

Sudoku lesson

- Aim:** To provide fun and meaningful practice for modals of prediction using a SuDoku puzzle.
- Skills:** Speaking and listening, writing numerals
- Level:** Pre-intermediate to advanced
- Resources:** Copy of puzzle on OHT (optional), copies of puzzle for students
- Time:** 60 minutes
- Language:** Could it be a....? It could be a / It can't be a / It must / has to be a

WARNING: This lesson share carries a health warning! SuDokus are highly addictive!

- 1 Make an OHT from the puzzle and display it on the wall. Explain that the object of the lesson is simple: to insert the numbers in the boxes so that each row, column and 3x3 box contains the digits 1 through to 9 exactly once.
- 2 Calm the fears of those who hate maths; it's all about logic!
- 3 Point to the central square in the central box, which is blank. Ask:
 - Could it be a 1? *Maybe*
 - Could it be a 2? *No, there's a 2 in the same row, to the right.*
 - Could it be a 3? *No, there's a 3 in the same row, to the left.*
 - Could it be a 4? *No, there's a 4 in the same box.*
 - Could it be a 5? *No, there's a 5 in the same box.*
 - Could it be a 6? *Maybe*
 - Could it be a 7? *No, there's a 7 in the same column, below.*
 - Could it be an 8? *No, there's an 8 in the same box.*
 - Could it be a 9? *No, there's a 9 in the same box.*
- 4 Write on the board (with the help of your students):

It could be a 1 or a 6
It can't be a 2,3,4,5,7,8 or 9
- 5 Write the numbers 1 / 6 small in the square.
- 6 Return to the puzzle and ask students to look at the other blank squares in the same box. In the top row there are two, but there's a 6 in the same row, to the right. Elicit: *Therefore... the 6 can't go in the top row.* Then look at the bottom row, there are two blanks again but this time there's a 6 in the same row, to the left. Elicit: *Therefore... the 6 can't go in the bottom row either.*
- 7 The more logically minded students will now have worked out, if not before, that the central square therefore *must be a 6!* Add this to your two sentences above. Elicit the function of each sentence and add that too:
 - It could be 1 or 6 possible
 - It can't be 2,3,4,5,7,8 or 9 impossible
 - It must/has to be a 6 certain

8 Now look at the box below. Ask the students if they can work out where the next 6 should go. Point to each square in turn, and elicit the following predictive modals from the students:

- *It can't go in the three blanks in a row because there's a 6 above.*
- *It can't go in the squares either side of the 4 because there's a 6 to the right.*
- *It can't go below the 4 because of the 6 just put in above.*
- *Therefore it must go in the top, left hand square.*

Write the number 6 in this square.

9 Look at the bottom left hand corner box and, still working as a whole class, repeat the activity. You don't have to do any more talking; just let the students call out their ideas and point to the three modals of prediction to encourage their use. *It must go in the bottom left hand square.*

10 Then go up to the top left hand box and again get students to work out that the 6 *must go in the middle square.*

11 Now hand out a copy of the puzzle for each pair of students. Get them to write in the 6s which have already been decided, and then ask them to work out the position, or possible position, of some of the other missing numbers using the modals of prediction. *This square could be a 7 or 9.*

12 Do put a time limit on this otherwise students will spend all their class time doing it. Make sure you have copies for each student to take home and finish for homework.

Want more puzzles? Try www.dailysudoku.co.uk. Start with the easy ones first. But you have been warned!