Curriculum for Excellence Level 2
(by the end of P7 or earlier for some)

Mental agility progressions and flashcards from the **WEE RED BOX**

For maths CPD and/or other support materials from **Tom Renwick** visit **www.mathsontrack.com**

Aug-Dec of P7

- add / subtract any single digit number to / from 2 or 3 digits and practice all tables to 10
- use decimals to find halves of whole numbers eg 1/2 of 7 is 3.5 and discuss a digit, its place and its value, including decimals
- give remainders to division eg 17÷8, 24÷9
- multiply and divide decimals by 10 and 100 eg 2.8x100, 3.57x100 and 4.8÷10, 3.14÷100, ...
- for whole number work determine which calculations are needed and share solutions
- find 2/3, 3/4, 2/5 etc of quantities eg 2/3 of 12, 3/4 of 20, 2/5 of 20, 3/5 of 10, 4/5 of 30 and fractions of 3 digit numbers eg 1/4 of 600
- bond 3 digit numbers with 1000, eg 505 and 495, and find the change from £10 eg £5.05
- add and subtract 2 digit numbers to/from 2 digit numbers eg 69+36, 74-29, ...
- convert between 12 and 24 times, find time differences, eg between 15:45 and 16:05 and simple time / distance / speed calculations
- find 50%, 25% and 10% of quantities eg 25% of 12 apples, 10% of 40 kg, ...
- recognise the equivalence between fractions, decimals and percentages eg 1/4 = 0.25 = 25% or 3/4 = 0.75 = 75%, 1/5 = 0.2 = 20% and choose the preferred form when solving a problem, expaining the choice of method
- multiply and divide 2 and 3 digit numbers by a single digit eg 35x4, 55x6, and 60÷5, 135÷3, ...
- find change from £5, £10 and £20 compare costs and determine what can be afforded
- add and subtract simple decimals eg 5 + 1.7 and 6 - 2.5

Jan - March of P7

- find the doubles of any 2 or 3 digit number eg 2x56, 2x87, 2x242, 2x351, ..
- do **simple** addition and subtraction of fractions eg 1/2+1/4, 3-1/2, 2/5+3/5, 1/2-1/4
- add and subtract 2 digit numbers to/from 2 digit numbers eg 69+37, 51-28, including decimals
- do simple additions involving negative numbers and investigate how these numbers are used
- use decimals to find halves and quarters eg 1/2 of 2.5 is 1.25, 1/4 of 9 is 2.25
- add and subtract multiples of 10 and 100 to / from 4 digits eg 2684+300, 5167-60
- multiply and divide decimals by 10 and 100 eg 61.6x10, 31÷10, 9.8x100, 236.3÷10
- find 2/3, 3/4, 2/5 etc eg 2/3 of 18, 3/4 of 24, 2/5 of 30, 3/5 of 40, 4/5 of 35, ... , 1/6, 1/7 and 1/8, and fractions of 3 digit numbers eg 1/2 of 950, ...
- use knowledge of rounding to estimate the answer to a problem, then after calculating, decide if the answer is reasonable and share solution
- find 50%, 25% and 10% of simple quantities eg 25% of 32m, or 10% of 40
- recognise the equivalence between fractions, decimals and percentages eg 2/5 = 0.4 = 40%, and discuss and use mental agility strategies for fractions, percentages and decimal fractions
- multiply and divide 2 and 3 digit numbers by a single digit eg 55x4, 15x9, and 80÷5, 165÷3, ...
- convert between related units of the metric system and use common units when estimating sizes, including perimeters areas and volumes
- give remainders to division eg 17÷8, 24÷9

April - June of P7

- multiply and divide decimals by 10 and 100 eg 31.6x10, 53.06x10, 119.8x100, 23.06x100 and 143÷10, 47.05÷10, 155÷100, ...
- find change from £20, and compare costs and determine what can be afforded, using terms profit and loss in simple calculations
- find fractions of quantities eg 2/3 of 27, 3/4 of 32, 4/5 of 40, 1/6 of 36, 1/7 of 35 and 1/8 of 64, 3/10 of 40, and everyday contexts in which fractions are used, discuss and use mental agility strategies for fractions
- find 50%, 25%, and 10% eg 50% of 7 kg, 25% of £24, 10% of 18 and discuss mental strategies
- use decimals to find 1/2 or 1/4 eg 1/2 of 2.5 is 1.25, 1/4 of 13 is 3.25 explain the links between a digit, its place and its value, including decimals
- add and subtract multiples of 10 and 100 to / from 4 digits eg 4288+800, 5177-80
- recognise the equivalence between fractions, decimals and percentages eg 2/3 = 0.67 = 67%, and choose the preferred form when solving a problem, expaining the choice of method
- multiply and divide 2 and 3 digit numbers by a single digit eg 75x4, 55x8, and 90÷5, 240÷6
- do simple fraction add and subtract sums such as 1 - 2/5 or 1 1/4 + 3/4 and recognise if a fraction is > or < than a half eg 2/5 is less, and 3/5 is more
- do simple additions involving negative numbers and investigate how these numbers are used
- calculate time differences using electronic or paper based time tables simple and do simple time / distance / speed calculations
- add and subtract simple decimals eg 3.6 + 2.5 and 2.7 - 1.2