Knowledge Organiser

| Year Group | Subject | Topic |
| :---: | :---: | :---: |
| 4 | Maths | Addition and subtraction <br> Measurement (Area) <br> Multiplication and division |

## The Big Picture

Children will be working on addition and subtraction, area and multiplication and division in autumn 2. In Year 3, children explored adding and subtracting 1s, 10 s and 100s to/from any 3-digit number, including using a mental strategy when crossing a multiple of 10 or 100 In this small step, children recap this learning and extend their understanding to dealing with 4-digit numbers and adding and subtracting multiples of 1,000 . The focus is on mental rather than written strategies.
In year 4, children encounter area for the first time. They learn that area is the amount of space taken up by a two-dimensional shape or surface. They explore different ways of working out the area of a shape, and it is important that children recognise that some ways are better than others.
In year 3, children explored the link between counting in 3 s and the 3 times-table to understand multiples of 3 in a range of contexts. They use familiar representations such as number tracks and hundred squares to represent different multiples. They explore how to recognise if a number is a by finding its digit sum: if the sum of the digits of a number is a multiple, then the number itself is also a multiple.


| Checking strategies$8,512-1,605=6,907$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 8,512 |  |  |  |  |
| 6,907 | 1,60 |  |  |  |
| $6,907+1,605=8,512$ | Th | H | T | 0 |
| $\underline{1,605}+6,907=8,512$ | 6 | q | 0 | 7 |
| + | 1 | 6 | 0 | 5 |
|  | 8 | 5 | 1 | 2 |
|  | 1 |  | I |  |

## Estumating answers





Useplace value to multiply and divide mentally




## Area and perimeter

Area is the amount of space inside a 2D shape.
Perimeter is the total distance around the outside of a 2D shape.

converting units of measurement

| km 1 kilometre $=1000$ metres <br> m 1 metre $=100$ centimetres <br> cm 1 centimetre $=10$ millimetres <br> mm $.$ l |
| :---: | :--- |

## Measuring area

We can count squares to find the area of $a$ rectilinear shape.


Measuringiperimeter


