Probability

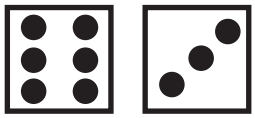
A [illegible] 1-D [illegible]

People use the mathematical concept of probability almost everywhere in life: in weather, in lottery winnings, in sports and in games! In this activity you will see how probability plays a role in the everyday games we play.

two six-sided dice, two different counters - one for each player (use buttons, coins, etc.), a piece of paper, a pen and cardstock or thick paper to make a game board.

On a piece of cardstock or thick paper draw a rectangle 18 cm x 2 cm. Divide your rectangle into nine equal squares, each 2 cm x 2 cm. Write the word “WIN” on the left most square and write the word “LOSE” on the right most square. Write the word “START” on the middle square.

- This is a game for two players.
- To decide who goes first; each player rolls one die and whoever gets the higher score goes first.
- Roll two dice. Look at the numbers on the top faces. Let’s say there are six and three.



- Find the difference between the numbers (to do this, subtract the smaller number from the larger one) In this case, the difference is 6 – 3 = 3.
- If the difference is: 0, 1 or 2 then move ONE space to the left.
- If the difference is: 3, 4 or 5 then move ONE space to the right.

Probability

A [illegible] 1-D [illegible] - *continued*

- Each player only gets one turn and the players alternate.
- Continue the game until one of the players loses or wins (i.e. lands on either the leftmost or rightmost square).

1. Play the game several times.
2. Which move occurs more often in the game: to the left or to the right? Why?
3. Is this game fair? Why or why not? Is one player more likely to win than the other?
4. Does it matter whether you go first or second? Does that affect your chances of winning?