Big Ideas in Number Focus Area: **Place Value**

Name of Game or Activity: **Place Value Paths**

Instructions:

Place a starting number in the top circle and a finishing number in the bottom circle of each board.

Teacher to give these numbers and then to roll the dice

Use the two or three numbers rolled to make a 2 or 3 digit number. You can use them in any order. *Example: You roll a 2 & 7. This could be used as 27 or 72.*

This number is then written on the gameboard in one of the available squares. Students need to remember to

judge where the best place is along the line. If you use 72 (between 0 & 100) it would possibly go about 3 quarters of

the way along the line.

If there is no available space for their digits they will need to pass. *Example: If you rolled a 4 & 6 you couldn’t use 46*

*or 64 in this example. If, however, you rolled a 2 & 3 you could use it as 32 maybe placing it in the empty right*

*square.*

The winner is the one who fills all the empty squares first.

Resources:

· Game board in a plastic sleeve for each student

· Whiteboard pens

· 2 or 3 ten sided Dice (0-9 or tenths/hundredths etc)

**BIiN Micro Content**

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| **Order of digits makes a difference** |  |
| **Additive property – The quantity represented by the whole numeral is the sum of the values represented by the individual digits** |  |
| **Positional property – The quantities represented by the individual digits are determined by the position they hold within the whole numeral** |  |
| **Base 10 property – The value of columns or positions increases by a power of 10 moving right to left and decreases by a power of 10 moving from left to right** |  |
| **Multiplicative property – The value of a number is determined by the products of its face and place values** |  |
| **There are patterns in the way we read and say numbers** |  |
| **There are patterns in the way we write numbers** |  |
| **Patterns in the number system can help us build other numbers** |  |
| **Place value columns have names** |  |
| **Zero can hold a place** |  |
| **A 10 group is seen as a special entity which can be counted** |  |
| **The term 10 group can be applies to ‘ten tens’ or ‘ten hundreds’ and so on** |  |
| **We can skip count by ten, hundred etc. both forwards and backwards in place value parts** |  |
| **Numbers can be partitioned in flexible ways using standard and non-standard partitions** |  |
| **Number partitioning can be shown as indicative of digit value and place value. For example, 26=20 + 6 or (2x10) + (6x1)** |  |

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