

# PLACE VALUE ODD & EVEN



*What makes a number odd or even, is it the hundreds, tens or units place value? Throw in these simple variations into your place value games to reinforce the concept of odd and even numbers.*

## Students will:

1. Recognise that odd numbers end in 1,3,5,7,9
2. Recognise that even numbers end in 0,2,4,6,8
3. Realise that a number will remain odd or even when they change the thousands, hundreds or tens value.

## Materials:

- One or a combination of Place Value Twisters, Base 10 Blocks, 10 Sided Dice or Counters
- Place Value Number Generator (online)
- Recording sheet (optional - download online)

## Lesson Variation

This lesson variation can be used with any place value game or method that generates random numbers such as:

- Having the student randomly manipulate the Place Value Twister to create a number. This can be done to music or a cue for the student to start or stop twisting.
- Have the student roll 10 sided dice to create a number (see Place Value Dice game).
- The Place Value Number Generator - use the words only function for added variation.
- Playing 'Lucky Dip' games where the students select colour coded counters out of a bag to make a number or Base 10 block activities where students have recorded the numbers that they have made.
- The teacher making up numbers out loud to the students or pre-filling the worksheet.

## Teaching Points

1. During the activity have the student identify if the number they have is odd or even. Repeatedly ask the student "How do you know that the number is odd or even?".
2. Have the student partition the number into units, tens, hundreds etc and ask them to change the tens or hundreds and ask them again if the number is odd or even. This can be done with basic arithmetic such as add 200 to the number, add 10 to the number.
3. As above, have the student add single digit numbers to their number and ask them again if it is odd or even.
4. When using the Place Value Twister, have the students remove the units cup and have them make random numbers. All the numbers they will make will be even as their numbers will always end in zero! Add back in the Units cup to help the student recognise that the units value determines odd or even.
5. Similar to above, but using the 10 sided dice or colour coded counters without the red/units pieces to make numbers. After making the numbers using the dice or counters, reinforce the concept by having the student make their number on the Twisters.

## Differentiation

- Vary the magnitude of the number to suit the level of the student.