

2 ORAL WORK AND MENTAL CALCULATION

Activity	Objectives
STRAND 1: NUMBERS AND THE NUMBER SYSTEM	
Topic 1.1: Place value, ordering and rounding (whole numbers)	
1. Digit value	<ul style="list-style-type: none"> Read and write whole numbers to at least 10 000 in figures and words, and know what each digit represents Partition numbers into thousands, hundreds, tens and ones Add/subtract 1, 10, 100 or 1000 to/from any integer
2. Roundabouts 3. Spot the multiple of 10	<ul style="list-style-type: none"> Round any positive integer less than 1000 to the nearest 10 or 100
4. Different steps	<ul style="list-style-type: none"> Count on or back in tens and hundreds
5. Getting larger	<ul style="list-style-type: none"> Add/subtract 1, 10 100 or 1000 to/from any integer, and count on or back in tens, hundreds or thousands from any whole number up to 10 000
6. Housey housey	<ul style="list-style-type: none"> Read and write whole numbers to 1000
7. Tens division	<ul style="list-style-type: none"> Multiply or divide any integer up to 1000 by 10 (whole number answers), and understand the effect
8. Inequalities 1 9. Inequalities 2	<ul style="list-style-type: none"> Use symbols correctly, including less than ($<$), greater than ($>$), equals ($=$)
10. Negative comparisons	<ul style="list-style-type: none"> Recognise negative numbers in context (e.g. on a number line, on a temperature scale)
Topic 1.2: Properties of numbers and number sequences	
11. Counting in steps 12. Add 11 13. Crazy counting 14. Number sequences 15. Counting in multiples of 25, 50 and 100 16. Add 25 17. Counting in 25s	<ul style="list-style-type: none"> Recognise and extend number sequences formed by counting from any number in steps of constant size
18. Odd or even 19. Odd and even bingo	<ul style="list-style-type: none"> Recognise odd and even numbers up to 1000
20. Fizz buzz 21. Multiples of...	<ul style="list-style-type: none"> Recognise multiples of 2, 3, 4, 5 and 10, up to the tenth multiple
Topic 1.3: Fractions and decimals	
22. Name the fraction	<ul style="list-style-type: none"> Use fraction notation

Y4 Oral work and mental calculation**Strand: 2 Topic: 2.1/2.2/2.3**

23. Fraction facts	<ul style="list-style-type: none"> Begin to relate fractions to division and find simple fractions such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{10}$.. of quantities
24. Board fractions	<ul style="list-style-type: none"> Begin to relate fractions to division and find simple fractions such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{10}$.. of numbers
25. Estimating fractions	<ul style="list-style-type: none"> Begin to relate fractions to division and find simple fractions such as $\frac{2}{3}$, $\frac{3}{4}$, $\frac{3}{5}$, $\frac{7}{10}$ of shapes
26. Fraction and division facts	<ul style="list-style-type: none"> Begin to relate fractions to division
27. Making wholes	<ul style="list-style-type: none"> Identify two simple fractions with a total of 1
28. Compared to a half	<ul style="list-style-type: none"> Order simple fractions: for example, decide whether fractions such as $\frac{3}{8}$ or $\frac{7}{10}$ are greater or less than one half
29. Decimal order	<ul style="list-style-type: none"> Understand decimal notation and place value for tenths and hundredths, and use it in context
30. Pounds and pence	<ul style="list-style-type: none"> Understand decimal notation and place value for tenths and hundredths, and use it in context. For example: convert a sum of money such as £13.25 to pence
31. In the bag	<ul style="list-style-type: none"> Begin to use ideas of simple proportion
STRAND 2: CALCULATIONS	
Topic 2.1: Addition	
32. Make the number – addition 33. Add them up 34. Race to 100	<ul style="list-style-type: none"> Use known number facts and place value to add or subtract mentally, including any pair of two-digit numbers
35. Make the pair 1	<ul style="list-style-type: none"> Derive quickly all pairs of multiples of 5 with a total of 100
36. Facts round the class 1 37. Facts round the class 2	Consolidate knowing by heart: <ul style="list-style-type: none"> addition and subtraction facts for all numbers to 20
38. Facts round the class 3	<ul style="list-style-type: none"> Derive quickly all number pairs that total 100
39. Make the pair 2	<ul style="list-style-type: none"> Derive quickly all pairs of multiples of 50 with a total of 1000
40. Facts around the class 4	<ul style="list-style-type: none"> Derive quickly all multiples of 100 that equal 1000
Topic 2.2: Subtraction	
41. Make the number – subtraction 42. In your head 43. Take them away	<ul style="list-style-type: none"> Use known number facts and place value to add or subtract mentally, including any pair of two-digit whole numbers
Topic 2.3 Addition or subtraction	
44. True or false? 45. Name the fact 46. Call it out 47. Addition or subtraction bingo	Consolidate knowing by heart: <ul style="list-style-type: none"> addition and subtraction facts for all numbers to 20

Y4 Oral work and mental calculation**Strand: 2 Topic: 2.4/2.5**

48. Number chains	<ul style="list-style-type: none"> Add three or four small numbers, finding pairs totalling 10, or 9 or 11
49. What's my number?	<ul style="list-style-type: none"> Continue to use the relationship between addition and subtraction
50. Add on and take away 1 51. Add on and take away 2 52. What's the jump?	<ul style="list-style-type: none"> Use known number facts and place value to add or subtract mentally, including any pair of two-digit whole numbers
Topic 2.4 Multiplication	
53. Quick facts bingo 54. Multiplication grid 55. Find the multiple - multiplication	Know by heart: <ul style="list-style-type: none"> multiplication facts for the 2, 3, 4, 5, 10 times tables
56. Multiples of 4 lottery	Know by heart: <ul style="list-style-type: none"> multiplication facts for the 4 times table
57. Multiples cards	Begin to know: <ul style="list-style-type: none"> multiplication facts for the 7 times table
58. Around the clock	Begin to know: <ul style="list-style-type: none"> multiplication facts for the 9 times table
59. Multiples of 6 lottery	Begin to know: <ul style="list-style-type: none"> multiplication facts for the 6 times table
60. Multiples of 8	Begin to know: <ul style="list-style-type: none"> multiplication facts for the 8 times table
61. Fill it up	Begin to know: <ul style="list-style-type: none"> multiplication facts for the 11 times table
62. Turning the tables	<ul style="list-style-type: none"> Use closely related facts (e.g. to multiply by 9 or 11, multiply by 10 and adjust)
63. Partitioning	<ul style="list-style-type: none"> Partition numbers into hundreds, tens and unit
64. Tennis doubles	<ul style="list-style-type: none"> Derive quickly doubles of all whole numbers to 50
Topic 2.5: Division	
65. Finding factors 66. Find the multiple – division	Know by heart: <ul style="list-style-type: none"> division facts corresponding to the 2, 3, 4, 5, 10 times tables
67. Halve me	Derive quickly: <ul style="list-style-type: none"> doubles of all whole numbers to 50 and the corresponding halves
68. Racetrack division	Derive quickly: <ul style="list-style-type: none"> division facts corresponding to the 2, 3, 4, 5, 10 times tables

Y4 Oral work and mental calculation Strand: 2 Topic: 2.6/2.7 Strand: 3 Topic: 3.1/3.2/3.3/3.4

Topic 2.6: Multiplication or Division	
69. Make my number fact 70. Quick facts 1	Know by heart: • multiplication facts for 2, 3, 4, 5 and 10 times tables and the corresponding division facts
71. Quick facts 2	Derive quickly: • doubles of all whole numbers to 50 and their corresponding halves
72. Choose a number	• Use known number facts and place value to multiply and divide integers, including by 10 and 100
73. Multi-step doubles	Derive quickly: • doubles of multiples of 100 to 5000 (e.g. 3400×2) and the corresponding halves (e.g. $\frac{1}{2}$ of 6800)
Topic 2.7: Addition, subtraction, multiplication or division	
74. Number families	Know by heart: • multiplication facts for 2, 3, 4, 5 and 10 times tables and the corresponding division facts • Use known number facts and place value to add or subtract mentally, including any pair of two-digit numbers
STRAND 3: SOLVING PROBLEMS	
Topic 3.1: Reasoning about numbers	
75. What's my rule? 76. Hit the target 77. I'm thinking of a number 78. What's the number? 79. Arithmogons	• Investigate a general statement about familiar numbers by finding examples that satisfy it
80. Which operation?	• Choose and use appropriate number operations and appropriate ways of calculating to solve problems
Topic 3.2: Reasoning about shapes	
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Topic 3.3: Problems involving 'real life'	
81. What's the question? 82. Number stories	• Use all four operations to solve word problems involving numbers in real life, using one or more steps
Topic 3.4: Problems involving money	
83. Two coins only 84. What's my change?	• Use all four operations to solve word problems involving numbers in money, using one or more steps
85. How much?	• Use all four operations to solve word problems involving numbers in money, using one or more steps, including pounds to pence and vice versa

Y4 Oral work and mental calculation**Strand: 4 Topic: 4.1 Strand: 5 Topic: 5.1**

86. Estimating prices	<ul style="list-style-type: none"> Use all four operations to solve word problems involving numbers in “real life” and money, using one or more steps
87. Key word tables	<ul style="list-style-type: none"> Use all four operations to solve word problems involving numbers in money, using one or more steps
STRAND 4: HANDLING DATA	
Topic 4.1: Organising and interpreting data	
88. Tallies	<ul style="list-style-type: none"> Solve a problem by collecting quickly, organising, representing and interpreting data in tables, charts, graphs and diagrams, including those generated by a computer, for example: tally charts and frequency tables
89. Car sales bar chart	<ul style="list-style-type: none"> Solve a problem by collecting quickly, organising, representing and interpreting data in tables, charts, graphs and diagrams, including those generated by a computer, for example: bar charts
90. Venn shapes	<ul style="list-style-type: none"> Solve a problem by collecting quickly, organising, representing and interpreting data in tables, charts, graphs and diagrams, including those generated by a computer, for example: Venn diagrams (two criteria)
STRAND 5: MEASURES, SHAPE AND SPACE	
Topic 5.1: Measures - length	
91. Quick answers 92. Quick estimates 93. Ruler reading 94. Thumbs up, thumbs down	<ul style="list-style-type: none"> To record estimates and readings from scales to a suitable degree of accuracy

