Column subtraction (with borrowing) lesson plan

Subject: Maths	**Lesson Title:** Column subtraction (with borrowing)
Date:	**Time Span:**
Year Group: Year 2	**Group Size:** 30

Desired Learning Outcomes

To be able to subtract in columns (with borrowing)

Key Language: Column, horizontal, vertical, units, tens, hundreds, thousands, tenths and take	**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 one they borrow / take and / or cross out the number that they took the one from and write the new number above it

Resources
Tens sticks and units cubes
Squared paper for plenary
Enlarged copy / copies for tables of final slide

Introduction	Time

Go through PowerPoint with the following:
• Revise what column and vertical mean
• Revise 4 key teaching points (see below)
• Explanation of how when the bottom number in a column is larger than the top number, you need to take a ten / hundred / thousand from the next column to the left, with several examples
• Go through examples of how to subtract 1-digit numbers. Lower ability start work
• Go through examples of how to subtract 2-digit and 3-digit numbers e.g.
 	
1)   3   2)   7
    4¹2   2 8¹2
   – 2 5   – 5 7
    1 8   2 2 5
 	
  (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
  ➢ Cross out the number you take from and write its replacement above it
• Middle and higher ability start work
• Model for G+T how to use column subtraction with numbers to 1 decimal place
• Final slide with reminders of the 5 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
	15 mins

Main (including differentiated tasks) Children who were insecure on column subtraction without borrowing to repeat previous lesson on column subtraction without borrowing (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 unit square and tens sticks if needed Middle ability – subtract 2-digit numbers (with borrowing) Higher ability – subtract 3-digit numbers (with borrowing) Extension – subtract 4-digit numbers and numbers to 1 decimal place (with borrowing)	20 mins
Plenary 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	10 mins