

1EAK 4/5 A	<mark>JTUMN</mark> TERM							1
	UNIT TITLE	Y4				Y5		
BLOCK		OUTCOMES (see below)	NAT. CURR OUTCOME(S)	READY-TO- PROGRESS CRITERIA	OUTCOMES (see below)	NAT. CURR OUTCOME(S)	READY-TO- PROGRESS CRITERIA	ASSESSMENT/ NOTES
<b>Place Value (A)</b> (11 days)	Place value in 4- and 5- digit numbers	3	Num/PV (ii) (iv) (v) (vi)	4NPV-2	1, 5	Num/PV (i)	5NPV-2, 5NPV-3	
	Place numbers on a line	1	Num/PV (v) (vi)	4NPV-3, 4NPV-4	1, 2	Num/PV (iv)	5NPV-3	
	Place value addition; rounding	6	Num/PV (ii) (iv)	4NPV-2	1, 2, 3	Num/PV (i) (ii) (iv)	5NPV-2, 5NPV-3	
	Place numbers on lines; decimals	1, 2,	Num/PV (vi) (vii)	4NPV-3, 4NPV-4	29, 30	Num/Fracs (vi) (ix)	5NPV-2, 5NPV-3, 5NPV-4	
Addition and Subtraction (A)	Column addition; mental subtraction	10, 11, 12	Add/Sub (i) (ii)	4NF-3, 4NPV-2, 3AS-1, 3AS-2	8, 10, 32	Add/Sub (i) (ii) (iii)	n/a	
(9 days)	More add/sub; choose strategies	9, 10	Add/Sub (i) (ii) (iii)	n/a	9	Add/Sub (ii) (iii)	n/a	
Multiplication and Division (A) (6 days)	Mental multiplication and division	17, 18, 19	Mult/Div (i) (ii)	4NF-1, 4MD-3	12, 13, 15, 18, 21	Mult/Div (i) (ii) (iii) (v)	4NF-2, 5NF-1, 5MD-2	
<b>Time</b> (2 days)	Tell the time; timetables	37	Meas (v)	n/a	40, 43	Meas (vi) Stats (ii)	n/a	
<b>Fractions</b> (7 days)	Fractions of amounts	24	Num/Fracs (i) (iii)	3F-2, 5F-2	25	Num/Fracs (iii)	4F-2, 5F-1	
	Equivalent fractions; +/- fractions	23, 25	Num/Fracs (i) (iv)	4F-3	23, 24, 26	Num/Fracs (i) (ii) (iv)	5F-2	
<b>Place Value (B)</b> (4 days)	Deepen understanding of place value	3, 6,	Num/PV (ii) (iv) (viii)	4NPV-2	1, 2, 3	Num/PV (i) (iv)	5NPV-2, 5NPV-3	
	Add/ subtract powers of 10	6, 9, 15	Num/PV (ii) (iv) (viii)	4NPV-2, 4NF-3	31	Num/Fracs (ix) (x)	5NPV-2, 5NF-1	



Addition and Subtraction (B)	Subtraction strategies	12, 15	Add/Sub (i) (ii)	n/a	32	Num/Fracs (x)	5NF-2	
(11 days)	Add and subtract near multiples	6	Add/Sub (i)	n/a	7	Add/Sub (ii)	n/a	
	Mental addition and subtraction	6	Add/Sub (i)	n/a	7	Add/Sub (ii)	n/a	
	Consolidate written add/sub strategies	12, 14	Add/Sub (i)	3AS-2	5, 7, 8, 9	Add/Sub (i) (ii) (iii)	n/a	
Multiplication and Division	Written methods – multiplication	19	Mult/Div (iv) (v)	4MD-3	16	Mult/Div (iv)	4MD-3, 5MD-3	
<b>(B)</b> (8 days)	Written methods – division	20, 21	Mult/Div (ii)	4NF-2	18	Mult/Div (v) (vi)	5MD-4	
<b>Shape</b> (5 days)	Explore 2-D shape	39, 40, 41	Geom/PoS (i)	4G-2	48	Geom/PoS (vi)	n/a	
	Deepen understanding of 3-D shapes	39	Geom/PoS (i)	n/a	45	Geom/PoS (i)	n/a	

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Decimals, Multiplication and Division	Decimal place value	26, 29	Num/Fracs (ii) (v) (vii)	n/a	19, 29	Mult/Div (vii) Num/Fracs (vi) Meas (i)	5NPV-1, 5NPV-5, 5MD-1	
(10 days)	x and ÷ by powers of 10	25, 29	Num/Fracs (vii)	4MD-1	29, 30	Num/Fracs (viii) Mult/Div (vii)	5NPV-1, 5NPV-3, 5NPV-4, 5MD-1	
	Mental x and ÷, factors and multiples	17, 18	Mult/Div (i) (iii)	4NF-1, 4MD-2, 5MD-1	12, 14, 15	Mult/Div (i) (v)	5NF-1, 5MD-2	
Addition and Subtraction (A) (4 days)	Column addition	11, 32	Add/Sub (i) Num/Fracs (x) Meas (iv)	3AS-2	31	Add/Sub (i) (iii)	n/a	
	Count up to subtract	12, 32, 36	Add/Sub (i) Num/Fracs (x) Meas (iv)	3AS-2	31, 32	Add/Sub (i)	5NF-2	
<b>Measures (A)</b> (4 days)	Exploring 24-hour time	37	Meas (v)	n/a	40	Meas (vi) Stats (ii)	n/a	
Exploring Decimals	Round and subtract decimals	26, 27, 28, 31	Num/Fracs (v) (ix)	n/a	30, 32	Num/Fracs (vi) (viii) (ix)	5NPV-1, 5NPV-3, 5NPV-4	
(5 days)	Fraction and decimal equivalence	23, 28	Num/Fracs (i) (v)	5F-2, 5F-3	28, 29	Num/Fracs (ii) (vi) (xii)	5NPV-3, 5NPV-4, 5F-3	
Addition and Subtraction (B) (6 days)	More column addition	Towards 11	Add/Sub (i)	3AS-2	8, 10	Add/Sub (i)	5NF-2	
	Subtraction strategies	12, 14, 15	Add/Sub (i)	3AS-2	9, 10	Add/Sub (i)	5NF-2	

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Multiplication & Division	Mental x and ÷, factors and multiples	17, 18	Mult/Div (i) (iii)	4NF-1, 4MD-2, 5MD-1	12, 14, 15	Mult/Div (i) (v)	5NF-1, 5MD-2	
(13 days)	Multiplication strategies	17, 18	Mult/Div (ii) (v)	4NF-3, 4MD-2	16	Mult/Div (iv)	5MD-3	
	Grid (Y4) and short (Y5) multiplication	19	Mult/Div (ii) (iv) (v)	4MD-3	16	Mult/Div (iv)	5MD-3	
	Chunking (Y4) and short (Y5) division	20	Mult/Div (ii)	4NF-2	18	Mult/Div (vi)	5MD-4	
<b>Measures (B)</b> (5 days)	Perimeter, area and (Y5) volume	34, 35	Meas (i) (ii) (iii)	4G-2, 5G-2	37, 38, 39	Meas (iii) (iv) (v)	5G-2	
<b>Shape</b> (8 days)	Polygons and co- ordinates	42, 43	Geom/P&D (i) (ii) (iii)	4G-1	49	Geom/P&D (i)	n/a	
	Exploring angles	39, 40, 41	Geom/PofS (i) (ii) (iii) (iv)		46, 47, 48	Geom/PofS (ii) (iii) (iv)	5G-1	



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Number and Place value	Place value next steps: larger numbers	1, 3, 6	Num/PV (ii) (iv) (vi)	NPV-2, NPV-3, NPV-4	1, 3	Num/PV (i) (ii) (iv)	5NPV-2, 5NPV-3	
(6 days)	Count in steps; Roman numerals	4, 8	Num/PV (ix)	n/a	6	Num/PV (vi)	n/a	
	Negative numbers; temperature	5	Num/PV (iii)	n/a	4, 41	Num/PV (iii)	n/a	
Addition & Subtraction (A)	Column addition; money calculation	11, 15, 32, 36	Add/Sub (i)	3AS-2	8, 9, 10, 11	Add/Sub (i) (ii) (iii)	n/a	
(8 days)	Subtraction strategies	14	Add/Sub (i)	3AS-2	32	Add/Sub (i) Meas (vii)	5NF-2	
	More subtraction strategies	14, 15	Add/Sub (i)	3AS-2	7, 22	Add/Sub (ii) Mult/Div (x)	4MD-2	
Fractions (8 days)	Fraction problems	24	Num/Fracs (iii)	5F-1	33	Mult/Div (v) (xi)	5F-1	
	Equivalent fractions; calculation	23, 25	Num/Fracs (i) (iv) (vi)	4F-3, 5F-2	23, 24, 25, 26	Num/Fracs (i) (ii) (iii) (iv)	5F-2	
	Count fractions steps; multiply fractions	23	Num/Fracs (iv)	4F-3	23, 25, 27	Num/Fracs (v)	n/a	
Multiplication & Division (A)	Strategies for mental calculation	17, 18	Mult/Div (ii) (iii)	4MD-2	21, 22	Add/Sub (iv) Mult/Div (x) (xi)	n/a	
(5 days)	Scaling problems	18, 22	Mult/Div (i) (ii) (v) Meas (i)	4NF-1, 4NF-3	12, 14, 17, 20, 21	Mult/Div (i) (viii) (ix) (xi)	5MD-2	
Decimals and Fractions (5 days)	Decimal place value; multiply fractions	26, 27, 29	Num/Fracs (ii) (vii) (viii)	5NPV-1	25, 27	Num/Fracs (iii) (v)	n/a	
	Equivalent fractions and decimals	28, 29	Num/Fracs (ii) (vii)	5NPV-1, 5NPV-2	19, 29	Num/Fracs (vi) (vii) (ix)	5NPV-1, 5NPV-2, 5MD-1	

Exploring Measures	Convert measures; count through zero	33, 36	Meas (i)	5NPV-5	4	Num/PV (iii)	n/a	
(13 days)	SI and imperial measures	33, 36, 38	Meas (i) (iv) Stats (i)	5NPV-5	35, 36, 44	Meas (i) (ii) Stats (i)	5NPV-5	
Exploring Decimals	Decimal place value	28, 31	Num/Fracs (v) (vi) (ix)	5NPV-2, 5NPV-3, 5NPV-4	29, 30, 35	Num/Fracs (vii) (ix); Meas (i)	5NPV-2, 5NPV-3, 5NPV-5	
(5 days)	Hundredths and percentages	30, 32	Num/Fracs (ii) (x)	5NPV-2, 5NPV-5	33, 34	Num/Fracs (xi) (xii)	5F-1, 5F-3	
Addition & Subtraction (B)	Choose calculation strategies	12, 13, 14, 15	Add/Sub (i) (ii)	3AS-2	32	Add/Sub (ii) Num/Fracs (x)	5NF-2	
(7 days)	Consolidate column calculation	11, 14, 15	Add/Sub (i)	3AS-2	8, 10	Add/Sub (i) Num/Fracs (x)	5NF-2	
	Problem solving	10, 11, 21, 13, 14, 15	Add/Sub (i)	3AS-2, 4NF-3	9, 10	Add/Sub (i) (ii)	n/a	
Multiplication & Division (B)	Division strategies	20	Mult/Div (ii)	4NF-2	15, 18	Mult/Div (vi)	5MD-4	
(12 days)	Multiplication strategies	18, 19, 20, 21	Mult/Div (iv) (v)	4MD-3	16, 21	Mult/Div (iv)	5MD-3	
	Solve problems	11, 14, 16, 18, 21	Add/Sub (i) (iii) Mult/Div (ii) (iv) (v)	4NF-3, 4MD-2	16, 21	Mult/Div (iv)	5MD-3	
<b>Time and Data</b> (6 days)	Time, data recording & line graphs	37, 38	Stats (i) (ii)	n/a	36, 44	Meas (ii) Stats (i)	n/a	
	Time, rate & line graphs	33, 38	Meas (vi) Stats (i)	n/a	17, 44	Stats (i) (ii) Mult/Div (xi)	n/a	

## Year 4 Outcomes (skills in bold are linked to National Curriculum Statutory requirements)

1. Read, write and locate any 3-digit number on a landmarked line from 0-1000 and use this to locate 4-digit numbers on a landmarked line and use this to compare/order numbers.

2. Round to ten, a hundred and a thousand.

3. Understand the numbers of 1s, 10s, 100s, 100os in a 4-digit no, and the use of zero as a place-holder.

4. Count in multiples of 6, 7, 9, 25 and 1000.

5. Recognise negative numbers in relation to number lines and temperature.

6. Add and subtract multiples of 1, 10, 100, 1000 without difficulty.

7. Multiply 1 and 2-digit whole numbers by 10, 100 and 1000.

8. Read Roman numerals to 100 (I to C).

9. Solve number and practical problems involving place value.

10. Mentally add and subtract any pair of 2-digit numbers or 3-digit multiples of 10.

11. Use column addition to add 3-digit and 4-digit numbers: first expanded, then compact method.

12. Subtract numbers from 3-digit numbers using 'Frog'/counting up, e.g. 426–278, 321-87.

13. Use 'Frog' to subtract from multiples of 1000 where the difference is less than 500.

14. Use column subtraction to subtract 3 and 4-digit numbers: first expanded, then compact method.

15. Estimate and use inverse operations to check answers to a calculation.

16. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

17. Know and recite times tables, including division facts, up to 12 × 12; multiply by 0 and multiply and divide by 1.

18. Use known facts, place value, factors and commutativity to multiply and divide mentally, including multiplying three numbers together.

19. Multiply 1-digit numbers by 2-digit or 'friendly' 3-digit numbers mentally or using grid method (i.e. using the distributive law).

20. Know how to use 'efficient chunking' for division above the range of the tables facts, e.g.  $84 \div 6 = ?$ . Begin to extend this to 3-digit numbers.

21. Solve single-step problems; begin to solve multi-step problems, including multiplication/division.

22. Solve scaling and harder correspondence problems: n objects are connected to m objects.

23. Write the equivalent fraction for fractions with given denominators or numerators, e.g.  $\frac{1}{2} \equiv \frac{2}{8}$ ; express a fraction in its simplest form, e.g.  $\frac{6}{12} \equiv \frac{1}{2}$ .

24. Use times tables to find unit and non-unit fractions of amounts, e.g. 1/6 of 48, 3/8 of 64.

25. Add and subtract fractions with the same denominator.

26. Know that one-place decimal numbers represent ones and tenths.

27. Round decimals with one decimal place to the nearest whole number.

28. Recognise and write decimal equivalents of any number of tenths or hundredths and decimal equivalents to ¼, ½, ¾.

29. Find the effect of dividing a 1 or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.

30. Count on and back in hundredths.

31. Compare numbers with the same number of decimal places up to 2 decimal places.

32. Solve simple measure/money problems involving fractions and decimals to 2 decimal places.

33. Convert between units of measurement, e.g. cm to m, g to Kg, ml to L; units of time.

34. Measure and calculate the perimeter of a rectilinear figure (incl. squares) in cm and m.

35. Find the area of rectilinear shapes by counting squares.

36. Estimate, compare and calculate different measures, including money in pounds and pence.

37. Convert between units of time, analogue/digital times, and between 12-hour and 24-hour times.

38. Interpret and present discreet data using bar charts, pictograms and tables, and continuous data on time graphs; answer questions re-data.

39. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

40. Identify acute and obtuse angles, compare and order angles up to 180°.

41. Identify lines of symmetry in 2-D shapes presented in different orientations; complete a simple symmetric figure with respect to one line of symmetry.

42. Describe positions on a 2-D grid as coordinates in the first quadrant, plot specified points and draw sides to complete a given polygon.

43. Describe movements between positions as translations of a given unit to left/right, up/down.

## Year 5 Outcomes (skills in bold are linked to National Curriculum Statutory requirements)

**1. Read, write** and locate 5- and 6-digit numbers on a landmarked line; **use this to compare/order numbers; recognise the value of each digit.** 

2. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.

3. Count forwards or backwards in steps of powers of 10 for any given number < 1,000,000.

4. Interpret negative numbers in context, counting backwards and forwards through zero.

5. Solve number problems and practical problems involving place value.

6. Read Roman numerals and recognise years written in Roman numerals.

**7. Add/subtract mentally with confidence**, where numbers are less than 100 or the calculation relies upon simple addition/subtraction and place value.

8. Confidently add numbers with up to 4 or 5 digits using column addition, including adding 'piles' of numbers.

9. Subtract larger numbers using expanded or compact column subtraction, or by counting up.

10. Use rounding to check answers and determine levels of accuracy.

11. Solve addition and subtraction multi-step problems, deciding which operations and methods to use and why.

12. Know and recite all times tables including division facts; identify multiples and factors, including common factors of two numbers.

13. Identify prime numbers up to 100 and *know* primes up to 19; understand the vocabulary of prime and composite numbers; identify prime factors.

14. Use efficient mental methods to multiply two or three numbers.

15. Perform divisions mentally within the range of tables using remainders, fractions and decimal equivalences, e.g.  $68 \div 8 = 8$  r4 or  $8^{1}/_{2}$  or 8.5.

16. Multiply 2, 3, 4-digit numbers by numbers ≤26 using long or short multiplication or grid method; multiply 2-digit by 2-digit numbers using grid method.

17. Scale up or down by a factor of 2, 5 or 10; solve problems involving scaling up/down by simple fractions and problems involving simple rates.

**18.** Divide **2**, **3**, **4-digit numbers by 1-digit numbers above tables range; choose/use efficient methods**; interpret remainders appropriately acc. to context.

19. Understand the effect of multiplying/dividing by 10, 100, 1000, including 1- and 2-place decimal answers.

20. Recognise and use square and cube numbers and the matching notation.

21. Solve problems involving multiplication and division, using knowledge of factors, multiples, squares and cubes.

22. Solve problems involving addition, subtraction, multiplication, division and a combination, including understanding the meaning of the equals sign.

23. Identify, name, write equivalent fractions; express fractions in their simplest form, including tenths to fifths and hundredths to tenths, e.g.  $\frac{40}{100} \equiv \frac{4}{10} \equiv \frac{2}{5}$ .

24. Compare and order fractions where the denominators are multiples of the same number.

25. Recognise mixed numbers and improper fractions and convert from one to the other, writing mathematical statements.

26. Add and subtract fractions where the denominators are multiples of the same number.

27. Multiply proper fractions and mixed numbers by whole numbers supported by materials and diagrams.

28. Identify simple fraction and decimal equivalents:  $\frac{1}{2} \equiv 0.5$ ,  $0.25 \equiv \frac{1}{4}$  and  $0.75 \equiv \frac{3}{4}$ ,  $\frac{1}{5} = 0.2$ ,  $\frac{2}{5} = \frac{4}{10} = 0.4$ ,  $\frac{4}{5} = \frac{8}{10} = 0.8$  etc. 29. Write decimal numbers as tenths, hundredths, thousandths, e.g. 0.71 as  $\frac{71}{100}$ , 0.327 as  $\frac{327}{1000}$ ; relate thousandths to tenths and hundredths.

30. Locate 2-place decimal numbers on a line and round them to the nearest tenth or whole number.

31. Add 2-place decimal numbers mentally or using column addition.

32. Subtract 1- and 2-place decimal numbers by counting up, e.g. 6.2 – 3.5, 13.1 – 9.45.

33. Solve problems involving fractions, decimals and percentages using known equivalences to help.

34. Recognise the % symbol, understand that percentages are the number of parts out of 100; write percentages as hundredths in decimal and fractional form.

35. Measure and compare capacities, weights and lengths; convert between different SI units.

36. Understand and use approximate equivalences between common imperial and SI units.

37. Measure and calculate perimeters of composite rectilinear shapes using SI units.

38. Understand the concept of area, estimate areas of irregular shapes and count squares to find these; calculate areas of rectangles using standard units.

**39.** Estimate volumes of cubes and cuboids.

40. Solve problems involving converting between units of time; use 12- and 24-hour times, find time intervals and tell the time with confidence.

41. Begin to read scales of different types; solve scaling problems involving measures.

42. Use all four operations to solve problems involving measures using decimal notations, including scaling.

43. Complete, read and interpret information in tables, including timetables.

44. Create and interpret line graphs, solving comparison, sum and difference problems.

45. Identify 3-D shapes from 2-D representations.

46. Find unknown angles in triangles and **rectangles**; **identify angles round a point and on a straight line, finding missing angles.** 

47. Know angles are measured in degrees, estimate and compare acute, obtuse and reflex angles, draw and measure given angles.

48. Understand properties of rectangles and triangles; distinguish regular and irregular polygons, based on reasoning about equal sides/angles.

49. Identify, describe and represent position of a shape following a reflection or translation, using appropriate language; know that shape is unchanged.