INSPIRE MATHS

Inspire Maths Year 5 National Curriculum Correlation Chart

NC objective	*Inspire Maths* page reference	Additional activity
Number – number and place value		
Pupils should be taught to:		
▪ read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	PB4A Unit 1: Numbers to 100 000 pp 8–21 PB5A Unit 1: Whole Numbers (1) pp 2–19	
▪ count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	PB4A Unit 1: Numbers to 100 000 pp 8, 10, 17, 18 PB5A Unit 1: Whole Numbers (1) pp 2, 6, 7, 18, 19	NC Activity 5.1
▪ interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero		NC Activity 5.2
▪ round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	PB4A Unit 2: Whole Numbers (2) pp 22–35 PB5A Unit 1: Whole Numbers (1) pp 20–28	NC Activity 5.3
▪ solve number problems and practical problems that involve all of the above	PB4A Unit 1: Numbers to 100 000 pp 11–14, 17–21 PB5A Unit 1: Whole Numbers (1) pp 11, 15, 25–28 PB4A Unit 2: Whole Numbers (2) pp 22–23, 26–28, 30–35 PB5A Unit 1: Whole Numbers (1) pp 23–28 PB5A Unit 2: Whole Numbers (2) pp 40–41	
▪ read Roman numerals to 1000 (M) and recognise years written in Roman numerals.		NC Activity 5.4

Number – addition and subtraction		
Pupils should be taught to:		
▪ add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)		NC Activity 5.5
▪ add and subtract numbers mentally with increasingly large numbers		NC Activity 5.6
▪ use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	PB4A Unit 2: Whole Numbers (2) pp 32, 35 PB5A Unit 1: Whole Numbers (1) pp 20, 23, 25, 26	
▪ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		
Number – multiplication and division		
Pupils should be taught to:		
▪ identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	PB4A Unit 2: Whole Numbers (2) pp 36–44	
▪ know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers		NC Activity 5.7A NC Activity 5.7B NC Activity 5.7C
▪ establish whether a number up to 100 is		NC Activity 5.8

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	PB4A Unit 3: Whole Numbers (3) pp 45–56, 63–70	NC Activity 5.9
▪ multiply and divide numbers mentally drawing upon known facts	PB4A Unit 2: Whole Numbers (2) pp 33–35 PB4A Unit 3: Whole Numbers (3) pp 48–51, 54–55, 60–62, 70 PB4B Unit 10: Decimals (2) pp 61–62, 65, 68, 70–71 PB5A Unit 2: Whole Numbers (2) pp 35–36, 38–41, 44, 47–49 PB5B Unit 7: Decimals pp 8, 13–14, 19–20, 24–25	NC Activity 5.10
▪ 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	PB3A Unit 7: Division pp 93–110 PB4A Unit 3: Whole Numbers (3) pp 57–70	NC Activity 5.11
▪ multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	PB5A Unit 2: Whole Numbers (2) pp 33–49 PB5B Unit 7: Decimals pp 4–25	
▪ recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})		NC Activity 5.12
▪ solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	PB5B Unit 8: Measurements pp 37–49 PB6B Unit 11: Volume of Solids and Liquids pp 102–109, 113–120	
▪ solve problems involving addition,	PB3A Unit 8: Solving Word Problems 2:	

subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Multiplication and Division pp 111–123 PB4A Unit 3: Whole Numbers (3) pp 63–70 PB5A Unit 2: Whole Numbers (2) pp 57–69	
▪ solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	PB4A Unit 5: Fractions pp 111–116 PB4B Unit 10: Decimals (2) pp 77–79 PB5A Unit 2: Whole Numbers (2) pp 57–61 PB6B Unit 7: Speed pp 2–11, 20	
Number – fractions (including decimals and percentages)		
Pupils should be taught to:		
▪ compare and order fractions whose denominators are all multiples of the same number	PB3B Unit 14: Fractions pp 75–83	
▪ identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	PB3B Unit 14: Fractions pp 69–72, 79–80	NC Activity 5.13
▪ 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}$ = $1\frac{1}{5}$]	PB4A Unit 5: Fractions pp 87–103 PB5A Unit 3: Fractions (1) pp 87–95	
▪ add and subtract fractions with the same denominator and denominators that are	PB3B Unit 14: Fractions pp 84–90 PB4A Unit 5: Fractions pp 101–103, 108–109, 115	

multiples of the same number		
▪ multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	PB4A Unit 5: Fractions pp 107, 112–115 PB5A Unit 4: Fractions (2) pp 112–115, 124–126, 132	
▪ read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$]	PB4B Unit 9: Decimals (1) pp 12–13, 19–20, 26–27, 42–44 PB5B Unit 7: Decimals pp 2–3	
▪ recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	PB4B Unit 9: Decimals (1) pp 21–33 PB5B Unit 7: Decimals pp 2–3	
▪ round decimals with two decimal places to the nearest whole number and to one decimal place	PB4B Unit 9: Decimals (1) pp 35–36, 38–39	
▪ read, write, order and compare numbers with up to three decimal places	PB4B Unit 9: Decimals (1) pp 8–33, 45	
▪ solve problems involving number up to three decimal places	PB4B Unit 9: Decimals (1) pp 27, 30, 32, 33, 45 PB4B Unit 10: Decimals (2) pp 48, 50, 52, 58–60, 61, 63, 64, 66, 68–69, 77–80 PB5B Unit 7: Decimals pp 30–34	NC Activity 5.14
▪ recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal	PB5B Unit 10: Percentage pp 64–70, 90	
▪ solve problems which require knowing	PB5B Unit 10: Percentage pp 73–76 PB6A Unit 6: Percentage pp 141–143, 145–147	NC Activity 5.15

percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.		
Measurement		
Pupils should be taught to:		
▪ convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	PB5B Unit 8: Measurements pp 37–49	NC Activity 5.16
▪ understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints		NC Activity 5.17
▪ measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	PB3B Unit 18: Area and Perimeter pp 163–167	
▪ calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes	PB3B Unit 18: Area and Perimeter pp 169–173 PB4B Unit 12: Area and Perimeter pp 107–108, 110–116	NC Activity 5.18
▪ estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)]		NC Activity 5.19

and capacity [for example, using water]		
▪ solve problems involving converting between units of time	PB3B Unit 15: Time pp 95–104, 111–114 PB4B Unit 11: Time pp 84–85, 90–97	NC Activity 5.20
▪ use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	PB4B Unit 10: Decimals (2) pp 52, 58–60, 63, 64, 68–69, 77–79 PB5B Unit 7: Decimals pp 13, 30–36 PB5B Unit 8: Measurements pp 40–41, 47–48 PB5B Unit 14: Volume of Cubes and Cuboids pp 179–181, 183–184	
Geometry – properties of shapes		
Pupils should be taught to:		
▪ identify 3-D shapes, including cubes and other cuboids, from 2-D representations	PB5B Unit 14: Volume of Cubes and Cuboids pp 155–163 PB6A Unit 3: Nets pp 48–62	NC Activity 5.21
▪ know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	PB4A Unit 6: Angles pp 119–121	NC Activity 5.22
▪ draw given angles, and measure them in degrees (°)	PB4A Unit 6: Angles pp 119–124	
▪ identify: ▪ angles at a point and one whole turn (total 360°) ▪ angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)	PB4A Unit 6: Angles pp 125, 128–130, 132 PB5B Unit 11: Angles pp 92–94, 96, 97–99, 101	NC Activity 5.23

▪ other multiples of 90°		
▪ use the properties of rectangles to deduce related facts and find missing lengths and angles	PB4A Unit 8: Squares and Rectangles pp 146–152 PB4B Unit 12: Area and Perimeter pp 98–103, 105–116	
▪ distinguish between regular and irregular polygons based on reasoning about equal sides and angles.		This activity is covered in Year 6 NC Activities
Geometry – position and direction		
Pupils should be taught to:		
▪ 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.		NC Activity 5.24
Statistics		
Pupils should be taught to:		
▪ solve comparison, sum and difference problems using information presented in a line graph	PB4A Unit 4: Tables and Line Graphs pp 79–85	
▪ complete, read and interpret information in tables, including timetables.	PB4A Unit 4: Tables and Line Graphs pp 71–78, 86	NC Activity 5.25