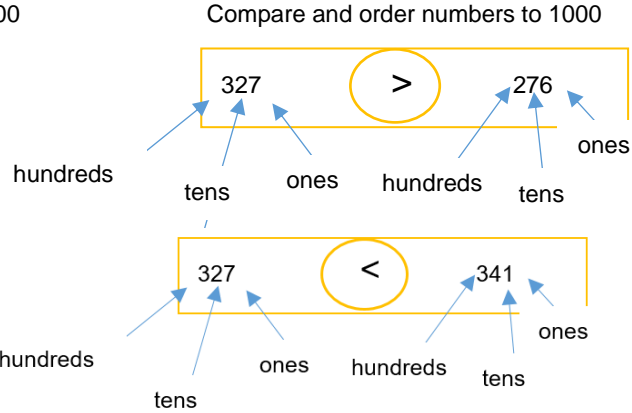
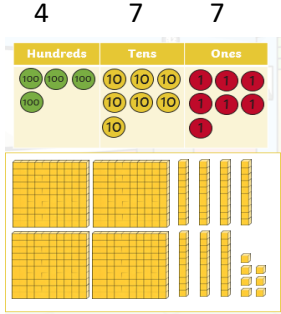


# Year 3 – Maths Subject Knowledge

## Place Value

### Counting

Read, write and represent numbers to 1000 in numerals and words



Multiples 4	4	8	12	16	20	24	28	32	36	40	44	48
Multiples 8	8	16	24	32	40	48	56	64	72	80	88	96

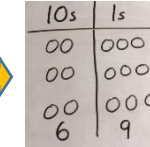
## Multiplication and Division

### Multiplication

Practical method with counters  
 $3 \times 23 = ?$



Pictorial representation

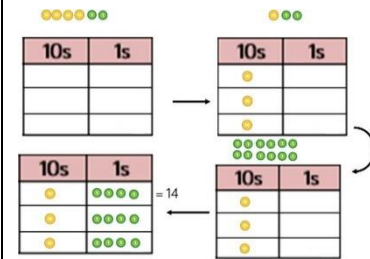


$$3 \times 20 = 60$$

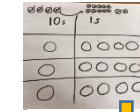
$$\begin{array}{r} 20 \ 3 \\ \times \ 3 \\ \hline 60 \\ 90 \\ \hline 69 \end{array}$$

### Division

Sharing with counters



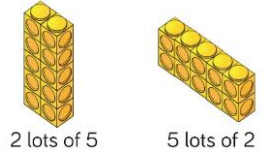
Pictorial representation



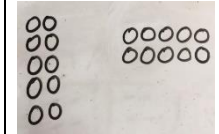
$$\begin{array}{l} 42 \div 3 \\ 42 = 30 + 12 \\ 30 \div 3 = 10 \\ 12 \div 3 = 4 \\ 10 + 4 = 14 \end{array}$$

### Using Arrays

Practical



Pictorial



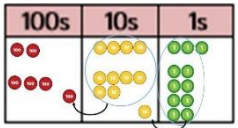
Abstract

$$\begin{array}{l} 10 = 2 \times 5 \\ 5 \times 2 = 10 \\ 2 + 2 + 2 + 2 + 2 = 10 \\ 10 = 5 + 5 \end{array}$$

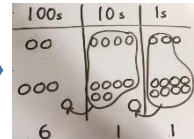
## Addition and Subtraction

### Addition

Practical use of place value counters



Pictorial place value chart

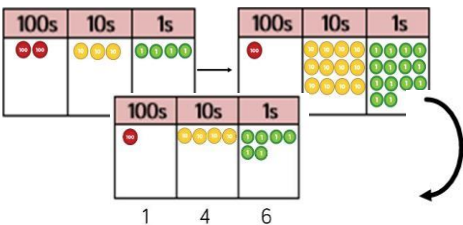


Abstract method

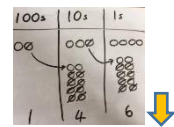
$$\begin{array}{r} 243 \\ +368 \\ \hline 611 \\ \hline \end{array}$$

### Subtraction

Practical use of counters  
 $234 - 88 = ?$



Pictorial place value chart

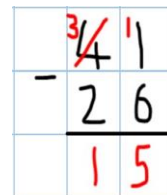
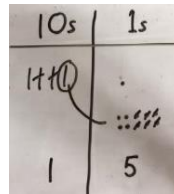


Abstract method

$$\begin{array}{r} 234 \\ - 88 \\ \hline 146 \end{array}$$

### Column method and exchanging

$$41 - 26 = ?$$



## Fractions

### Adding Fractions



Add the numerators together

Denominator remains unchanged

$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$

### Subtracting Fraction



### Counting in tenths



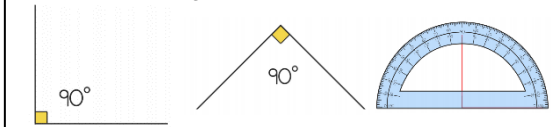
## Measurement and Geometry

### Shapes

Measure perimeter of 2D shapes



Identify right angles



### Time

Read 24-hour clock



### Money

Add and subtract to give change

