## HOT DOTS

## This is a fun little game with lots of maths in it.

## Materials:

Small beads in a range of colours.
String with a knot in one end (tied around a bead) and the other end bound in masking tape. Shoe laces cut in half and tied at one end also work well.
Cards with digits 1-6 on them with the appropriate number of dots arranged as for a die, or Numicon patterns. See page 2

| Rules. | Some of the maths involved: |
| :---: | :---: |
| Turn the cards face down. <br> Player 1 selects a card and takes beads from a selection on a lid and takes enough beads to match the number of dots. | Oral counting; Subitising - this is the process where the number can be recognised without having to count the dots. Most adults can recognise the result of a roll of a die by looking, without having to count. |
| Beads are placed on top of the dots. | 1tol correspondence one dot, one bead, one count word. |
| The beads are counted together. Helper says, "You have ... beads" and points to the number. | Cardinality - this refers to the rule that the last number in a count tells you the answer to "How many?" |
| Beads are then threaded on the string, counting as you go. | Fine motor work, oral counting. Oral counting involves knowing the order of the words. |
| Next player has a turn. | Turn taking |
| After the players can match the dots with beads without error, the number of beads on the lid is changed so that there are not enough. Player is asked how many more are needed. | Part-part-whole this involves knowing a number can be made up of other numbers; counting on. is an important strategy for addition and subtraction and flows from understanding the concept of part-partwhole. |
| Continue playing for as long as there are cards. |  |
| Compare the length of players' strings. | measuring/comparing and vocabulary such as longer, shorter, more, less |


| 0 |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $\bigcirc$ | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 0 | 10 |
| 0 |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $\bigcirc$ | 0 |


| 6 | 1 | 2 |
| :---: | :---: | :---: |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 6 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |



