



Key Vocabulary

add

total

plus

sum

more

altogether

difference

subtract

less

minus

take away

column addition

column subtraction

exchange

estimate

inverse operation

solve problems

number facts

place value

Learning Objective

- add and subtract numbers mentally, including:**
a three-digit number and 1s
a three-digit number and 10s
a three-digit number and 100s
- add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction**
- estimate the answer to a calculation and use inverse operations to check answers**
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction**

Small Steps and Learning Objective links – *not necessarily a lesson*

- Apply number bonds within 10 (LO1)
- Add and subtract 1s (LO1)
- Add and subtract 10s (LO1)
- Add and subtract 100s (LO1)
- Spot the pattern (LO1)
- Add 1s across a 10 (LO1)
- Add 10s across a 100 (LO1)
- Subtract 1s across a 10 (LO1)
- Subtract 10s across a 100 (LO1)
- Make connections (LO1)
- Add two numbers (no exchange) (LO2 &4)
- Subtract two numbers (no exchange) (LO 2 &4)
- Add two numbers (across a 10) (LO 2 &4)
- Add two numbers (across a 100) (LO 2 &4)
- Subtract two numbers (across a 10) (LO 2 &4)
- Subtract two numbers (across a 100) (LO 2 &4)
- Add 2-digit and 3-digit numbers (LO 2 &4)
- Subtract a 2-digit number from a 3-digit number (LO 2 &4)
- Complements to 100 (LO 1)
- Estimate answers (LO 3)
- Inverse operations (LO 3)
- Make decisions (LO 4)

Unit Lesson Progression

Knowledge Harvest – must be marked – Gaps in prior knowledge must be addressed in lesson starters, morning work, assembly boosters.

Unit lessons (depends on children’s understating & teacher discretion)

A typical lesson structure:

- *Fluent in five*
- *Timetable activity*
- *Recap previous day/prior learning linked to today's task/FIT...*
 - *Intended learning (today's learning)*
- *Common mis-conception (most will be picked up in LIVE marking)*
 - *Task – (four-part lesson)*
 - *Teacher Deployment*
 - *Test base lesson*

End of unit knowledge harvest followed by AfL.

Suggested useful resources

Practice & secure it

- Class room secrets – varied fluency
- WRM scheme of learning
- Target Your Maths

Deepen it & Explain it

- TestBase
- Class room secrets –reasoning and problem solving
- WRM scheme of learning

Previous learning (year 2)	Intended learning (year 3)	Future learning (year 4)
<p>solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods <p>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p>add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ul style="list-style-type: none"> • a two-digit number and 1s • a two-digit number and 10s • 2 two-digit numbers • adding 3 one-digit numbers <p>show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot</p> <p>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</p>	<p>add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> • a three-digit number and 1s • a three-digit number and 10s • a three-digit number and 100s <p>add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</p> <p>estimate the answer to a calculation and use inverse operations to check answers</p> <p>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>	<p>add and subtract numbers with <u>up to 4 digits</u> using the formal written methods of columnar addition and subtraction where appropriate</p> <p>estimate and <u>use inverse operations</u> to check answers to a calculation</p> <p>solve addition and subtraction <u>two-step problems</u> in contexts, deciding which operations and methods to use and why</p>