

Year 2 Calculation Expectations

ADDITION

- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts to 100.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- Add numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers.
- Solve problems with addition including those involving numbers, quantities and measures.

Memorise and reason with number facts to 20 in several forms.

8 + 12 = 20
12 + 8 = 20
20 - 12 = 8
20 - 8 = 12

8 12

20

40 + 8 = 48

42

53

Use partitioning to add two 2-digit numbers using concrete resources and/or a numbered number line and then progressing to an empty number line.

$44 + 33 = 77$

Jump of tens first then jumps of units

+10 +10 +10 +1 +1 +1

44 54 64 74 75 76 77

This is your answer

SUBTRACTION

- Recall and use subtraction facts to 20 fluently, and derive and use related facts to 100.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- Subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers.

Memorise and reason with number facts to 20 in several forms.

8 + 12 = 20
12 + 8 = 20
20 - 12 = 8
20 - 8 = 12

8 12

20

20 - 2 = 18 18 + 2 = 20

Subtract 2 digit and ones

$12 - 3$

8 9 10 11 12 13

Subtract 2 digit and tens

$54 - 40$

14 24 34 44 54 64

Use partitioning to subtract two 2-digit numbers using concrete resources and/or a numbered number line and then progressing to an empty number line.

$36 - 12 = 24$

36 - 12 = 24

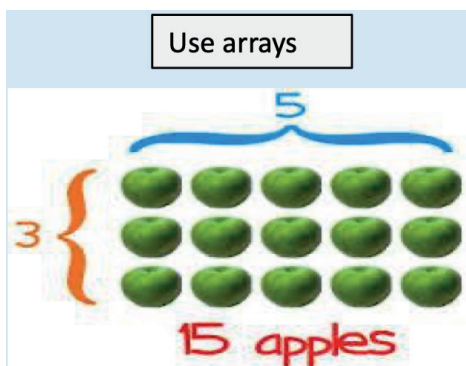
24 34 36

Year 2 Calculation Expectations



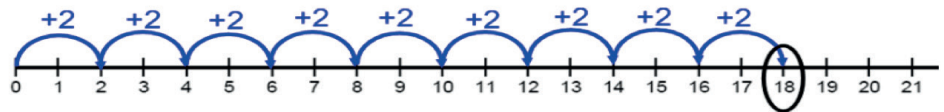
MULTIPLICATION

- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.



Model and bridge link from repeated addition to solving multiplication problems using a number line.

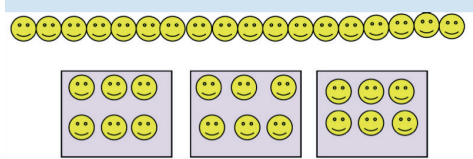
$9 \text{ groups of } 2 = 18$
 $9 \text{ jumps of } 2 = 18$
 $9 \times 2 = 18$



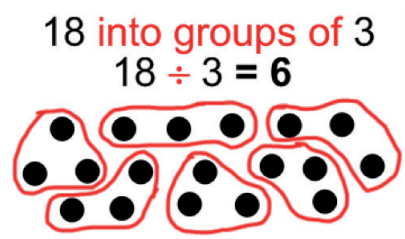
DIVISION

- Recall and use division facts for 2, 5 and 10 multiplication tables.
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
- Find $1/3$; $1/4$; $2/4$; $3/4$ of a length, shape, set of objects or quantity**

Further develop understanding of difference between **sharing** and **grouping** using concrete resources.



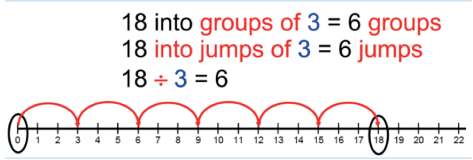
18 smiley faces shared between 3 classes.



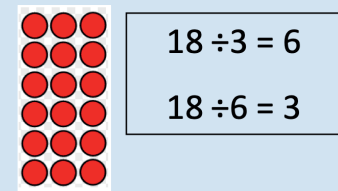
Model division as grouping on a number line (ITP 'Grouping')



Children use numbered number lines to divide using grouping.



Reinforce division through the use of arrays.



Remember to develop connections between fractions and division and rephrase this calculation as $1/3$ of 18 is the same as $18 \div 3 = 6$.