

Additive reasoning 2.5	Length of unit: 3 weeks	Week beg:	Year: 2	Teacher:
<p>Success criteria</p> <p>Pupils can represent, explain and record the relationship between addition and subtraction. They can represent and solve addition and subtraction problems in different contexts, appropriately choosing and using number facts, understanding of place value and counting.</p>	<p>Prior Learning:</p> <p>Check that children can already</p> <ul style="list-style-type: none"> • count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • given a number, identify one more and one less • read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ • recognise and use language relating to dates, including days of the week, weeks, months and years • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] <p style="text-align: center;"><input type="checkbox"/></p>		<p>Resources</p> <p>Maths vocabulary book</p> <p>Using and Applying in every maths lesson</p> <p>Assessment through guided maths</p> <p>Think Maths!</p> <p>Pitch and Expectations Y2</p> <p>Models and Images</p> <p>Overcoming Barriers to learning Level 1 to 2/Level 2 to 3</p> <p>Securing Level 1/Level 2/Level 3</p>	
<p>Guidance</p> <p>Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using $3 + 7 = 10$, $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$, $100 - 70 = 30$ and $70 = 100 - 30$. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (e.g. $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$). This establishes commutativity and associativity of addition.</p>				

Learning objectives

Pupils should be taught to:

Number and place value

- count in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- use place value and number facts to solve problems

Addition and subtraction

- solve problems with addition and subtraction:
 - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
 - applying their increasing knowledge of mental methods and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Measurement

- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- recognise and use the symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins to equal the same amounts of money

Statistics

- ask and answer questions about totaling and compare categorical data.

Pupil outcomes:

I can choose equipment to show and explain the relationship between 3, 7 and 10, record at least four related number sentences (eg $3 + 7 = 10$, $10 = 7 + 3$, $10 - 3 = 7$...) and use this to explain the relationship between 30, 70 and 100.

I can explain how knowing $3 + 2 = 5$ helps me to solve $50p - 20p$.