

# 1-120 Number Charts

## Teaching Suggestions

These 1-120 Number Charts have been designed to allow children to independently explore and extend number concepts presented using the Nexus Turn & Learn 0-120 Number Board.

Children can use transparent counters or dry erase markers to highlight number patterns on the charts.

The blank grid on the reverse side allows children to create and explore the patterns in a variety of other grids such as; grids beginning at zero, beginning with the lowest number in the bottom row, spiral grids and multiples grids.

Prior to beginning any in-depth mathematics using these number charts children should be familiar with the structure of the grid. Begin by introducing an activity on the Nexus Turn & Learn 0-120 Number Board and ask children to extend or explore a variation of this activity.

- Highlight a counting pattern for example the twos pattern. Ask children what they notice about the numbers in the same column, (they all end in the same digit). They may even notice that last digit in the numbers in the twos counting pattern is 2, 4, 6, 8 and 0.
- Highlight the odd numbers. Ask children what patterns they see.
- Highlight one number; ask children what they notice about the number above, below to the left and to the right.
- Highlight all the numbers with a particular digit in them for example; the number four. The digits appear in one column and row.
- Ask children to highlight numbers where there is a difference for example of two between the digits.
- Explore the diagonal running from 11 to 110 (all numbers are multiples of eleven, the numbers less than 100 have the same digits)
- Explore the diagonal running from 9 to 81 (digits add to nine). Ask children to investigate if the pattern is the same for numbers larger than 81 that are multiples of nine.

## Place Value Activities

- Highlight the numbers for example, with a three in the ones place. Children should notice that all the numbers appear in the same column.
- Highlight all the numbers with same digit in the tens place. These numbers will all appear in the same row apart from the first number. For example, the numbers with a 5 in the tens place will appear in the sixth row apart from 50 that appears at the end of the fifth row. Ask children if they could design a grid where all the numbers with a 5 in the tens place are in the same row (it would begin with a zero). This 0-119 grid can be displayed on the Turn & Learn 0-120 Number Board.

- Highlight particular numbers, for example the number with an 8 in the tens place and a 3 in the ones place or a one in the hundreds place a zero in the tens place and a six in the ones place.
- Highlight all the odd numbers with a seven in the tens place.

## Challenges and Games

Play a these games first on the Nexus Turn & Learn Number Board to make sure children understand the rules.

### Who am I?

Ask children to write clue cards and play in small groups using the 1-120 number charts. Children can cover up numbers with solid counters if they do not fit the clue. Encourage children to use mathematical language such as less than, greater than, I am multiple of... and place value language.

#### Example

- I am an even number
- I am less than 50
- I am a multiple of three
- The difference between my digits is two
- The total of my digits is six.
- My tens digit is lower than my ones digit (I am 42)

### What Number am I?

This game can be played using either the 1-120 number grid or the blank grid on the reverse side of the chart. When they are using the blank grid you will need to tell students the starting number or ask them to write the numbers in the first row. Review row and column terminology for this game.

#### Example 1: Using the blank grid starting at zero

- I am in the fourth row and have a six in the ones place. (36)
- I am in the ninth row and in the third column. (82)
- I am in the fifth row and a multiple of nine. (45)

#### Example 2: Using the blank grid with numbers 0 to 9 in the first row

- Imagine I am a fly on the number zero. I am walking one number to the right and two numbers down. What number am I standing on? (21)
- Imagine the fly landing on 11 and walking diagonally across the board to the left for a distance of three numbers. What number is the fly standing on? (44)

## References

Swan, P. (2007) Turn & Learn: Exploring the Possibilities, A-Z Type , Perth, Australia

Ferguson, M. & Anderson, K. (2006) Turn & Learn 0-120 Number Board Activities, Knowledge Builder, Melbourne, Australia