Maths Knowledge Organiser—Year 5

Addition and Subtraction

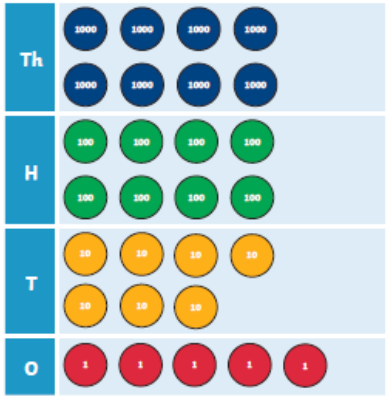
Key Vocabulary:

- Add
- Altogether
- Subtract
- Take away
- Equals
- Total
- Part
- Whole
- Exchange
- Estimate
- Inverse operation
- Place value
- Column method

Key Knowledge:

Addition

Place Value Grid: 3274 + 5601 = 8875

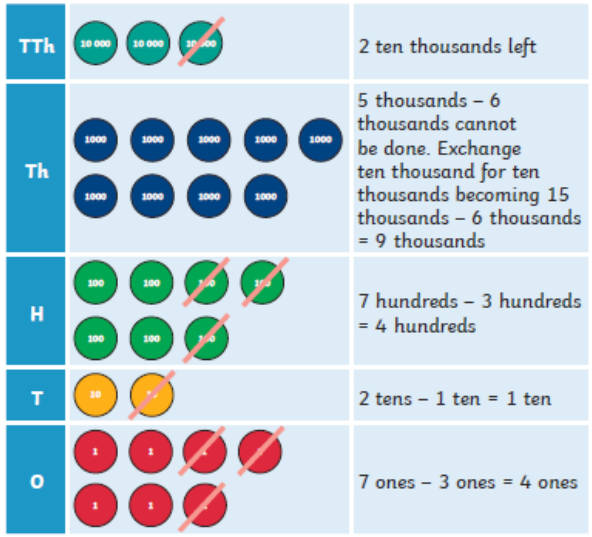


Column Method

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.

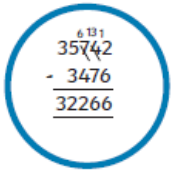
Subtraction

Place Value Grid: 35 727 – 6313 = 29 414



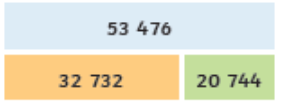
Column Method

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.



Inverse Operations

Use the inverse to check:



To check 53 476 – 32 732 = 20 744 use 32 732 + 20 744 = 53 476

Start with a number, subtract 409 and double. I end with 6264.

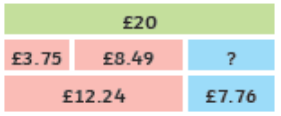
To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132. 3132 + 409 = 3541. The starting number was 3541.

Multistep Problems

Using a Bar Model

The sum of two numbers is 25 567.
The difference is 1875.

Subtract 1875 from 25 567 = 23 692.
Halve 23 692 to find smaller number = 11 846.
Add 1875 to find larger number = 13 721.



£20 is used to buy 2 books costing £3.75 and £8.49.

How much change is given?

£3.75 + £8.49 = £12.24
£20.00 - £12.24 = £7.76

Estimate and Approximate

Rounding to Estimate

41 635 + 7386 = 49 021

Round to ten:

41 630 + 7380 = 49 010
41 630 + 7390 = 49 020
41 640 + 7390 = 49 030

Rounding is not as accurate when both numbers are rounded up. A better estimate comes from "rounding" one down and one up.

Estimating on a Number Line

The arrow is about $\frac{3}{4}$ of the way across the line so it is 40 000.