Maths - Year 4

Pattern and Algebra 4: Exploring 'equals' in balancing number sentences

Key Vocabulary		Mathematical Skills
Multiple	The product of two whole numbers larger than one, e.g. 15 is a multiple of 3 and of 5, 5 x 3 = 15.	 Recognise that some multiples occur in more than one sequence. Explain that they have used connections between multiplying and dividing to predict how many multiples are in a sequence in the range 1 - 100. Work systematically to compare sequences of multiples and find the lowest common multiple. Explain that the factors of a number are the numbers that can be divided into it without leaving a remainder. Find factors using inverse multiplying and dividing facts. Use multiplying number trios to find factors and factor pairs.
Common mul- tiples	A number that is a multiple of two or more other numbers, e.g. 24 is a com- mon multiple of 2, 3 and 6.	
Factor	A number that divides into another number exactly, e.g. 4 is a factor of 8.	
Factor pair	Two numbers that multiply together to make another number, e.g. 2 and 3 are a factor pair of 6, 2 x 3 = 6.	
$ \begin{array}{c} \text{Wathematical Wethods} \\ \text{Finding multiples to 100.} \\ \text{Multiples of 4} \\ \hline \\ & \frac{4 & 8 & 12 & 16 & 20}{24 & 28 & 32 & 36 & 40} \\ & \frac{44 & 48 & 52 & 56 & 60}{64 & 68 & 72 & 76 & 80} \\ & \frac{44 & 48 & 52 & 56 & 60}{64 & 68 & 72 & 76 & 80} \\ & \frac{33 & 66 & 912 & 15 & 18 & 21 & 24 & 27 & 30}{33 & 36 & 39 & 42 & 45 & 48 & 51 & 54 & 57 & 60} \\ & \frac{33 & 66 & 69 & 72 & 75 & 78 & 81 & 84 & 87 & 90}{93 & 96 & 99} \\ \hline \end{array} $		
- Exploring common multiples e.g. of 2, 4 and 5.		
- Finding the lowest common multiple e.g. multiples of 4 and 5.		
0 l0 20 30 twenty thirty		
- Making lists of multiples to solve problems.		
- Exploring multiples and factors. x 2 3 4		

 $x = 2 = 12 \text{ and } 6 \times 2 = 12$ $x = 2 = 12 \text{ and } 6 \times 2 = 12$ $x = 2 = 12 \text{ and } 6 \times 2 = 12$ x = 2 = 3 = 4 6 = 12 = 18 = 24 7 = 14 = 21 = 28 8 = 16 = 24 = 32

- Exploring factors with apparatus e.g. 24.



Can you..?

- Work out the first three common multiples of 2, 4 and 5.

- Karmal jogs every 5 days and Janet jogs every 3 days. They both start jogging on a Sunday. On which day of the week will they both jog on the same day again?

- Find 3 factor pairs for 20.