# Dice Differences

Materials: two dice per pair

#### Rules:

You and your partner will take turns rolling two dice. Subtract the smaller number from the larger number. The answer is your "Dice Difference". If you roll a six and a four, the dice difference is two.

## Scoring Points:

There is a LOW PLAYER and a HIGH PLAYER. The LOW player wins a point if the dice difference is 0, 1, or 2. The HIGH player wins a point if the dice difference is 3,4, or 5. So, if the dice difference is two, the LOW player wins a point.

### Goal:

The first player to 25 points wins.

Game 1: Use tally marks to record each time a player scores a point.

	Low	High
5		
10		
15		
20		
25		

Game 2:

	Low	High
5		
10		
15		
20		
25		

## Reflection:

1. Does the game seem to be fair to both players? Explain your reasoning.

2. Create a table that shows all the possible outcomes for players.

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

3.	What is the probability of the LOW player winning?
4.	What is the probability of the HIGH player winning?
5.	If the game is unfair, how could you change the rule and make it fair?