Number Facts: Year 3

Number and place value

Pupils should be taught to:

- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number

Addition and subtraction

Pupils should be taught to:

- add and subtract numbers mentally, including:
  - a three-digit number and ones
  - a three-digit number and tens
  - a three-digit number and hundreds

Multiplication and division

Pupils should be taught to:

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

Fractions

Pupils should be taught to:

- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- recognise and show, using diagrams, equivalent fractions with small denominators
- add and subtract fractions with the same denominator within one whole (e.g. $^5/_7 + {}^1/_7 = {}^6/_7$)

Measurement

Pupils should be taught to:

- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

know the number of seconds in a minute and the number of days in each month, year and leap year

Number Facts: Number and place value

- Know the sequence of counting in 50's.
- Know the sequence if counting in 100's

Number Facts: Measure

- 60 seconds = 1 minute
- How many days in each month / year / leap year.
- Find and recognise complements to 60.
- 50p x 2 = £1.00 £50 x 2 = £100
- 25 p x 4 = £1.00 £25 x 4 = £100
- 20p x 5 = £1.00 £20 x 5 = £100
- 1000g = 1kg 1000ml = 1l 1000cm = 1km
- 1000 ÷ 2 = 500 1000 ÷ 4 = 250
- ½ l/kg/km = 500
- ¼ l/kg/km = 250
- ¾ l/kg/km = 750

Number Facts: Fractions

- $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$
- $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{5}{5}$ = 1 whole
- $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{6}{6}$ = 1 whole
- $\frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} = \frac{7}{7}$ = 1 whole
- $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{8}{8}$ = 1 whole
- $\frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} = \frac{9}{9}$ = 1 whole
- $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \frac{10}{10}$ = 1 whole
- Understand fraction facts related to whole number facts

  1 + 5 = 6 (Year1)

  $\frac{1}{6} + \frac{5}{6} = \frac{6}{6}$ (Year 3)

Number facts: Addition and subtraction

- Know all the complements to 100

  □ + □ = 100
- Know pairs of multiples of 100 that total 1000

  1 + 9 = 10 (Year 1)

  10 + 90 = 100 (Year 2)

  100 + 900 = 1000 (Year 3)

Number Facts: Multiplication and division

- Know the 3, 4 and 8 times table and the related division facts
- Understand that □ x 2 = doubling
- Understand that □ ÷ 2 = halving
- Know that…

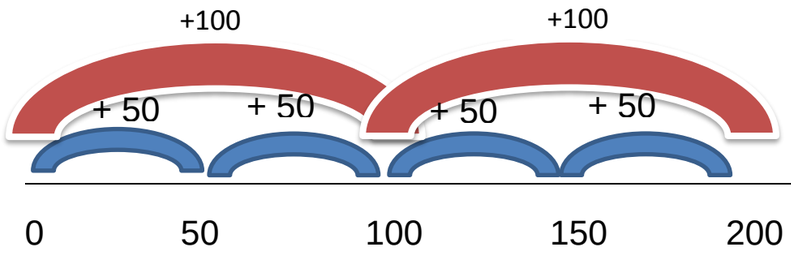
  50 x 2 = 100

  25 x 4 = 100

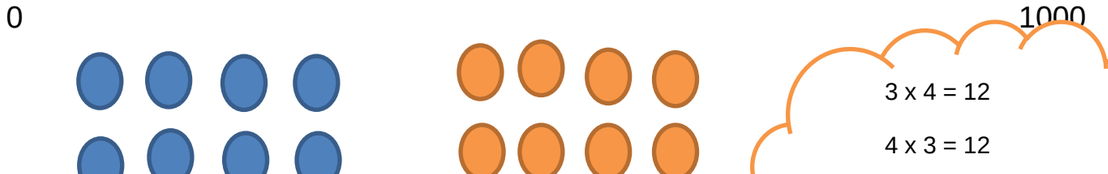
  20 x 5 = 100

Images and mathematical models to support year 3 conceptual understanding underpinning the facts

Counting in sequences of 50 and 100



Numberline to 1000



3 x 4 = 12

4 x 3 = 12

8 x 3 = 24

3 x 8 = 24

Using knowledge of numberbonds to 100 to find number bonds to 1000