

Unit 10
Addition and subtraction

Five daily lessons

Merseyside Consultants'
Cluster Group

Year 1
Autumn term

Unit Objectives

Year 1

Understand the operation of addition and of subtraction (as difference) and use the related vocabulary

Page 24 - 28

Use patterns of similar calculations

Page 34

This Unit Plan is designed to guide your teaching.

You will need to adapt it to meet the needs of your class.

Resources needed to teach this unit:

- Coloured shapes
- Whiteboards
- Number Fans
- Number lines – individual and large

Year R

Link Objectives

Year 2

Find *one more than* (up to 5 objects)

Find *one more* or *one less* than a number up to 9

Understand the operations of addition and subtraction and use and begin to read the related vocabulary

Use patterns of similar calculations

Find small difference, counting up

(Key objectives in bold)

Planning sheet	Day One	Unit 10 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
		<p>To understand the operation of addition and related vocabulary</p> <p>To recognise addition can be done in any order</p> <p>VOCABULARY More Add total altogether equals sign</p> <p>RESOURCES Coloured shapes – 1 per child (blue squares, red triangles, yellow rectangles, green circles, a different number of each)</p>	<p>Give all children a coloured shape Ask all blue squares to stand up</p> <p>Q How many blue squares are there?</p> <p>Count blue squares together Ask all red triangles to stand up</p> <p>Q How many red triangles are there?</p> <p>Count red triangles together Ask red triangles and blue squares to stand together in a line</p> <p>Q How many shapes altogether?</p> <p>Model calculation on board $3 + 4 = 7$ (3 add 4 equals 7)</p> <p>Q How many more triangles than squares?</p> <p>Pair a child with a blue square with a child with a red triangle to show there is one red triangle left over, so there is 1 more red triangle. Children sit down Ask all red triangles to stand – establish there are 4 Ask all blue squares to stand – establish there are 3 Model calculation again $4 + 3 = 7$</p> <p>Q What do you notice about these 2 calculations?</p> <p>Using the coloured shapes, children investigate if you can always carry out addition in any order.</p>	<p>Write on board $5 + 2 = 7$</p> <p>Q What can you tell me about $2 + 5$?</p> <p>Q If $25 + 27 = 52$ what does $27 + 25 =$?</p> <p>Discuss children ideas and establish that addition can be carried out in any order</p> <p>By the end of the lesson children should be able to:</p> <p>(Refer to supplement of examples, section 5, page)</p>

Planning sheet	Day Two	Unit 10 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
		<p>To understand the operation of addition and the related vocabulary</p> <p>To recognise addition can be carried out in any order</p> <p>To begin to record simple number sentences using + and = signs</p> <p>To recognise use of symbols to stand for unknown numbers</p> <p>VOCABULARY multiple of count on (from, to) count back (from, to)</p> <p>RESOURCES Class number line Coloured shapes as Day 1</p>	<p>Give out coloured shapes Ask children to hold up yellow rectangles Count together and record number on board Repeat with green circles and record how many on board Add together and count to find answer $2 + 5 = 7$</p> <p>Instead of actually counting the shapes to find the total, we will now use a different method, a number line Model on number line how to calculate $5 + 2 = 7$</p> <p>Q What if we had $2 + 5$ what would the answer be?</p> <p>Show using number line</p> <p>Q Is it easier to do $5 + 2$ or $2 + 5$?</p> <p>Encourage children to put largest number first Set the following question: ' I have 3 cakes but 6 people are coming for tea and everyone wants a cake '</p> <p>Q How many more cakes do I need?</p> <p>Use number line to show answer, start at 3 jump to 6 and count difference between</p> <p>Q How could we write this as a number sentence?</p> <p>Agree it would be $3 + ? = 6$</p> <p>Children make up own addition problems/calculations and record using pictures and number line to show answer.</p>	<p>?? Share children's own problems and solve as a class, showing answer as number sentence and using a number line.</p> <p>By the end of the lesson the children should be able to:</p> <p>(Refer to supplement of examples, section 5, page)</p>

Planning sheet	Day Three	Unit 10 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
		<p>To understand the operation of subtraction (as difference) and the related vocabulary</p> <p>VOCABULARY difference</p> <p>RESOURCES Coloured shapes as Day 1</p>	<p>Give all children a coloured shape Ask all blue squares to stand up</p> <p>Q How many blue squares are there?</p> <p>Count blue squares and record number on board</p> <p>Ask all yellow rectangles to stand up</p> <p>Q How many yellow rectangles are there?</p> <p>Count and record on board</p> <p>Q How many more blue squares are there?</p> <p>Record answer on board, e.g. 6 3 3</p> <p>Q Can we put these numbers into a number sentence?</p> <p>Children record on whiteboards $6 - 3 = 3$</p> <p>Draw 0 – 6 number line on board Point to 6 and explain this is how many blue squares there are Point to 3 and explain this is how many yellow rectangles there are</p> <p>Q What is the difference between the number of blue squares and yellow rectangles?</p> <p>Children discuss in pairs Show on number line the difference is 3, because you count on 3 to reach 6, so there are 3 more blue squares than yellow rectangles Repeat this using red triangles and green circles to find the difference. Children find the difference between given numbers using a number line to count on</p>	<p>?? Pose the following question: ' In the school car park there are 5 blue cars and 9 red cars. How many more red cars are there? '</p> <p>Q How would you solve this problem?</p> <p>??Children work in pairs to discuss and record a method/answer on whiteboards</p> <p>??Discuss different methods of recording</p> <p>By the end of the lesson children should be able to:</p> <p>??</p> <p>(Refer to supplement of examples, section 5, page)</p>

Planning sheet	Day Four	Unit 10 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
		<p>To understand the operation of subtraction (as difference) and the related vocabulary</p> <p>RESOURCES Large 1-9 digit cards Small 1-9 digit cards</p> <p>VOCABULARY difference</p>	<p>Using large 1 – 9 digit cards ask children to pick a number between 1 and 5, e.g. 2</p> <p>Q Can you pick two digit cards that have a difference of 2?</p> <p>Children pick from own set of digit cards two numbers with a difference of 2 and show Collect various responses by children coming to front and holding up large digit cards, e.g. 1 and 3, 2 and 4, 3 and 5, 4 and 6, etc</p> <p>Q Have we got all the possible pairs? How do we know?</p> <p>Model how to record systematically to show all possible pairs with a difference of 2 Repeat with another difference, e.g. 4, and collect responses, recording systematically Children use own digit cards to find pairs of numbers with differences of 1, 3, 5, 6 depending on ability</p>	<p>Discuss different pairs of numbers with a difference of 6 Record on board</p> <p>Q Do we know anymore numbers with a difference of 6? Q Could we find all the numbers with a difference of 6?</p> <p>Children should realise there are many more numbers with a difference of 6 which could be found by picking a number and counting on 6 to give the other number.</p> <p>By the end of the lesson children should be able to:</p> <p>(Refer to supplement of examples, section 5, page)</p>

