



Magic Squares

In this activity the child constructs a “magic square” of numbers where the sum of each row, column, and diagonal is the same. (And each square uses the numbers from 1 upwards sequentially, 1 to 9 in the 3-square and 1 to 16 in the 4-square.)

The child needs to develop strategies to work out the missing numbers.

Every row, column, and main diagonal (top left to bottom right and top right to bottom left) adds to 15. Check that the child understands ‘row’, ‘column’, and ‘diagonal’.

Help the child complete the square. Check that you have used all the numbers from 1 to 9.

	5	
	9	2

Especially at first, you may have to help the child to see how to progress. For example, ask which row or column or diagonal they think they can complete knowing that the total is 15. (The basic idea is that it has to have only one missing number.) Say the child chooses the bottom row. The child then needs a strategy to solve $9 + 2 + \text{something} = 15$. Once the child has found a couple of missing numbers with whatever help is necessary, they should be able to do the rest themselves.

Every row, column, and main diagonal (top left to bottom right and top right to bottom left) adds to 34. Help the child complete the square. Check that you have used all the numbers from 1 to 16.

1		14	
12	6		
			5
13	3		16

Answers

8	1	6	15
3	5	7	15
4	9	2	15
15	15	15	15

1	15	14	4	34
12	6	7	9	34
8	10	11	5	34
13	3	2	16	34
34	34	34	34	34