

I'm Thinking of a Number

Keep your students on their toes by applying common mathematical terminology to describe large numbers..there may be more than one answer!



Students will:

1. Form large numbers based on criteria set by the teacher
2. Apply an understanding of what thousands, hundreds, tens and ones are.
3. Differentiate between odd and even numbers
4. Apply an understanding of less than and greater than terminology
5. Recognise ranges of numbers

Materials:

- Place Value Twister

Preparation

Ensure that you cater for the level of your students - you may need to limit what cups they use based on their level of understanding. You can pre-prepare a simple question worksheet based off the examples provided to keep track of the questions you have asked. Alternatively, make the criteria up on the spot, or use the number generator and verify the student's answer after each question.

Lesson Procedure

1. The students start with the Twister in their hands or separated into cups in front of them.
2. Tell the student "I'm thinking of a number, do you know what it is?"
3. Make different statements that form a criteria for the student to deduce what number or number ranges fit within your description.
4. The student makes the number on the Twister. If there is more than one answer, ask the student to twist through the other possible solutions.

Examples:

- My number has three thousands, two hundreds, five tens and six ones.
- My number has at least two hundreds and is even.
- My number has more than four thousands, zero tens and is odd.
- My number starts with a seven, but is larger than eight hundred and is even.

Differentiation

- Vary the extent of cups a student uses.
- The lesson can be conducted with the teacher speaking or based off worksheets.
- Either with the whole class, or in small groups, have students take turns to 'think of a number' out loud for the rest of the class/group to make.
- Deliberately say the place value numbers out of order. E.g. I'm thinking of a number with five tens, three thousands, six ones and two hundreds.
- Be conscious of applying too many or too complicated criteria in one set. The student (and yourself) may lose track of what has been said!