Year 2 Maths Knowledge Organiser

## Addition and subtraction facts

| + | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0+0 | 0+1 | 0+2 | 0+3 | 0+4 | 0+5 | 0+6 | 0+7 | 0+8 | 0+9 | 0+10 |
| 1 | 1+0 | 1+1 | 1+2 | 1+3 | 1+4 | 1+5 | 1+6 | 1+7 | 1+8 | 1+9 | 1+10 |
| 2 | 2+0 | 2+1 | 2+2 | 2+3 | 2+4 | 2+5 | 2+6 | 2+7 | 2+8 | 2+9 | 2+10 |
| 3 | 3+0 | 3+1 | 3+2 | 3+3 | 3+4 | 3+5 | 3+6 | 3+7 | 3+8 | 3+9 | 3+10 |
| 4 | 4+0 | 4+1 | 4+2 | 4+3 | 4+4 | 4+5 | 4+6 | 4+7 | 4+8 | 4+9 | 4+10 |
| 5 | 5+0 | 5+1 | 5+2 | 5+3 | 5+4 | 5+5 | 5+6 | 5+7 | 5+8 | 5+9 | 5+10 |
| 6 | 6+0 | 6+1 | 6+2 | 6+3 | 6+4 | 6+5 | 6+6 | 6+7 | 6+8 | 6+9 | 6+10 |
| 7 | 7+0 | 7+1 | 7+2 | 7+3 | 7+4 | 7+5 | 7+6 | 7+7 | 7+8 | 7+9 | 7+10 |
| 8 | 8+0 | 8+1 | 8+2 | 8+3 | 8+4 | 8+5 | 8+6 | 8+7 | 8+8 | 8+9 | 8+10 |
| 9 | 9+0 | 9+1 | 9+2 | 9+3 | 9+4 | 9+5 | 9+6 | 9+7 | 9+8 | 9+9 | 9+10 |
| 10 | 10+0 | 10+1 | 10+2 | 10+3 | 10+4 | 10+5 | 10+6 | 10+7 | 10+8 | 10+9 | 10+10 |

Y1 facts

Y2 facts

Adding 1

Adding 2

Bonds to 10

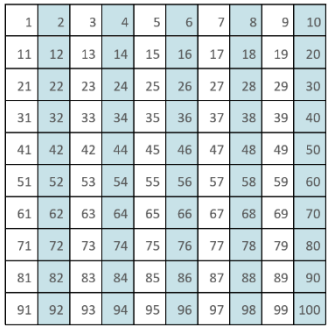
Adding 0

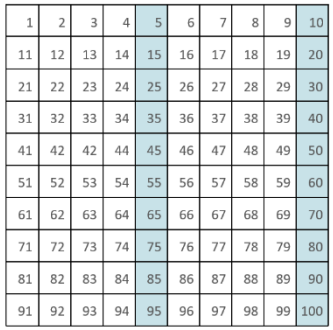
Doubles

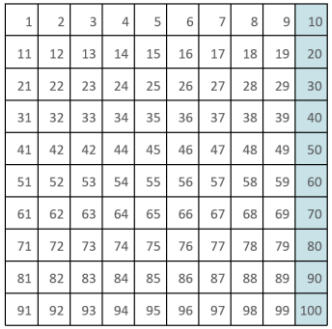
Near doubles

*Grids taken from ncetm.org.uk*

## Counting in 2s, 5s and 10s

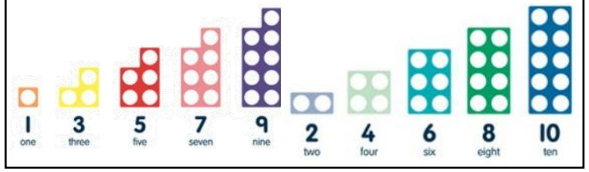




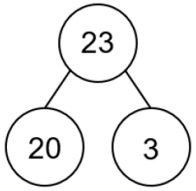


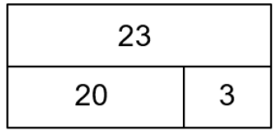
## Recognise odd and even numbers

odd even




## Part whole model showing related facts




20 + 3 = 23 23 – 20 = 3

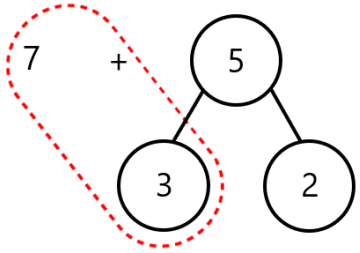
3 + 20 = 23 23 – 3 = 20

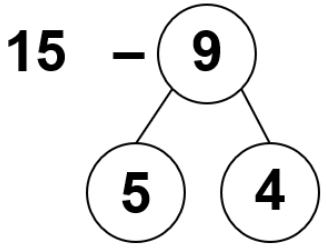
23 = 20 + 3 3 = 23 – 20

23 = 3 + 20 20 = 23 – 3

## Adding and subtracting across 10, using number bonds

7 + 5 is the same as 7 + 3 = 10 + 2 = 12




15 – 9 is the same as 15 – 5 = 10 – 4 = 6

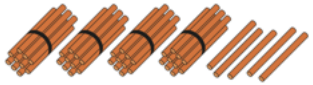
## Recognise the place value in a 2-digit number

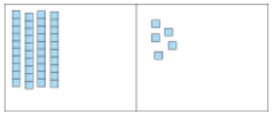
Forty-five is 4 tens and 5 ones

Forty-five is also 45 ones

forty-five is also 3 tens and 15 ones

All the images below represent 45







## Arrays

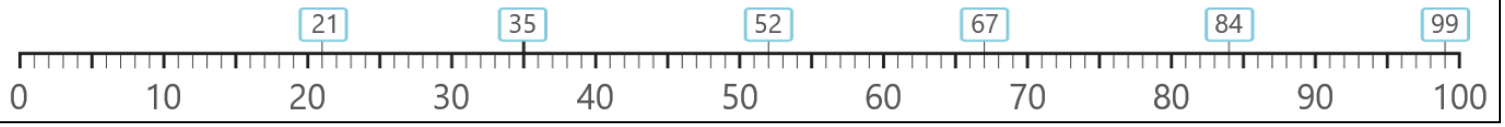
3 x 5 = 15 5 x 3 = 15

15 ÷ 3 = 5 15 ÷ 5 = 3

3 + 3 + 3 + 3 + 3 = 15

5 + 5 + 5 = 15

## Identifying 2-digit numbers on a number line



Year 2 Maths Knowledge Organiser

## Fractions

| | | | |
|---|---|---|---|
| $\frac{1}{2}$ | | $\frac{1}{2}$ | |
| $\frac{1}{3}$ | $\frac{1}{3}$ | $\frac{1}{3}$ | |
| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

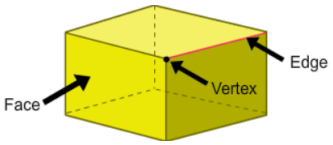
*A half is 1 part out of 2 equal pieces*

*A quarter is 1 out of 4 equal pieces*

*Three quarters is 3 out of 4 equal pieces*

*A third is 1 out of 3 equal pieces*

## Shape



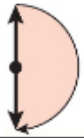
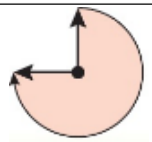
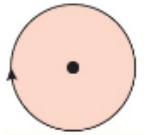

*A pentagon has:*

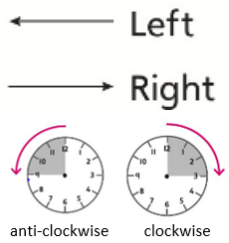
5 straight sides

5 vertices

*Line of symmetry*

## Position and direction

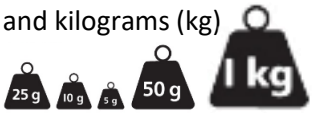
| Quarter turn | Half turn | Three-quarter turn | Whole turn |
|---|---|---|---|
|  |  |  |  |



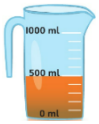

## Measure

Length and height can be measured in centimetres or metres. **100cm = 1m**


Mass can be measured in grams (g) and kilograms (kg)




Volume can be measured in millilitres (ml) and litres (l)


A thermometer is used to measure temperature


## Time

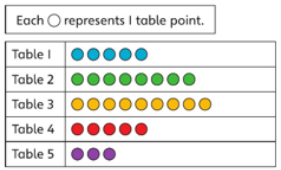
| | | |
|---|---|---|
| O'clock | Three o'clock  | The minute hand points to the 12 and the hour hand point to the hour. |
| Quarter past | Quarter past three  | The minute hand points to the 3 (15 minutes past) and the hour hand points past the hour. |
| Half past | Half past three  | The minute hand points to the 6 (30 minutes past) and the hour hand points past the hour. |
| Quarter to | Quarter to four  | The minute hand points to the nine (45 minutes past) and the hour hand points near the next hour. |

## Statistics

Tally charts

| Choice | Tally | Number |
|---|---|---|
|  | 𝍸 𝍸 \|\|\| | 13 |
|  | 𝍸 𝍸 | 10 |
|  | 𝍸 𝍸 \|\|\|\| | 14 |

Pictograms




Block diagrams