Teacher's Notes for Activity Sheet 1

This activity sheet begins by leading the reader through the construction of a 3 x 3 magic square. You might opt to just demonstrate this construction on the overhead instead of or in addition to having the students read the construction method. One idea for demonstrating the construction would be to use overhead transparencies to mimic the movement indicated by arrows on the sheet. Another idea is to extend the rows and columns of the magic square but still highlighting where the actual magic square boundaries are and to wrap the excess around to form a tube to show where entries that appear outside the square end up relocating to.

After showing the construction method for 3 x 3, students can get experience in writing/communicating an algorithm or step-by-step procedure. One way to assess the algorithm would be to distribute their final version to another group or student to see if they can follow the steps to construct a 3 x 3 magic square.

As an extension problem, students could explore the algorithm for constructing a 5 x 5 magic square. The construction is very similar to the 3 x 3 except in the second and third stage. In the second and third stage for the 3 x 3 magic square, students had to count 3 spaces down whenever there was a number in the pair's position. For the 5 x 5 case, this needs to be altered by counting 5 spaces instead of 3.

5 x 5 Magic Square:

11	18	25	2	9
10	12	19	21	3
4	6	13	20	22
23	5	7	14	16
17	24	1	8	15