MATHS- ADDITION AND SUBTRACTION

YEAR 6

RECAP

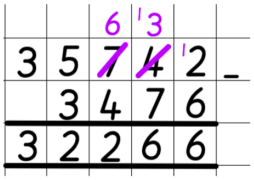
- Add and subtract numbers more than 4 digits using the formal written methods of column addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction multi-step problems in contexts.

CRUCIAL KNOWLEDGE

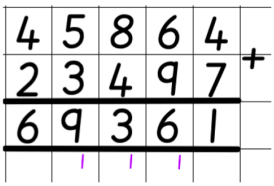
- Add and subtract numbers mentally with increasing large numbers.
- Add and subtract whole numbers with more than 4 digits including using formal written methods (column addition and subtraction)
- Use rounding to check answers to calculations and determine, in the context of the problem, levels of accuracy.
- Inverse operations and missing numbers.
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Column Method

Starting with the smallest place value column, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as needed.

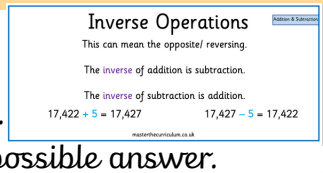


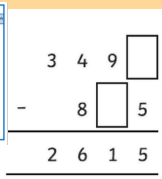
Starting with the smallest place value column, add each column in turn. Exchange tens, hundreds and/or thousands as needed

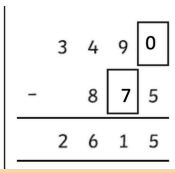


EXTENDED KNOWLEDGE

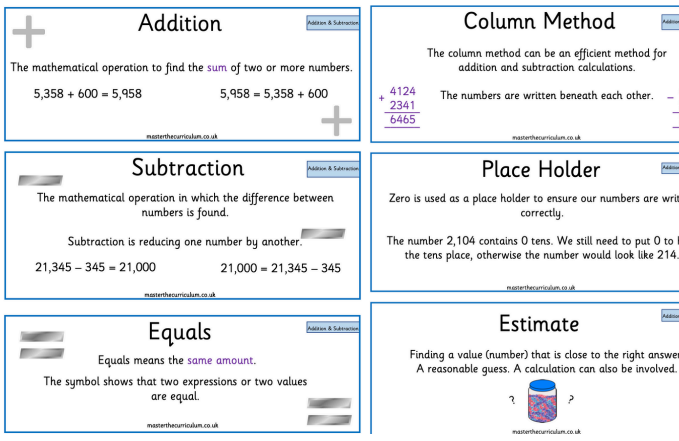
- Use inverse operations to solve a range of problems.
- Reasoning problems where there is more than one possible answer.

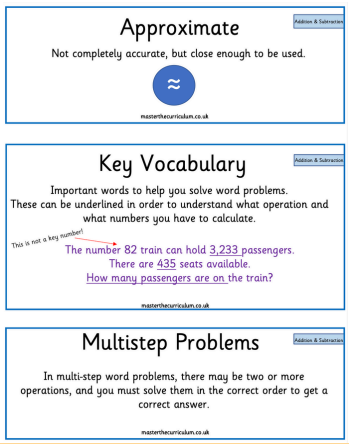


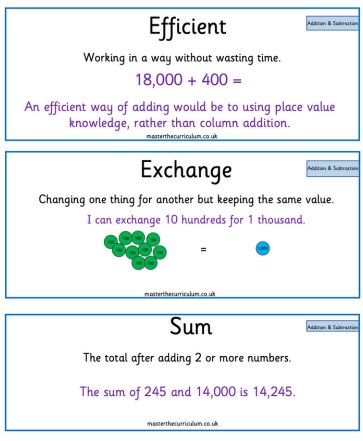




KEY VOCABULARY







B	Brackets	10 × (4 + 2) = 10 × 6 = 60
O	Order	5 + 2^2 = 5 + 4 = 9
D	Division	10 + 6 ÷ 2 = 10 + 3 = 13
M	Multiplication	10 - 4 × 2 = 10 - 8 = 2
A	Addition	10 × 4 + 7 = 40 + 7 = 47
S	Subtraction	10 ÷ 2 - 3 = 5 - 3 = 2

Sentence Stems

It can't be... because...
I noticed that...
It must be ... because...
If...then...
This is different because...
This is the same because...
This is true here because...
I already know that... so...

Bar models

Using **bar models** to **compare addition** calculations can help to find the **missing number**.

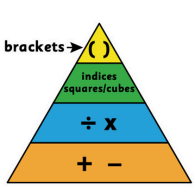
667 + 253 = 467 + ☐

667	253
467	453

The **first part** is **200 less**, so the **second part** must be **200 more**.

Order of operations

Calculations must be carried out in a certain order to get to the correct answer. These two diagrams are helpful when remembering that order.



Brackets ( )
Indices 3^2
Division ÷
Multiplication x
Addition +
Subtraction -