PM4.06]
		Finding Non-Unit Fractions of Amounts [PM4.07]
		Finding Fractions of Amounts [PM4.08]
Measurement	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Units of Measure [PM5.01]
		Length [PM5.02]
		Solving Length Problems [PM5.03]
		Mass and Weight [PM5.04]
		Solving Mass Problems [PM5.05]
		Volume and Capacity [PM5.06]
		Solving Volume and Capacity Problems [PM5.07]
	measure the perimeter of simple 2-D shapes	Perimeter by Counting [PM5.08]
		Calculating the Perimeter [PM5.09]
	pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately.	Adding Amounts of Money [PM6.01]
		Adding Amounts of Money 2 [PM6.02]
	add and subtract amounts of money to give change, using both £ and p in practical contexts	Finding Change 1 (from £1) [PM6.14]
		Finding Change 2 [PM6.03]
	add and subtract amounts of money to give change, using both £ and p in practical contexts	Subtracting Amounts of Money [PM6.04]

	pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately.	Solving Money Problems 1 [PM6.05]
	know the number of seconds in a minute and the number of days in each month, year and leap year	Units of Time [PM7.01]
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight	Times of Day [PM7.02]
		Telling the Time in Words [PM7.03]
		Telling the Time to the Nearest 5 Minutes [PM7.04]
		Telling the Time to the Nearest 5 Minutes in Words [PM7.05]
		Telling the Time to the Nearest Minute [PM7.06]
		Roman Numerals (up to 20) [PM7.07]
		Telling the Time with Roman Numerals [PM7.08]
		12 Hour and 24 Hour Clocks [PM7.09]
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight	Estimating Time [PM7.10]
	compare durations of events [for example, to calculate the time taken by particular events or tasks]	Finding the Duration [PM7.11]
		Start and End Times [PM7.12]
Geometry - Properties of Shapes	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Describing 2D Shapes [PM8.01]
		Describing 3D Shapes [PM8.02]
		Nets of Shapes [PM8.03]
	recognise angles as a property of shape or a description of a turn	Angles in Turns 1 [PM8.04]
	identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle	Identifying Angles [PM8.05]
	identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Identifying Lines [PM8.06]
		Lines of Symmetry [PM8.07]

Statistics	interpret and present data using bar charts, pictograms and tables	Pictograms [PM9.01]
		Tables 1 [PM9.02]
		Bar Charts 1 [PM9.03]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

YEAR 3

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
AUTUMN			
Week 1	Number and Place Value	Represent numbers to 100 Tens and ones using addition Hundreds Numbers to 1,000 Numbers to 1,000 on a place value grid activity	2-Digit: Recognising place value [PM1.34] 2-Digit: Representing numbers [PM1.35] 3-Digit: Recognising place value [PM1.05] 3-Digit: Representing numbers [PM1.06] Counting in multiples of 100 [PM1.04]
Week 2		100s, 10s and 1s (1) 100s, 10s and 1s (2) Number line to 100 Number line to 1,000 Find 1, 10, 100 more or less	Number lines to 100 [PM1.36] Number lines to 1000 [PM1.37] 2-Digit: Finding 10 more or 10 less [PM1.38] 3-Digit: Finding 10 more or 10 less [PM1.07] Finding 100 more or 100 less [PM1.08]
Week 3		Compare objects Compare numbers Ordering numbers Count in 50s	Comparing numbers with greater than and less than symbols $<>$ [PM1.09] Ordering numbers up to 1000 [PM1.10] Counting in multiples of 50 [PM1.03]
Week 4	Addition and Subtraction	Add and subtract multiples of 100 Add and subtract 1s Add and subtract 3-digit and 1-digit numbers - not crossing 10 Add a 2-digit and 1-digit number - crossing 10 Add 3-digit and 1-digit numbers - crossing 10	3-Digit: Adding and subtracting 100s [PM2.03] 2-Digit: Adding and subtracting 1s (not crossing 10) [PM2.33] 2-Digit: Adding 1-digit numbers (crossing 10) [PM2.35] 3-Digit: Adding and subtracting 1s [PM2.01]
Week 5		Subtract a 1-digit number from 2-digits - crossing 10 Subtract a 1-digit number from a 3-digit number - crossing 10 Add and subtract 3-digit and 2-digit numbers - not crossing 100 Add 3-digit and 2-digit numbers - crossing 100 Subtract a 2-digit number from a 3-digit number - crossing 100	2-Digit: Adding and subtracting 1s (not crossing 10) [PM2.33] 2-Digit: Adding 1-digit numbers (crossing 10) [PM2.35] 3-Digit: Adding and subtracting 10s [PM2.02] 3-Digit: Column addition (no exchanging) [PM2.04] 3-Digit: Column subtraction (no exchanging) [PM2.06]

Week 6	Addition and Subtraction	Add and subtract 100s Spot the pattern - making it explicit Add two 2-digit numbers - crossing 10 -add ones & add tens Subtract a 2-digit number from a 2-digit number - crossing 10 - subtract ones and subtract tens Mixed addition and subtraction problems	Adding and subtracting 100s [PM2.03] 2-Digit: Adding 2-digit numbers (no exchanging) [PM2.37] 2-Digit: Subtracting 2-digit numbers (no exchanging) [PM2.38] 2-Digit: Adding 2-digit numbers (with exchanging) [PM2.39] 2-Digit: Subtracting 2-digit numbers (with exchanging) [PM2.40]
Week 7		Add and subtract 2-digit & 3-digit numbers - not crossing 10 or 100 Add 2-digit and 3-digit numbers - crossing 10 or 100 Subtract a 2-digit number from a 3-digit number - crossing 10 or 100 Add two 3-digit numbers - not crossing 10 or 100 Add two 3-digit numbers - crossing 10 or 100	3-Digit: Column addition (with exchanging) [PM2.05] 3-Digit: Column subtraction (no exchanging) [PM2.06] Addition and subtraction practice 1 [PM2.08] Addition and subtraction word problems 1 [PM2.09]
Week 8		Subtract a 3-digit number from a 3-digit number - no exchange Subtract a 3-digit number from a 3-digit number - exchange Estimate answers to calculations Check answers	Rounding to the nearest 10 and 100 [PM2.10] Estimating using rounding [PM2.11] Checking answers using the inverse 1 [PM2.12]
Week 9	Multiplication and Division	Multiplication - equal groups Multiplication using the symbol Using arrays 2 times-table 5 times-table	Understanding multiplication [PM3.63] Counting in multiples of 2 [PM10.01] Multiplying by 2 [PM10.05] Counting in multiples of 5 [PM10.03] Multiplying by 5 [PM10.06]
Week 10		Make equal groups - sharing Make equal groups - grouping Divide by 2 Divide by 5 Divide by 10	Dividing by 2 [PM10.08] Dividing by 5 [PM10.09] Dividing by 10 [PM10.10]
Week 11		Multiply by 3 Divide by 3 The 3 times-table Multiply by 4 Divide by 4	Counting in multiples of 3 [PM10.02] Multiplying by 3 [PM3.01] Dividing by 3 [PM3.05] Counting in multiples of 4 [PM1.01] Multiplying by 4 [PM3.02] Dividing by 4 [PM3.06]
Week 12		The 4 times-table Multiply by 8 Divide by 8 The 8 times-table	Counting in multiples of 8 [PM1.02] Multiplying by 8 [PM3.03] Dividing by 8 [PM3.07]

SPRING			
Week 1	Multiplication and Division	Consolidate 2, 4 and 8 times tables Comparing statements Related calculations Multiply 2-digits by 1-digit - no exchange - activity Multiply 2-digits by 1-digit (1)	Comparing statements [PM3.64] Mixed multiplication [PM3.04] Multiplying using partitioning [PM3.10]
Week 2		Multiply 2-digits by 1-digit - exchange - activity Multiply 2-digits by 1-digit (2) Divide 2-digits by 1-digit (1) Divide 2-digits by 1-digit (2) Divide 100 into 2, 4, 5 and 10 equal parts - activity	Short multiplication 1 [PM3.12] Dividing using partitioning (no remainders) [PM3.60]
Week 3		Divide with remainders activity Divide 2-digits by 1-digit (3) Scaling How many ways?	2-Digit: Dividing using partitioning (with remainders) [PM3.61] 2-Digit: Dividing using partitioning (with remainders) [PM3.61] Scaling problems 1 [PM3.65]
Week 4	Money	Count money (pence) Count money (pounds) Pounds and pence Convert pounds and pence Add money	Counting money (pence) [PM6.11] Counting money (pounds) [PM6.12] Making amounts (pounds and pence) [PM6.15] Converting pounds and pence [PM6.13] Adding amounts of money [PM6.01] Adding amounts of money 2 [PM6.02]
Week 5		Subtract money Give change Make tally charts Draw pictograms (1-1)	Subtracting amounts of money [PM6.04] Finding change 1 (from £1) [PM6.14] Finding change 2 [PM6.03] Tally charts [PM9.16] Block diagrams [PM9.14] Pictograms [PM9.01]
Week 6	Statistics	Interpret pictograms (1-1) Draw bar charts - activity Bar charts Tables	Bar charts 1 [PM9.03] Tables 1 [PM9.02]
Week 7	Measurement	Measure length Measure length (m) Equivalent lengths (m and cm) Equivalent lengths (mm and cm) Compare lengths	Length [PM5.02]

Week 8	Measurement	Compare lengths Add lengths Subtract lengths What is perimeter? Activity Measure perimeter	Solving length problems [PM5.03] Perimeter by counting [PM5.08]
Week 9		Calculate perimeter Calculate perimeter Working with wholes and parts activity Recap - Make equal parts	Calculating the perimeter [PM5.09]
Week 10	Fractions	Recognise a half Find a half Recognise a quarter Find a quarter Recognise a third	Recognising and finding a half [PM4.37] Recognising and finding quarters [PM4.38] Recognising and finding thirds [PM4.39]
Week 11		Find a third Unit fractions Non-unit fractions Equivalence of a half and 2 quarters Count in fractions	Identifying fractions [PM4.01] Counting in fractions [PM4.40]
SUMMER			
Week 1	Fractions	Making the whole Tenths Count in tenths Fractions on a number line Fractions of a set of objects (1)	Tenths [PM4.02] Finding unit fractions of amounts [PM4.06]
Week 2		Fractions of a set of objects (2) Fractions of a set of objects (3) Equivalent fractions (1) Equivalent fractions (2) Equivalent fractions (3)	Finding non-unit fractions of amounts [PM4.07] Finding fractions of amounts [PM4.08] Equivalent fractions 1 [PM4.05]
Week 3		Compare fractions Order fractions Add fractions Subtraction fractions	Comparing and ordering fractions [PM4.03] Adding and subtracting fractions [PM4.04]

Week 4	Time	O'clock and half past Quarter past and quarter to Months and years Hours in a day Telling the time to 5 minutes	Telling the time in words [PM7.03] Units of time [PM7.01] Telling the time to the nearest 5 minutes [PM7.04] Telling the time to the nearest 5 minutes in words [PM7.05]
Week 5		Telling the time to the minute Using a.m. and p.m. 24-hour clock activity 24-hour clock Finding the duration	Telling the time to the nearest minute [PM7.06] Times of day [PM7.02] 12 hour and 24 hour clocks [PM7.09] Finding the duration [PM7.11]
Week 6		Comparing durations Start and end times Measuring time in seconds Problem solving with time	Start and end times [PM7.12]
Week 7	Geometry	Turns and angles Right angles in shapes Compare angles Draw accurately Horizontal and vertical	Angles in turns 1 [PM8.04] Identifying angles [PM8.05]
Week 8		Parallel and perpendicular Recognise and describe 2-D shapes Recognise and describe 3-D shapes Make 3-D shapes	Identifying lines [PM8.06] Describing 2D shapes [PM8.01] Describing 3D shapes [PM8.02] Nets of shapes [PM8.03]
Week 9	Measurement	Measure mass activity Compare mass Measure mass (1) Measure mass (2) Compare mass	Mass and weight [PM5.04]
Week 10		Add and subtract mass Measure capacity activity Compare volume Measure capacity (1) Measure capacity (2)	Solving mass problems [PM5.05] Volume and capacity [PM5.06]
Week 11		Compare capacity Add and subtract capacity Temperature activity Temperature	Solving volume and capacity problems [PM5.07]

Primary – Year 4 Mathematics

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	count in multiples of 6, 7, 9, 25 and 1,000	Counting in Multiples of 6 [PM1.12]
		Counting in Multiples of 7 [PM1.13]
		Counting in Multiples of 8 [PM1.02]
		Counting in Multiples of 9 [PM1.14]
		Counting in Multiples of 25 [PM1.15]
		Counting in Multiples of 1000 [PM1.16]
	find 1,000 more or less than a given number	Finding 1000 More or 1000 Less [PM1.33]
	count backwards through 0 to include negative numbers	Negative Numbers 1 [PM1.18]
		Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]
	recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)	Place Value in 4 Digit Numbers [PM1.20]
Number - Addition and Subtraction	order and compare numbers beyond 1,000	Comparing and Ordering Numbers [PM1.22]
	round any number to the nearest 10, 100 or 1,000	Rounding to the Nearest 10, 100 and 1000 [PM1.23]
	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value	Roman Numerals (up to 100) [PM1.24]
	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Column Addition (No Exchanging) [PM2.13]
		Column Addition (With Exchanging) [PM2.14]
		Column Subtraction (No Exchanging) [PM2.15]
		Column Subtraction (With Exchanging) [PM2.16]

		Addition and Subtraction Practice 2 [PM2.17]
		Addition and Subtraction Word Problems 2 [PM2.18]
	estimate and use inverse operations to check answers to a calculation	Checking Answers Using the Inverse 2 [PM2.19]
		Estimating to Check Answers [PM2.20]
	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Solving Two-Step Problems [PM2.21]
Number - Multiplication and Division	recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers	Multiplying by 2 [PM10.05]
		Multiplying by 3 [PM3.01]
		Multiplying by 4 [PM3.02]
		Multiplying by 5 [PM10.06]
		Multiplying by 6 [PM3.17]
		Multiplying by 7 [PM3.18]
		Multiplying by 8 [PM3.03]
		Multiplying by 9 [PM3.19]
		Multiplying by 10 [PM10.07]
		Multiplying by 11 [PM3.20]
		Multiplying by 12 [PM3.21]
		Mixed Multiplication (Within the Times Tables) [PM3.22]
		Dividing by 2 [PM10.08]
		Dividing by 3 [PM3.05]
		Dividing by 4 [PM3.06]
		Dividing by 5 [PM10.09]
		Dividing by 6 [PM3.23]
		Dividing by 7 [PM3.24]
		Dividing by 8 [PM3.07]

		Dividing by 9 [PM3.25]
		Dividing by 10 [PM10.10]
		Dividing by 11 [PM3.26]
		Dividing by 12 [PM3.27]
		Mixed Division (Within the Times Tables) [PM3.28]
		Multiplying 3 Numbers Together [PM3.29]
	recognise and use factor pairs and commutativity in mental calculations	Factor Pairs [PM3.30]
	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	Multiplying Multiples of 10 [PM3.09]
		Multiplying Using Partitioning [PM3.10]
		2/3-Digit: Multiplying by 1-Digit [PM3.31]
	solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Scaling Problems 2 [PM3.32]
		Correspondence Problems 1 [PM3.33]
		Correspondence Problems 2 [PM3.34]
Number - Fractions (Including Decimals)	recognise and show, using diagrams, families of common equivalent fractions	Equivalent Fractions 1 [PM4.05]
	count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10	Hundredths [PM4.09]
	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	Finding Unit Fractions of Amounts [PM4.06]
		Finding Non-Unit Fractions of Amounts [PM4.07]
		Finding Fractions of Amounts [PM4.08]
	add and subtract fractions with the same denominator	Adding and Subtracting Fractions [PM4.04]
	recognise and write decimal equivalents of any number of tenths or hundreds	Decimal Equivalents (Tenths/Hundredths) [PM4.10]
	recognise and write decimal equivalents to quarter, half, three quarters	Decimal Equivalents (Quarter, Half and Three Quarters) [PM4.11]
	find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Dividing and Multiplying by 10 and 100 (Including Decimals) [PM4.12]

	round decimals with 1 decimal place to the nearest whole number	Rounding Decimals to the Nearest Whole Number [PM4.13]
	compare numbers with the same number of decimal places up to two decimal places	Comparing Decimals [PM4.14]
	solve simple measure and money problems involving fractions and decimals to two decimal places.	Included in Nuggets Above
Measurement	convert between different units of measure [for example, kilometre to metre; hour to minute]	Converting mm and cm [PM5.11]
		Converting cm and m [PM5.12]
		Converting m and km [PM5.13]
		Converting Length [PM5.14]
		Converting Seconds, Minutes and Hours [PM7.14]
	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Calculating the Perimeter [PM5.19]
	find the area of rectilinear shapes by counting squares	Area by Counting [PM5.20]
		Area [PM5.21]
	estimate, compare and calculate different measures, including money in pounds and pence	Mass and Weight [PM5.04]
		Measuring Mass [PM5.15]
		Converting Mass [PM5.16]
		Solving Mass Problems [PM5.05]
		Volume and Capacity [PM5.06]
		Measuring Volume [PM5.17]
		Converting Volume [PM5.18]
		Solving Volume and Capacity Problems [PM5.07]
		Pounds and Pence [PM6.06]

		Adding Amounts of Money [PM6.01]
		Adding Amounts of Money 2 [PM6.02]
		Comparing Amounts of Money [PM6.07]
		Estimating Amounts of Money [PM6.08]
		Finding Change [PM6.03]
		Subtracting Amounts of Money [PM6.04]
		Solving Money Problems 1 [PM6.09]
		Solving Money Problems 2 [PM6.10]
	read, write and convert time between analogue and digital 12- and 24-hour clocks	12 Hour and 24 Hour Clocks [PM7.09]
Geometry - Properties of Shapes	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Converting Seconds, Minutes and Hours [PM7.14]
		Converting Weeks, Days, Years and Months [PM7.13]
	identify acute and obtuse angles and compare and order angles up to two right angles by size	Triangles [PM8.11]
	Identify lines of symmetry in 2-D shapes presented in different orientations	Quadrilaterals [PM8.12]
	complete a simple symmetric figure with respect to a specific line of symmetry.	Sorting Shapes [PM8.13]
Geometry - Position and Direction	describe positions on a 2-D grid as coordinates in the first quadrant	Identifying Angles [PM8.05]
	describe movements between positions as translations of a given unit to the left/right and up/down	Lines of Symmetry [PM8.07]
	plot specified points and draw sides to complete a given polygon.	
Statistics	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. solve comparison, sum and difference problems using information	Describing Position [PM8.14]
		Translation [PM8.16]
		Plotting Points [PM8.15]
		Tables 1 [PM9.02]
		Pictograms [PM9.01]

	presented in bar charts, pictograms, tables and other graphs.	Bar Charts 1 [PM9.03]
		Line Graphs [PM9.04]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

YEAR 4

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
AUTUMN			
Week 1	Number and Place value	Numbers to 1,000 100s, 10s and 1s Number line to 1,000 Round to the nearest 10 Round to the nearest 100	3-Digit: Recognising place value [PM1.05] Number lines to 1000 [PM1.37] 3-Digit: Rounding to the nearest 10 and 100 [PM2.10]
Week 2		Count in 1000s Represent numbers to 10,000 activity 1000s, 100s, 10s and 1s Partitioning The number line to 10,000	Place value in 4 digit numbers [PM1.20] Counting in multiples of 1000 [PM1.16]
Week 3		Find 1, 10, 100 more or less 1,000 more or less Compare 4-digit numbers Order numbers Round to the nearest 1,000	Finding 10 more or 10 less [PM1.07] Finding 100 more or 100 less [PM1.08] Finding 1000 more or less [PM1.17] Comparing and ordering numbers [PM1.22] Rounding to the nearest 10, 100 and 1000 [PM1.23]
Week 4		Count in 25s Introducing negative numbers activity Negative numbers Roman numerals	Counting in multiples of 25 [PM1.15] Negative numbers 1 [PM1.18] Roman numerals (up to 20) [PM7.07] Roman numerals (up to 100) [PM1.24]
Week 5	Addition and Subtraction	Add and subtract 1s, 10s, 100s and 1,000s Add two 3-digit numbers - not crossing 10 or 100 Add two 4-digit numbers - no exchange Add two 3-digit numbers - crossing 10 or 100 Add two 4-digit numbers - one exchange	3-Digit: Adding and subtracting 1s [PM2.01] 3-Digit: Adding and subtracting 10s [PM2.02] 3-Digit: Adding and subtracting 100s [PM2.03] 3-Digit: Column addition (no exchanging) [PM2.04] 4-Digit: Column addition (no exchanging) [PM2.13] 3-Digit: Column addition (with exchanging) [PM2.05]

Week 6	Addition and Subtraction	Add two 4-digit numbers - more than one exchange Subtract a 3-digit number from a 3-digit number - no exchange Subtract two 4-digit numbers - no exchange Subtract a 3-digit number from a 3-digit number - exchange Subtract two 4-digit numbers - one exchange	4-Digit: Column addition (with exchanging) [PM2.14] 3-Digit: Column subtraction (no exchanging) [PM2.06] 4-Digit: Column subtraction (no exchanging) [PM2.15] 3-Digit: Column subtraction (with exchanging) [PM2.07]
Week 7		Subtract two 4-digit numbers - more than one exchange Efficient Subtraction Estimate answers Checking strategies	4-Digit: Column subtraction (with exchanging) [PM2.16] Estimating to check answers [PM2.20] Checking answers using the inverse 2 [PM2.19]
Week 8	Measurement	Equivalent lengths - m and cm Equivalent lengths - mm and cm Kilometres Add lengths Subtract lengths	Converting cm and m [PM5.12] Converting mm and cm [PM5.11] Converting m and km [PM5.13] Solving length problems [PM5.03]
Week 9		Measure perimeter Perimeter on a grid Perimeter of a rectangle Perimeter of rectilinear shapes	Perimeter by counting [PM5.08] Calculating the perimeter [PM5.09]
Week 10	Multiplication and Division	Multiply by 10 Multiply by 100 Divide by 10 Divide by 100 Multiply by 1 and 0	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12]
Week 11		Divide by 1 and itself Multiply and divide by 3 The 3 times-table Multiply and divide by 6 6 times-table and division facts	Counting in multiples of 3 [PM10.02] Multiplying by 3 [PM3.01] Dividing by 3 [PM3.05] Counting in multiples of 6 [PM1.12] Multiplying by 6 [PM3.17] Dividing by 6 [PM3.23]
Week 12		Multiply and divide by 9 9 times-table and division facts Multiply and divide by 7 7 times-table and division facts	Counting in multiples of 9 [PM1.14] Multiplying by 9 [PM3.19] Dividing by 9 [PM3.25] Counting in multiples of 7 [PM1.13] Multiplying by 7 [PM3.18] Dividing by 7 [PM3.24]

SPRING			
Week 1	Multiplication and Division	11 and 12 times-table Multiply 3 numbers Factor pairs Efficient multiplication Written methods	Multiplying by 11 [PM3.20] Multiplying by 12 [PM3.21] Dividing by 11 [PM3.26] Dividing by 12 [PM3.27] Multiplying 3 numbers together [PM3.29] Factor pairs [PM3.30]
Week 2		Multiply 2-digits by 1-digit Multiply 3-digits by 1-digit Divide 2-digits by 1-digit Divide 2-digits by 1-digit (1)	Multiplying using partitioning [PM3.10] 2-Digit: Multiplying by 1-digit [PM3.12] 2/3-Digit: Multiplying by 1-digit [PM3.31] 2-Digit: Dividing using partitioning (no remainders) [PM3.60]
Week 3		Divide 2-digits by 1-digit Divide 2-digits by 1-digit (2) Divide 3-digits by 1-digit Correspondence problems	2-Digit: Dividing using partitioning (with remainders) [PM3.61] 2/3-Digit: Dividing using partitioning (no remainders) [PM3.35] 2/3-Digit: Dividing using partitioning (with remainders) [PM3.36] 2/3-Digit: Dividing using written methods [PM3.37] Correspondence problems 1 [PM3.33] Correspondence problems 2 [PM3.34]
Week 4	Area	What is area? Counting squares Making shapes Comparing area	Area by counting [PM5.20] Area [PM5.21]
Week 5	Fractions	Unit and non-unit fractions What is a fraction? Tenths Count in tenths Equivalent fractions (1)	Identifying fractions [PM4.01] Tenths [PM4.02]
Week 6		Equivalent fractions (2) Equivalent fractions (1) Equivalent fractions (2) Fractions greater than 1 Count in fractions	Equivalent fractions 1 [PM4.05] Counting in fractions [PM4.40]
Week 7		Add fractions Add 2 or more fractions Subtract fractions Subtract 2 fractions Subtract from whole amounts	Adding and subtracting fractions [PM4.04]

Week 8	Fractions	Fractions of a set of objects (1) Fractions of a set of objects (2) Calculate fractions of a quantity Problem solving - calculate quantities	Finding unit fractions of amounts [PM4.06] Finding non-unit fractions of amounts [PM4.07] Finding fractions of amounts [PM4.08]
Week 9	Decimals	Tenths and hundredths activity Recognise tenths and hundredths Tenths as decimals Tenths on a place value grid Tenths on a number line	Tenths [PM4.02] Hundredths [PM4.09] 2dp: Recognising place value in decimals [PM1.21]
Week 10		Divide 1-digit by 10 Divide 2-digits by 10 Hundredths Hundredths as decimals Hundredths on a place value grid	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12] Hundredths [PM4.09] Recognising place value in decimals [PM1.21]
Week 11		Divide 1 or 2-digits by 100	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12]
SUMMER			
Week 1	Fractions and Decimals	Bonds to 10 and 100 Make a whole Write decimals activity Write decimals activity Compare decimals	Number bonds to 100 [PM2.31] 2dp: Decimal complements to 1 [PM4.37] Recognising place value in decimals [PM1.21] Comparing decimals [PM4.14]
Week 2		Order decimals Round decimals activity Round decimals Halves and quarters	Rounding decimals to the nearest whole number [PM4.13] Decimal equivalents (quarter, half and three quarters) [PM4.11]
Week 3	Money	Pounds and pence Ordering money Estimating money Convert pounds and pence Add money	Pounds and pence [PM6.06] Comparing amounts of money [PM6.07] Estimating amounts of money [PM6.08] Adding amounts of money [PM6.01]
Week 4		Subtract money Find change Working with money activity Four operations	Subtracting amounts of money [PM6.04] Finding change [PM6.03] Solving money problems 1 [PM6.09] Solving money problems 2 [PM6.10]

Week 5	Time	Telling the time to 5 minutes Telling the time to the minute Using a.m. and p.m. 24-hour clock Hours, minutes and seconds	Telling the time to the nearest 5 minutes [PM7.04] Telling the time to the nearest minute [PM7.06] 12 hour and 24 hour clocks [PM7.09] Converting seconds, minutes and hours [PM7.14]
Week 6		Years, months, weeks and days Analogue to digital - activity Analogue to digital - 12 hour Analogue to digital - 24 hour	Converting weeks, days, years and months [PM7.13] 12 hour and 24 hour clocks [PM7.09]
Week 7	Statistics	Interpret charts Comparison, sum and difference Introducing line graphs Line graphs	Pictograms [PM9.01] Bar charts 1 [PM9.03] Tables 1 [PM9.02] Line graphs 1 [PM9.04]
Week 8	Geometry	Turns and angles Right angles in shapes Compare angles Identify angles Compare and order angles	Angles in turns 1 [PM8.04] Identifying angles [PM8.05]
Week 9		Recognise and describe 2-D shapes Triangles activity Triangles Quadrilaterals activity Quadrilaterals	Describing 2D shapes [PM8.01] Triangles [PM8.11] Quadrilaterals [PM8.12]
Week 10		Symmetry activity Horizontal and vertical Lines of symmetry Complete a symmetric figure	Identifying lines [PM8.06] Lines of symmetry [PM8.07]
Week 11	Position and Direction	Describe position Draw on a grid Move on a grid Describe movement on a grid	Describing position [PM8.14] Plotting points [PM8.15] Translation [PM8.16]

Primary – Year 5 Mathematics

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit	Place Value up to 1,000,000 [PM1.25]
		Comparing and Ordering Numbers to 1,000,000 [PM1.26]
	count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	Counting Forwards and Backwards in Powers of 10 [PM1.27]
	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	Negative Numbers 1 [PM1.18]
		Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]
	round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000	Rounding to the Nearest 10, 100 and 1000 [PM1.23]
		Rounding to the Nearest 10,000 and 100,000 [PM1.28]
	solve number problems and practical problems that involve all of the above	Included in Nuggets Above
	read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	Roman Numerals (up to 20) [PM7.07]
		Roman Numerals (up to 100) [PM1.24]
		Roman Numerals (up to 1000) [PM1.29]
		Roman Numerals (Beyond 1000) [PM1.30]
Addition and Subtraction	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	4+ Digit: Column Addition [PM2.22]
		4+ Digit: Column Subtraction [PM2.23]
	add and subtract numbers mentally with increasingly large numbers	Mental Strategies for Addition 1 [PM2.24]
		Mental Strategies for Addition 2 [PM2.25]
		Mental Strategies for Subtraction 1 [PM2.26]
		Mental Strategies for Subtraction 2 [PM2.27]

	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Estimating to Check Answers [PM2.20]
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solving Two-Step Problems [PM2.21]
Multiplication and Division	identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers	Factor Pairs [PM3.30]
		Common Factors [PM3.40]
	know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Prime Numbers [PM3.41] Prime Factors [PM3.42]
	establish whether a number up to 100 is prime and recall prime numbers up to 19	
	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	3/4-Digit: Multiplying by 1-Digit [PM3.50]
		2-Digit: Multiplying by 2-Digits [PM3.51]
		3/4-Digit: Multiplying by 2-Digits [PM3.52]
	multiply and divide numbers mentally, drawing upon known facts	Mental Strategies for Multiplication 1 [PM3.47]
		Mental Strategies for Multiplication 2 [PM3.48]
		Mental Strategies for Division [PM3.49]
	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (without Remainders) [PM3.53]
		3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (with Remainders) [PM3.54]
	multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000	Multiplying by 10, 100 and 1000 (Involving Decimals up to 3 d.p.) [PM3.45]
		Dividing by 10, 100 and 1000 (Involving Decimals Up to 3 d.p.) [PM3.46]
	recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	Square Numbers [PM3.43]
		Cube Numbers [PM3.44]
	solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	Included in Nuggets Above

	solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Understanding the Equals Sign [PM11.01]
		Solving Multistep Problems 1 (with Multiplication) [PM11.02]
		Solving Multistep Problems 2 (with Division) [PM11.03]
	solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Scaling Problems [PM3.32]
		Multistep Scaling Problems [PM11.04]
Fractions (Including Decimals and Percentages)	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Equivalent Fractions 2 [PM4.15]
	compare and order fractions whose denominators are all multiples of the same number	Comparing Proper Fractions 1 [PM4.16]
		Comparing and Ordering Improper Fractions and Mixed Numbers [PM4.18]
	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1\frac{1}{5}$]	Mixed Numbers and Improper Fractions [PM4.17]
	add and subtract fractions with the same denominator, and denominators that are multiples of the same number	Adding and Subtracting Fractions [PM4.04]
		Adding and Subtracting Fractions with Different Denominators [PM4.27]
		Adding and Subtracting Mixed Numbers 1 [PM4.29]
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Multiplying Fractions by Whole Numbers [PM4.28]
		Multiplying Mixed Numbers by Whole Numbers [PM4.30]
		Fractions as Operators [PM4.31]
	read and write decimal numbers as fractions [for example, $0.71 = 71/100$]	Decimal Equivalents (Quarter, Half and Three Quarters) [PM4.11]
		Decimal Equivalents (Tenths/Hundredths) [PM4.10]
	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Thousandths [PM12.01]
	round decimals with 2 decimal places to the nearest whole number and to 1 decimal place	Rounding Decimals to the Nearest Whole Number [PM4.13]
		Rounding Decimals [PM12.03]
	read, write, order and compare numbers with up to 3 decimal places	3dp: Recognising Place Value in Decimals. [PM12.02]

	solve problems involving number up to 3 decimal places	Comparing Decimals [PM4.14]
		Adding and Subtracting Decimals (within 1) [PM12.14]
		3dp: Decimal Complements to 1 [PM12.15]
		Adding and Subtracting Decimals [PM12.04]
	recognise the percent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction	Introduction to Percentages [PM12.05]
	solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$ and those fractions with a denominator of a multiple of 10 or 25	Fractions, Decimals and Percentages 1 [PM12.06]
		Finding Percentages 1 [PM12.07]
		Finding Percentages 2 [PM12.08]
Measurement	convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	Converting mm and cm [PM5.11]
		Converting cm and m [PM5.12]
		Converting m and km [PM5.13]
		Converting Length [PM5.14]
		Converting Mass [PM5.16]
		Converting Volume [PM5.18]
		Solving Length Problems with Conversion [PM5.23]
		Solving Mass Problems with Conversion [PM5.25]
		Solving Volume and Capacity Problems with Conversion [PM5.27]
	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Imperial Units of Length [PM5.22]
		Imperial Units of Mass [PM5.24]
		Imperial Units of Volume and Capacity [PM5.26]
	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Calculating the Perimeter 2 [PM13.01]
	calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm ²) and square metres (m ²), and estimate the area of irregular shapes	Area of Rectangles [PM13.02]
		Area of Compound Shapes [PM13.03]

		Estimating Area [PM13.04]
	estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water]	Volume of Shapes 1 [PM13.06]
	solve problems involving converting between units of time	Converting Weeks, Days, Years and Months [PM7.13]
		Converting Seconds, Minutes and Hours [PM7.14]
		Converting Units of Time [PM7.15]
	use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Included in Nuggets Above
Geometry – Properties of Shapes	identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Views of 3D Shapes [PM14.03]
	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Identifying Angles 2 [PM14.05]
		Measuring Angles [PM14.08]
		Estimating Angles [PM14.07]
	draw given angles, and measure them in degrees (°)	Drawing Angles [PM14.09]
	identify angles at a point and 1 whole turn (total 360°)	Angles Around a Point [PM14.12]
	identify angles at a point on a straight line and half a turn (total 180°)	Angles on a Straight Line [PM14.11]
	identify other multiples of 90°	Angles in Turns 2 [PM14.04]
	identify use the properties of rectangles to deduce related facts and find missing lengths and angles	Lengths of Right-Angled Shapes [PM14.02]
	identify distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Regular and Irregular Polygons [PM14.01]
	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	Translation 1 [PM8.16]
Geometry – Position and Direction		Reflection 2 [PM15.01]

Statistics	solve comparison, sum and difference problems using information presented in a line graph	Bar Charts 2 [PM9.13]
	complete, read and interpret information in tables, including timetables	Line Graphs 2 [PM9.08]
		Tables 2 [PM9.05]
		Two-Way Tables [PM9.06]
		Timetables [PM9.07]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

YEAR 5

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
AUTUMN			
Week 1	Number and Place value	1000s, 100s, 10s and 1s Numbers to 10,000 Rounding to the nearest 10 Rounding to the nearest 100 Rounding to 10, 100 and 1,000	Place value in 4 digit numbers [PM1.20] Rounding to the nearest 10, 100 and 1000 [PM1.23]
Week 2		Numbers to 100,000 Compare and order numbers to 100,000 Round numbers within 100,000 Numbers to a million Counting in 10s, 100s, 1,000s, 10,000s and 100,000s	Place value up to 1,000,000 [PM1.25] Comparing and ordering numbers [PM1.22] Rounding to the nearest 10,000 and 100,000 [PM1.28] Counting forwards and backwards in powers of 10 [PM1.27]
Week 3		Compare and order numbers to one million Round numbers to one million Negative Numbers Roman numerals	Comparing and ordering numbers to 1,000,000 [PM1.26] Rounding to the nearest 10,000 and 100,000 [PM1.28] Negative numbers 2 (including addition and subtraction) [PM1.19] Roman numerals (beyond 1000) [PM1.30]
Week 4	Addition and Subtraction	Add two 4-digit numbers - one exchange Add two 4-digit numbers - more than one exchange Add whole numbers with more than 4 digits Subtract two 4-digit numbers - one exchange Subtract two 4-digit numbers - more than one exchange	4-Digit: Column addition (with exchanging) [PM2.14] 4+ Digit: Column addition [PM2.22] 4+ Digit: Column subtraction [PM2.23]
Week 5		Subtract whole numbers with more than 4-digits Round to estimate and approximate Inverse operations (addition and subtraction) Multi-step addition and subtraction problems	4-Digit: Column subtraction (with exchanging) [PM2.16] Estimating to check answers [PM2.20] Checking answers using the inverse 2 [PM2.19] Solving two-step problems [PM2.21]

Week 6	Statistics	Interpret charts Comparison, sum and difference Introduce line graphs Read and interpret line graphs Draw line graphs	Bar charts 2 [PM9.13] Line graphs 1 [PM9.04]
Week 7		Use line graphs to solve problems Read and interpret tables Two-way tables Timetables	Line graphs 2 [PM9.08] Tables 2 [PM9.05] Two-way tables [PM9.06] Timetables [PM9.07]
Week 8	Multiplication and Division	Multiples Factors Common factors Prime numbers activity Prime numbers	Factor pairs [PM3.30] Common factors [PM3.40] Prime numbers [PM3.41]
Week 9		Square numbers Cube numbers Multiply by 10 Multiply by 100 Multiply by 10, 100 and 1,000	Square numbers [PM3.43] Cube numbers [PM3.44] Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45]
Week 10		Divide by 10 Divide by 100 Divide by 10, 100 and 1,000 Multiples of 10, 100 and 1,000	Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46] Mental strategies for multiplication 1 [PM3.47]
Week 11	Area and perimeter	Measure perimeter Perimeter on a grid Perimeter of rectangles Perimeter of rectilinear shapes Calculate perimeter	Perimeter by counting [PM5.08] Calculating the perimeter [PM5.09] Calculating the perimeter 2 [PM13.01]
Week 12		Counting squares Area of rectangles Area of compound shapes Area of irregular shapes	Area by counting [PM5.20] Area of rectangles [PM13.02] Area of compound shapes [PM13.03]

SPRING			
Week 1	Multiplication and Division	Multiply 2-digits by 1-digit Multiply 3-digits by 1-digit Multiply 4-digits by 1-digit Area model activity Multiply 2-digits (area model)	2/3-Digit: Multiplying by 1-digit [PM3.31] 3/4-Digit: Multiplying by 1-digit [PM3.50] 2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52]
Week 2		Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits Multiply 4-digits by 2-digits (basic practice) Multiply 4-digits by 2-digits Divide 2-digits by 1-digit (1)	2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52] 2/3-Digit: Dividing using partitioning (no remainders) [PM3.35]
Week 3		Divide 2-digits by 1-digit (2) Divide 3-digits by 1-digit Divide 4-digits by 1-digit Divide with remainders	2/3-Digit: Dividing using partitioning (with remainders) [PM3.36] 2/3-Digit: Dividing using written methods [PM3.37] 3/4-Digit: Dividing by 1-digit numbers using short division (without remainders) [PM3.53] 3/4-Digit: Dividing by 1-digit numbers using short division (with remainders) [PM3.54]
Week 4	Fractions	What is a fraction? Equivalent fractions Equivalent fractions Fractions greater than 1 Improper fractions to mixed numbers	Identifying fractions [PM4.01] Equivalent fractions 1 [PM4.05] Equivalent fractions 2 [PM4.15] Mixed numbers and improper fractions [PM4.17]
Week 5		Mixed numbers to improper fractions Number sequences Compare fractions less than 1 Order fractions less than 1 Compare fractions greater than 1	Mixed numbers and improper fractions [PM4.17] Comparing and ordering fractions [PM4.03] Comparing proper fractions 1 [PM4.16] Comparing and ordering improper fractions and mixed numbers [PM4.18]
Week 6		Order fractions greater than 1 Add and subtract fractions Add fractions within 1 activity Add 3 or more fractions	Comparing and ordering improper fractions and mixed numbers [PM4.18] Adding and subtracting fractions [PM4.04]
Week 7		Add fractions Add mixed numbers activity Add mixed numbers Subtract fractions Subtract mixed numbers	Adding and subtracting fractions with different denominators [PM4.27] Adding and subtracting mixed numbers 1 [PM4.29]

Week 8	Fractions	Subtraction - 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	Multiplying fractions by whole numbers [PM4.28] Multiplying mixed numbers by whole numbers [PM4.30]
Week 9		Calculate fractions of a quantity Fraction of an amount Using fractions as operators Fraction problem solving	Finding fractions of amounts [PM4.08] Fractions as operators [PM4.31]
Week 10	Fractions, Decimals and Percentages	Decimals up to 2 d.p. Decimals as fractions (1) Decimals as fractions (2) Understand thousandths Thousandths as decimals	2dp: Recognising place value in decimals [PM1.21] 3dp: Recognising place value in decimals [PM12.02] Decimal equivalents (tenths/hundredths) [PM4.10] Thousandths [PM12.01]
Week 11		Rounding decimals Order and compare decimals Understand percentages Percentages as fractions and decimals Equivalent FDP	Rounding decimals [PM12.03] Comparing decimals [PM4.14] Introduction to percentages [PM12.05] Fractions, decimals and percentages 1 [PM12.06]
SUMMER			
Week 1	Decimals	Consolidate decimals from the Spring Term	Thousandths [PM12.01] Rounding decimals [PM12.03] Comparing decimals [PM4.14]
Week 2		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	Adding and subtracting decimals (within 1) [PM12.14] 3dp: Decimal complements to 1 [PM12.15]
Week 3		Subtracting decimals with the same number of decimal places Adding and subtracting decimals with the same number of decimal places problem solving Adding decimals with a different number of decimal places Subtracting decimals with a different number of decimal places Adding and subtracting decimals with a different number of decimal places problem solving	Adding and subtracting decimals [PM12.04]

Week 4	Decimals	Adding and subtracting wholes and decimals Decimal sequences Multiplying decimals by 10, 100 and 1,000 Dividing decimals by 10, 100 and 1,000	Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45] Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46]
Week 5	Geometry	Identify angles Compare and order angles Measuring angles in degrees Measuring with a protractor (1) Measuring with a protractor (2)	Identifying angles 2 [PM14.05] Estimating angles [PM14.07] Measuring angles [PM14.08]
Week 6		Drawing lines and angles accurately activity Drawing lines and angles accurately Calculating angles on a straight line Calculating angles around a point Triangles	Drawing angles [PM14.09] Angles on a straight line [PM14.11] Angles around a point [PM14.12] Triangles [PM8.11]
Week 7		Quadrilaterals Calculating lengths and angles in shapes Regular and irregular polygons Reasoning about 3-D shapes	Quadrilaterals [PM8.12] Regular and irregular polygons [PM14.01] Views of 3D shapes [PM14.03]
Week 8	Position and Direction	Describe position Draw on a grid Position in the first quadrant Translation Translation with coordinates	Describing position [PM8.14] Plotting points [PM8.15] Translation 1 [PM8.16]
Week 9		Lines of symmetry Complete a symmetric figure Reflection Reflection with coordinates	Lines of symmetry [PM8.07] Reflection 1 [PM15.01]
Week 10	Measurement	Kilometres Kilograms and kilometres Millimetres and millilitres Metric units activity Metric units	Solving length problems with conversion [PM5.23] Solving mass problems with conversion [PM5.25] Solving mass problems with conversion [PM5.25]

Week 11	Measurement	Imperial units activity Imperial units Converting units of time Timetables	Imperial units of length [PM5.22] Imperial units of mass [PM5.24] Imperial units of volume and capacity [PM5.26] Converting units of time [PM7.15] Timetables [PM9.07]
Week 12		What is volume? Compare volume Estimate volume Estimate capacity	Volume of shapes 1 [PM13.06] Estimating volume and capacity [PM5.28]

Primary – Year 6 Mathematics

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	read, write, order and compare numbers up to 10,000,000 and determine the value of each digit	Place Value up to 10,000,000 [PM1.31]
	round any whole number to a required degree of accuracy	Rounding to the Nearest 10, 100 and 1000 [PM1.23]
		Rounding to the Nearest 10,000 and 100,000 [PM1.28]
	use negative numbers in context, and calculate intervals across 0	Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]
		Negative Numbers 3 [PM1.32]
	solve number and practical problems that involve all of the above	Included in Nuggets Above
Addition, Subtraction, Multiplication and Division	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	Multiplying 2 Digit Numbers by 2 Digit Numbers [PM3.51]
		3/4-Digit: Multiplying by 2-Digits [PM3.52]
	divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	Long Division 1 (Dividing by a Single Digit Number) [PM3.57]
		Long Division 2 (Dividing by a 2 Digit Number) [PM3.58]
	divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (without Remainders) [PM3.53]
		3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (with Remainders) [PM3.54]
		Dividing by 2 Digit Numbers Using Short Division [PM3.56]
	perform mental calculations, including with mixed operations and large numbers	Mental Strategies for Addition 1 [PM2.24]
		Mental Strategies for Addition 2 [PM2.25]
		Mental Strategies for Subtraction 1 [PM2.26]

		Mental Strategies for Subtraction 2 [PM2.27]
		Mental Strategies for Multiplication 1 [PM3.47]
		Mental Strategies for Multiplication 2 [PM3.48]
		Mental Strategies for Division [PM3.49]
	identify common factors, common multiples and prime numbers	Common Factors [PM3.40]
		Prime Numbers [PM3.41]
		Common Multiples [PM3.55]
	use their knowledge of the order of operations to carry out calculations involving the 4 operations	Operations of Equal Priority [PM11.05]
		BIDMAS: 4 Operations and Brackets [PM11.06]
		BIDMAS: Indices [PM11.07]
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Multi Step Addition and Subtraction Problems [PM2.28]
		Solving Multistep Problems 1 (with Multiplication) [PM11.02]
		Solving Multistep Problems 2 (with Division) [PM11.03]
	solve problems involving addition, subtraction, multiplication and division	4+ Digit: Column Addition [PM2.22]
		4+ Digit: Column Subtraction [PM2.23]
		Included in Nuggets Above
	use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Estimating to Check Answers [PM2.20]
Fractions (Including Decimals and Percentages)	use common factors to simplify fractions; use common multiples to express fractions in the same denomination	Simplifying Fractions [PM4.23]
	compare and order fractions, including fractions >1	Comparing Proper Fractions 1 [PM4.16]
		Comparing Proper Fractions 2 [PM4.21]
		Comparing and Ordering Improper Fractions and Mixed Numbers [PM4.18]
	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	Adding and Subtracting Fractions with Different Denominators [PM4.27]
		Adding and Subtracting Fractions with Different Denominators 2 [PM4.32]
		Adding and Subtracting Mixed Numbers 1 [PM4.29]

		Adding and Subtracting Mixed Numbers 2 [PM4.33]
	multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]	Multiplying Simple Pairs of Proper Fractions [PM4.24]
	divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]	Dividing Fractions by Whole Numbers [PM4.25]
	associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]	Fractions to Decimals Using Division [PM12.12]
	identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places	Recognising Place Value in Decimals up to 3 d.p. [PM12.02]
		Multiplying by 10, 100 and 1000 (Involving Decimals up to 3 d.p.) [PM3.45]
		Dividing by 10, 100 and 1000 (Involving Decimals Up to 3 d.p.) [PM3.46]
	multiply one-digit numbers with up to 2 decimal places by whole numbers	Multiplying Decimals [PM12.09]
	use written division methods in cases where the answer has up to 2 decimal places	Dividing Decimals [PM12.10]
	solve problems which require answers to be rounded to specified degrees of accuracy	Included in Nuggets Above
	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	Fractions, Decimals and Percentages 2 [PM12.13]
Ratio and Proportion	solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts	Introduction to Ratio [PM17.01]
		Simplifying Ratios [PM17.02]
		Proportion [PM17.06]
	solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison	Finding percentages of amounts 1
		Finding percentages of amounts 2
		Finding percentages of amounts 3
		Finding percentages of amounts 4
	solve problems involving similar shapes where the scale factor is known or can be found	Similar Shapes [PM17.05]
	solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	Ratios and Fractions [PM17.03]

		Sharing into a Given Ratio [PM17.04]
Algebra	use simple formulae	Function Machines [PM18.02]
		Formulae [PM18.07]
	generate and describe linear number sequences	Sequences [PM18.01]
	express missing number problems algebraically	Forming Expressions 1 [PM18.03]
		Forming Expressions 2 [PM18.04]
		Forming Expressions 3 [PM18.05]
		Substitution [PM18.06]
		Solving 1 Step Equations [PM18.08]
		Solving 2 Step Equations [PM18.09]
	find pairs of numbers that satisfy an equation with 2 unknowns	Satisfying Equations with 2 Variables [PM18.10]
	enumerate possibilities of combinations of 2 variables	Enumerating Possibilities [PM18.11]
Measurements	solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate	Converting Length [PM5.14]
		Converting Mass [PM5.16]
		Converting Volume [PM5.18]
	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places	Converting Metric Measures [PM5.29]
	convert between miles and kilometres	Converting Miles and Kilometres [PM5.30]
	recognise that shapes with the same areas can have different perimeters and vice versa	Area and Perimeter [PM13.05]
	recognise when it is possible to use formulae for area and volume of shapes	Area of Rectangles [PM13.02]
		Volume of Shapes 2 [PM13.10]
	calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]	Area of Parallelograms [PM13.07]
		Area of Right-Angled Triangles [PM13.08]
		Area of Triangles [PM13.09]

		Volume of Shapes 2 [PM13.10]
Properties of Shapes	draw 2-D shapes using given dimensions and angles	Nets of Shapes 2 [PM14.14]
	recognise, describe and build simple 3-D shapes, including making nets	
	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	Angles in Triangles [PM14.16]
		Angles in Quadrilaterals [PM14.17]
		Angles in Regular Polygons [PM14.18]
	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	Circles [PM14.13]
	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	Angles Around a Point [PM14.12]
		Angles on a Straight Line [PM14.11]
		Vertically Opposite Angles [PM14.15]
Position and Direction	describe positions on the full coordinate grid (all 4 quadrants)	Four Quadrants [PM15.02]
	draw and translate simple shapes on the coordinate plane, and reflect them in the axes	Translation 2 [PM15.03]
		Reflection 2 [PM15.04]
Statistics	interpret and construct pie charts and line graphs and use these to solve problems	Line Graphs 3 [PM9.09]
		Pie Charts 1 [PM9.10]
		Pie Charts 2 [PM9.11]
	calculate and interpret the mean as an average	Finding the Mean [PM9.12]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

YEAR 6

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
AUTUMN			
Week 1	Place Value	Numbers to 10,000 Numbers to 100,000 Numbers to a million Numbers to 10 million Compare and order any number	Place value in 4 digit numbers [PM1.20] Place value up to 1,000,000 [PM1.25] Place value up to 10,000,000 [PM1.31] Comparing and ordering numbers to 1,000,000 [PM1.26]
Week 2		Round numbers to 10, 100 and 1,000 Round any number Negative numbers (in context) Negative numbers (more abstract)	Rounding to the nearest 10, 100 and 1000 [PM1.23] Rounding to the nearest 10,000 and 100,000 [PM1.28] Negative numbers 1 [PM1.18] Negative numbers 2 (including addition and subtraction) [PM1.19] Negative numbers 3 [PM1.32]
Week 3	Addition and Subtraction	Add whole numbers with more than 4 digits Subtract whole numbers with more than 4 digits Inverse operations (addition and subtraction) Multi-step addition and subtraction problems Add and subtract integers	4+ Digits: Column addition [PM2.22] 4+ Digits: Column subtraction [PM2.23] Inverse operations [PM2.29] Multi-step addition and subtraction problems [PM2.28]
Week 4	Multiplication and Division	Multiply 4-digits by 1-digit Multiply 2-digits (area model) Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits Multiply up to a 4-digit number by a 2-digit number	3/4-Digit: Multiplying by 1-digit [PM3.50] 2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52]

Week 5	Multiplication and Division	Divide 4-digits by 1-digit Divide with remainders Short division Division using factors Long division (1)	3/4-Digit: Dividing by 1-digit numbers using short division (without remainders) [PM3.53] 3/4-Digit: Dividing by 1-digit numbers using short division (with remainders) [PM3.54] Dividing by 2-digit numbers using short division [PM3.56] Long division 1 (dividing by a single digit number) [PM3.57]
Week 6		Long division (2) Long division (3) Long division (4) Factors Common factors	Long division 1 (dividing by a single digit number) [PM3.57] Long division 2 (dividing by a 2-Digit number) [PM3.58] Division by chunking [PM3.59] Factor pairs [PM3.30] Common factors [PM3.40]
Week 7		Common multiples Primes to 100 Squares and cubes Order of operations Mental calculations and estimation	Common multiples [PM3.55] Prime numbers [PM3.41] Square numbers [PM3.43] Cube numbers [PM3.44] Operations of equal priority [PM11.05] BIDMAS: 4 operations and brackets [PM11.06] BIDMAS: Indices [PM11.07] Mental Strategies for Addition 1 [PM2.24] Mental Strategies for Addition 2 [PM2.25] Mental Strategies for Subtraction 1 [PM2.26] Mental Strategies for Subtraction 2 [PM2.27] Mental strategies for multiplication 1 [PM3.47] Mental strategies for multiplication 2 [PM3.48] Mental strategies for division [PM3.49]
Week 8	Fractions	Reason from known facts Equivalent fractions Simplify fractions Improper fractions to mixed numbers	Equivalent fractions 1 [PM4.05] Equivalent fractions 2 [PM4.15] Simplifying fractions [PM4.23]
Week 9		Mixed numbers to improper fractions Fractions on a number line Compare and order (denominator) Compare and order (numerator) Add and subtract fractions (1)	Mixed numbers and improper fractions [PM4.17] Fractions on a number line 1 [PM4.34] Fractions on a number line 2 [PM4.35] Comparing proper fractions 1 [PM4.16]

Week 10	Fractions	Add and subtract fractions (2) Add mixed numbers Add fractions Subtract mixed numbers	Adding and subtracting fractions with different denominators 2 [PM4.32] Adding and subtracting mixed numbers 2 [PM4.33]
Week 11		Subtract fractions Mixed addition and subtraction Multiply fractions by integers Multiply fractions by fractions Divide fractions by integers (1)	Multiplying fractions by whole numbers [PM4.28] Multiplying simple pairs of proper fractions [PM4.24] Dividing fractions by whole numbers [PM4.25]
Week 12		Divide fractions by integers (2) Four rules with fractions Fractions of an amount Fraction of an amount - find the whole	Dividing fractions by whole numbers [PM4.25] Finding fractions of amounts [PM4.08] Finding fractions of amounts: finding the whole [PM4.36]
Week 13	Position and Direction	The first quadrant Four quadrants Translations Reflections	Plotting points [PM8.15] Four quadrants [PM15.02] Translation 2 [PM15.03] Reflection 2 [PM15.04]
SPRING			
Week 1	Decimals	Decimals up to 2 d.p. Understand thousandths Three decimal places Multiply by 10, 100 and 1,000 Divide by 10, 100 and 1,000	2dp: Recognising place value in decimals [PM1.21] Thousandths [PM12.01] 3dp: Recognising place value in decimals [PM12.02] Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45] Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46]
Week 2		Multiply decimals by integers Divide decimals by integers Division to solve problems Decimals as fractions Fractions to decimals (1)	Multiplying decimals [PM12.09] Dividing decimals [PM12.10] Converting decimals to fractions [PM12.11]
Week 3	Percentages	Fractions to decimals (2) Understand percentages Fractions to percentages Equivalent FDP	Fractions to decimals using division [PM12.12] Introduction to percentages [PM12.05] Finding percentages 1 [PM12.07] Finding percentages 2 [PM12.08] Fractions, decimals and percentages 2 [PM12.13]

Week 4	Percentages	Order FDP Percentage of an amount (1) Percentage of an amount (2) Percentages (missing values)	Fractions, decimals and percentages 1 [PM12.06] Fractions, decimals and percentages 2 [PM12.13] Finding percentages of amounts 1 [PM16.01] Finding percentages of amounts 2 [PM16.02] Finding percentages of amounts 3 [PM16.03] Finding percentages of amounts 4 [PM16.04] Percentages (missing values) [PM16.05]
Week 5	Algebra	Find a rule - one step Find a rule - two step Forming expressions Substitution Formulae	Function machines [PM18.02] Forming expressions 1 [PM18.03] Forming expressions 2 [PM18.04] Forming expressions 3 [PM18.05] Substitution [PM18.06] Formulae [PM18.07]
Week 6		Forming equations Solve simple one-step equations Solve two-step equations Find pairs of values (1) Find pairs of values (2)	Function machines [PM18.02] Forming expressions 1 [PM18.03] Forming expressions 2 [PM18.04] Forming expressions 3 [PM18.05] Solving 1 step equations [PM18.08] Solving 2 step equations [PM18.09] Satisfying equations with 2 variables [PM18.10]
Week 7	Measurement	Metric measures Convert metric measures Calculate with metric measures Miles and kilometres Imperial measures	Converting metric measures [PM5.29] Imperial units of length [PM5.22] Imperial units of mass [PM5.24] Imperial units of volume and capacity [PM5.26]
Week 8	Area, Perimeter and Volume	Shapes - same area Area and perimeter Area of a triangle (1) Area of a triangle (2) Area of a triangle (3)	Area and perimeter [PM13.05] Area of right-angled triangles [PM13.08] Area of triangles [PM13.09]
Week 9		Area of a parallelogram What is volume? Volume - counting cubes Volume of a cuboid	Area of parallelograms [PM13.07] Volume of shapes 1 [PM13.06] Volume of shapes 2 [PM13.10]

Week 10	Ratio and Proportion	Using ratio language Ratio and fractions Introducing the ratio symbol Calculating ratio activity Calculating ratio	Introduction to ratio [PM17.01] Ratios and fractions [PM17.03] Sharing into a given ratio [PM17.04]
Week 11		Using scale factors Calculating scale factors Ratio and proportion problems Ratio and proportion problems (2)	Similar shapes [PM17.05] Proportion [PM17.06]
Week 12	Statistics	Line graphs Circles Read and interpret pie charts Draw pie charts The mean	Line graphs 3 [PM9.09] Circles [PM14.13] Pie charts 1 [PM9.10] Pie charts 2 [PM9.11] Finding the mean [PM9.12]
SUMMER			
Week 1	Geometry	Measure with a protractor Draw lines and angles accurately Introduce angles Angles on a straight line Angles around a point	Measuring angles [PM14.08] Drawing angles [PM14.09] Identifying angles 2 [PM14.05] Angles on a straight line [PM14.11] Angles around a point [PM14.12]
Week 2		Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle - special cases Angles in a triangle - missing angles	Vertically opposite angles [PM14.15] Angles in triangles [PM14.16]
Week 3		Angles in special quadrilaterals Angles in regular polygons Draw shapes accurately Draw nets of 3-D shapes	Angles in quadrilaterals [PM14.17] Angles in regular polygons [PM14.18] Nets of shapes 2 [PM14.14]
Week 4-13	Consolidation	Consolidation or SATs preparation	5 - Problem solving and reasoning assessment (1) [PM19.05] 5 - Problem solving and reasoning assessment (2) [PM19.06] 6 - Problem solving and reasoning assessment (1) [PM19.07] 6 - Problem solving and reasoning assessment (2) [PM19.08]

Primary – Multiplication Tables

This document shows the structure of our Primary – Multiplication Tables course.

Topic / Strand	Nugget Name
Diagnostic Assessment	Diagnostic: Practice Assessment [PMT0.01]
Multiplication Tables	2 Times Table Practice (1) [PMT1.01]
	2 Times Table Practice (2) [PMT1.02]
	2 Times Table Practice (3) [PMT1.03]
	3 Times Table Practice (1) [PMT1.04]
	3 Times Table Practice (2) [PMT1.05]
	3 Times Table Practice (3) [PMT1.06]
	4 Times Table Practice (1) [PMT1.07]
	4 Times Table Practice (2) [PMT1.08]
	4 Times Table Practice (3) [PMT1.09]
	5 Times Table Practice (1) [PMT1.10]
	5 Times Table Practice (2) [PMT1.11]
	5 Times Table Practice (3) [PMT1.12]
	6 Times Table Practice (1) [PMT1.13]
	6 Times Table Practice (2) [PMT1.14]
	6 Times Table Practice (3) [PMT1.15]
	7 Times Table Practice (1) [PMT1.16]
	7 Times Table Practice (2) [PMT1.17]
	7 Times Table Practice (3) [PMT1.18]
	8 Times Table Practice (1) [PMT1.19]
	8 Times Table Practice (2) [PMT1.20]
	8 Times Table Practice (3) [PMT1.21]
	9 Times Table Practice (1) [PMT1.22]
	9 Times Table Practice (2) [PMT1.23]
	9 Times Table Practice (3) [PMT1.24]
	10 Times Table Practice (1) [PMT1.25]
	10 Times Table Practice (2) [PMT1.26]
	10 Times Table Practice (3) [PMT1.27]
	11 Times Table Practice (1) [PMT1.28]
	11 Times Table Practice (2) [PMT1.29]
	11 Times Table Practice (3) [PMT1.30]
	12 Times Table Practice (1) [PMT1.31]
	12 Times Table Practice (2) [PMT1.32]

	12 Times Table Practice (3) [PMT1.33]
Easy Practice	Easy Practice (1) [PMT2.01]
	Easy Practice (2) [PMT2.02]
	Easy Practice (3) [PMT2.03]
Medium Practice	Medium Practice (1) [PMT3.01]
	Medium Practice (2) [PMT3.02]
	Medium Practice (3) [PMT3.03]
Hard Practice	Hard Practice (1) [PMT4.01]
	Hard Practice (2) [PMT4.02]
	Hard Practice (3) [PMT4.03]
Practice Assessments	Practice Assessment (1) [PMT5.01]
	Practice Assessment (2) [PMT5.02]
	Practice Assessment (3) [PMT5.03]
	Practice Assessment (4) [PMT5.04]
	Practice Assessment (5) [PMT5.05]
	Practice Assessment (6) [PMT5.06]
	Practice Assessment (7) [PMT5.07]
	Practice Assessment (8) [PMT5.08]
	Practice Assessment (9) [PMT5.09]
	Practice Assessment (10) [PMT5.10]

Primary – Year 5-6 Arithmetic

This document shows the structure of our Primary – Year 5-6 Arithmetic course.

Topic / Strand	Nugget Name
Diagnostics	Diagnostic: Place Value [PAR0.01]
	Diagnostic: Addition [PAR0.02]
	Diagnostic: Subtraction [PAR0.03]
	Diagnostic: Multiplication [PAR0.04]
	Diagnostic: Division [PAR0.05]
	Diagnostic: Mixed Operations [PAR0.06]
	Diagnostic: Fractions [PAR0.07]
	Diagnostic: Percentages [PAR0.08]
Place Value	Place Value 1 [PAR1.01]
	Place Value 2 [PAR1.02]
Addition and Subtraction	Addition Mental Methods 1 [PAR2.01]
	Addition Mental Methods 2 [PAR2.02]
	Addition Written Methods 1 [PAR2.03]
	Addition Written Methods 2 [PAR2.04]
	Addition Written Methods with Decimals 1 [PAR2.05]
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