

Introducing column subtraction lesson plan

Subject: Maths	Lesson Title: Introducing column subtraction
Date:	Time Span:
Year Group: Year 2	Group Size: 30

Desired Learning Outcomes

To be able to subtract in columns (without borrowing)

Key Language:

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

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 (this will be problematic when borrowing is introduced)

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

Resources

Tens sticks

Squared paper for plenary

Enlarged copy / copies for tables of final slide

Introduction

Time

Go through PowerPoint with the following:

- Explanation of the difference between horizontal / vertical and what a column is
- Subtracting 54 - 32 on a number line (emphasise how long it takes)
- Subtracting 54 - 32 on a hundred square (emphasise how long it takes)
- Subtracting 54 - 32 in columns (emphasise how this is quicker)
- Go through examples of how to set out subtracting single digits and multiples of 10. Explain how horizontal line is like the = sign. Lower ability start work
- Subtracting 2-digit and 3-digit numbers e.g.

1)		4	0	+	8		2)		2	0	0	+	8	0	+	4
	-	2	0	+	5			-				+	5	0	+	2
		2	0	+	3				2	0	0	+	3	0	+	2

15 mins

(With every example reinforce four main teaching points:

- 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
- Middle and higher ability start work
- Model for G+T how to use column subtraction with number to 1 decimal place
- Final slide with reminders of the 4 key points above. Print out and enlarge / leave copies on tables of this final slide

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

Main (including differentiated tasks)

(At regular intervals have children stop and check their work against the success criteria)

Lower ability – subtract 1-digit numbers and multiples of 10 (children who work slowly to work on sheet) Give tens sticks if needed

Middle ability – subtract 2-digit numbers (no borrowing)

Higher ability – subtract 3-digit numbers (no borrowing)

Extension – subtract 4-digit numbers and numbers to 1 decimal place (no borrowing)

20 mins

Plenary

Have children self-asses their work against the success criteria
In ability partners give children 4 questions per pair, two 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

10 mins