Tear Apart Magic Square

3	7	12	11
13	8	1	8
3	4	17	6
14	11	0	5

Stephen Clark has developed magic grids that acted like magic squares but are not squares.

If the student has not worked with magic square it s before it would be best to use a few basic magic squares first and use this trick after they have seen the standard squares.

Ask the student if they know what a magic square is. If they say no tell them it is a square grid with numbers in rows and columns. The total of all the rows, columns and diagonal must be the same. We call this common total the magic total. Show the card below and ask then to see what the magic total is. They discover the rows, columns and diagonals do not all add up to the same totals. They say it is not a magic square.

3	7	12	11
13	8	1	8
3	4	17	6
14	11	0	5

You check their work and say " You are correct. Somethings is wrong. Oh wait I know what the problem is." You tear out the squares with the 3 and the 0 on them and ask them to recheck the totals to see if that fixed the magic square. When they recheck the square they discover that the rows, columns and diagonals all add up to the same total, which is 30.

Lay down the two squares so the number 30 shows. You fixed the square and had the correct total on the 2 squares you tore out.

	7	12	11
13	8	1	8
3	4	17	6
14	11		5

| 3 | | 0 |