

Column addition (with carrying) lesson plan

Subject: Maths	Lesson Title: Column addition (with carrying)
Date:	Time Span:
Year Group: Year 2	Group Size: 30

Desired Learning Outcomes

To be able to add in columns (with carrying)

Key Language:

Column, horizontal, vertical, units, tens, hundreds, thousands, tenths and carry

Use of ICT:

Smartboard for introduction

Assessment (Make reference to each section of the lesson)

Intro – Level of work based on ongoing assessment

Main – Mark children's work as they complete it. Sit with any children who are struggling, bringing them back to the carpet if necessary. If still unsure by end of lesson sit with TA during plenary.

Plenary – Can children explain their working out to a partner, using the correct terminology e.g. column, units, tens etc?

Use of Other Adults

TA to monitor progress of children once they begin working

TA to sit and continue working with children (of any ability) who struggled in plenary

Anticipated Misconceptions/Difficulties

Children starting on the right

Children not putting numbers in the correct columns e.g. putting units under tens

Children not putting only 1 number in each square and thus getting columns confused

Children forgetting to write the + sign to show the operation being calculated

Children forgetting to write the 1 when they carry

Resources

Tens sticks and units cubes

Squared paper for plenary

Enlarged copy / copies for tables of final slide

Introduction	Time																																								
<p>Go through PowerPoint with the following:</p> <ul style="list-style-type: none"> • Revise what column and vertical mean • Revise 4 key teaching points (see below) • Explanation of how when the units column is full i.e. has 10 units in it, these 10 units need to move next door to the tens and become 1 ten, with several examples • Go through examples of how to add 1-digit numbers. Lower ability start work • Go through examples of how to add 2-digit and 3-digit numbers e.g. <table border="1" data-bbox="220 472 651 645"> <tr> <td>1)</td><td></td><td>4</td><td>7</td><td></td><td>2)</td><td></td><td>2</td><td>3</td><td>9</td> </tr> <tr> <td></td><td>+</td><td>2</td><td>5</td><td></td><td></td><td>+</td><td></td><td>5</td><td>2</td> </tr> <tr> <td></td><td></td><td>7</td><td>2</td><td></td><td></td><td></td><td>2</td><td>9</td><td>1</td> </tr> <tr> <td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td> </tr> </table> <p>(With every example reinforce four main teaching points:</p> <ul style="list-style-type: none"> ➤ Start on the right-hand side ➤ Put only 1 number in a square ➤ Write the + ➤ Put units under units and tens under tens and so on ➤ Putting the 1 you carry in the correct column <ul style="list-style-type: none"> • Middle and higher ability start work • Model for G+T how to use column addition with number to 1 decimal place, including .0 where it is helpful e.g. 5 + 1.4 can be easier as 5.0 + 1. • Final slide with reminders of the 5 key points above. Print out and enlarge / leave copies on tables of this final slide <p>Remind children to leave space between calculations and not squash them together Give children a copy of the success criteria to stick at the top of their page</p>	1)		4	7		2)		2	3	9		+	2	5			+		5	2			7	2				2	9	1			1					1			<p>15 mins</p>
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<p>Main (including differentiated tasks)</p> <p>Children who were insecure on column addition without carrying to repeat previous lesson on column addition without carrying</p> <p>(At regular intervals have children stop and check their work against the success criteria)</p> <p>Lower ability – add 1-digit numbers and multiples of 10 (children who work slowly to work on sheet) Give unit square and tens sticks if needed</p> <p>Middle ability – add 2-digit numbers (with carrying)</p> <p>Higher ability – add 3-digit numbers (with carrying)</p> <p>Extension – add 4-digit numbers and numbers to 1 decimal place (with carrying)</p>	<p>20 mins</p>																																								
<p>Plenary</p> <p>Have children self-asses their work against the success criteria In ability partners give children 2 questions per pair, one for each partner Children need to talk to their partner, explaining what they are doing e.g. I will put the 3 under the other 3 because they are both units, then I draw my equals line with a ruler and use my fingers to calculate the answer Children swap over and partner who spoke first now listens</p>	<p>10 mins</p>																																								