Get Closer

Big Idea: Place Value

Suits: Years 1-8

Materials:

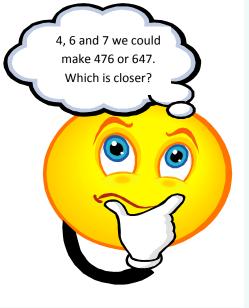10 sided dice, Open number lines

Instructions:

A game for 2 – Whole Class

- Preselect a number in the given range. For this example 565
- Each pair of students has three 10 sided dice.
- Students
    o roll the dice
    o using the digits they have rolled create the number that is closest to the selected number
    o place it on the number
- Ask:
    o Which is closest?
    o How do you know?
    o How much closer is it?

> 4, 6 and 7 we could make 476 or 647. Which is closer?

Teacher Notes

This activity can be varied to suit all age groups.

- Year 1 - Order 2-digit numbers on a numberline
- Year 2 - Partition 3-digit numbers
- Year 5 - Use place value to partition decimals

Be aware that:

Students may not use place value reasoning to decide. Teachers need to ask why they have chosen to use the number that they have placed on the number line

Differentiate the task by:

- The number of dice selected and the target number. For example:
    o 2 dice to get as close as possible to 7.6 or
    o 3 dice and 27.6 or 6.27
- Play as a game - keep a running tally of how close they are to the target number. After each roll. The winner is the closest after 5 rolls.

Challenge students by:

- suggesting variations to the game e.g. 0's are wild and have student suggest variations.

Guiding Questions:

- ➢ *Is this the closest you can get using these digits? Why?*
- ➢ *Why did you choose to use the 6 in the hundreds place?*