

# 101 and Out

**Big Idea:** Number and Place Value

**Suits:** Years 3-7

**Materials:**



A regular 6-sided dice

**Instructions:**

- Students draw up an empty table for recording, as shown
- Explain that the two columns are for showing TENS and ONES

Whole class game:

- The teacher rolls the dice, eg. 3
- Students write the digit into one of the cells of the top row of the grid
- The dice is rolled a second time and students add this digit into one of the cells of the second row.
- Continues until six rolls have been made and students have one digit in each row.
- Players now add a zero place holder in each of the empty ONES cells.
- Players add the 2-digit numbers

The player whose total score is nearest to 100 without going over 100 wins the game. (Scores of 101 and more are OUT)

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101 and out

3	
	5
	6
2	
1	
	4

101 and out

3	0
	5
	6
2	0
1	0
	4

total 75

## Teacher Notes

This warm up requires students to have a flexible understanding of 2-digit whole number place value. It also provides an opportunity for students to reason and problem solving.

The game can be played in pairs and small groups. While the numbers are represented in a vertical list, encourage students to use mental strategies to add the numbers.

**Be aware that:**

- Students may try to make the TENS column add to 100, resulting in totals consistently exceeding the 100 target.

**Differentiate the task by:**

- Changing the target number
- Playing the game with three places: Hundreds, Tens and Ones
- Modify the games to play with decimals, eg. Ones and Tenths OR Tens, Ones and Tenths
- Providing materials for students to model numbers and support computation

**Guiding Questions:**

- *What was your strategy for placing digits on the Tens and Ones mat?*
- *How far from 101 is your number?*
- *How would playing the game with five rolls of the dice change your strategy?*

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