12 COUNTERS
Investigation Guide

1. Play about three games using the task card.

2. Comment on the following strategies for the game.

   Player 1
   I put one marker into each square because whatever I roll to start with I can always take off a marker.

   Player 2
   The most likely dice total is 7, so I put all my markers onto that square.

   Player 3
   I want to spread out my choices but also leave out the extremes, so I put 2 markers into each of squares 5, 6, 7, 8, 9 and 10.

3. Which dice totals are the most likely to occur? Make a table of all the ways each can happen.

4. If the game was played with just one marker each - which would be the best square in which to place it?
   What if each player had two markers?, or three?

5. How could you decide which of the following arrangements is better?

	1	2	3	4	5	6	7	8	9	10	11	12
i)	0	0	0	0	0	4	4	4	0	0	0	0

   ie: 4 markers in each of squares 6, 7 and 8

	1	2	3	4	5	6	7	8	9	10	11	12
ii)	0	0	0	0	0	0	12	0	0	0	0	0
iii)	0	0	0	1	2	2	2	2	2	1	0	0
iv)	0	0	0	1	1	2	3	2	1	1	1	0

6. Investigate other possibilities to try to determine the 'best' arrangement.