

# Yr 6 Number and Calculation Knowledge Organiser

## National Curriculum Aims

- multiply multi-digit numbers up to 4 digits by a two-digit number
- divide numbers up to 4 digits by a two-digit whole number using both long and short division.
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

## Key Vocabulary

Calculate	To work out the value of something.
Sign	Using a mathematical symbol eg + / -
Operation	An action which when applied to one or more values gives an output value.
Inverse	The opposite eg the inverse of addition is subtraction.
Addition	The mathematical process of putting things together.
Subtraction	The mathematical process which tells us the difference between two values.
Multiplicand	A quantity which is to be multiplied by another.
Dividend	The number / value being divided.
Remainder	The amount left over when a number cannot be divided exactly.
Quotient	The result obtained by dividing one number by another.



## Home Learning

- Practice times tables with your child on the way to and from school.
- When cooking it would be useful to add and subtract ingredient weights.

## Core Knowledge and Representations

### Subtraction

$$932 - 457 = 475$$

$$\begin{array}{r} \text{H T U} \\ 9 \ 3 \ 2 \\ - 4 \ 5 \ 7 \\ \hline 4 \ 7 \ 5 \end{array}$$

### Addition

$$\begin{array}{r} \text{H T U} \\ 7 \ 8 \ 9 \\ + 6 \ 4 \ 2 \\ \hline 1 \ 4 \ 3 \ 1 \\ \phantom{1} \ 1 \end{array}$$

### Multiplication

$$342 \times 7 = 2394$$

$$\begin{array}{r} \text{Th H T U} \\ 3 \ 4 \ 2 \\ \times \phantom{0} \ 7 \\ \hline 2 \ 3 \ 9 \ 4 \\ \phantom{2} \ 2 \ 1 \end{array}$$

$$24 \times 16 = 384$$

$$\begin{array}{r} \text{H T U} \\ \phantom{2} \ 2 \ 4 \\ \times \phantom{0} \ 1 \ 6 \\ \hline 2 \ 4 \ 0 \\ 1 \ 4 \ 4 \\ \hline 3 \ 8 \ 4 \end{array}$$

### Division

$$\begin{array}{r} \text{H T U} \\ 15 \overline{) 432} \\ \underline{300} \\ 132 \\ \underline{120} \\ 12 \end{array}$$

$$\begin{array}{r} \text{H T U} \\ 5 \overline{) 432} \\ \underline{3} \\ 13 \end{array}$$

## Core Knowledge and Representations

### BIDMAS

B Brackets  
I Indices  
D Division  
M Multiplication  
A Addition  
S Subtraction