## Big Ideas in Number Resource Information

Big Ideas in Number Focus Area: Place Value

Name of Game or Activity: Dice Digits

<u>Instructions:</u> The dice is rolled and the number shown placed in the box on the top row of the recording sheet. When the dice is rolled a second time the number may be placed in either the first or second box in the second row of the recording sheet. Students think about place value and where the number would best fit to make the largest number. The second row must be completed before moving to the next row and so on. When all spaces are filled, <u>the numbers are added.</u> The winner is the person with the largest total.

Differentiation: Choose the number of rows to suit.

Extension: students write their total on a slip of paper, order themselves with their number from smallest to largest. Each students reads aloud their number to practise the patterns of multi-digit numbers.

<u>Resources:</u>1 x 10 sided dice, recording sheet for each student, notepaper/sticky note for extension.

## **BliN Micro Content**

| 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-<br>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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