

# Probability

## Activity 2 - Rock, Paper, Scissors

The game of Rock, Paper, Scissors is wildly popular throughout the world. The game goes by many different names worldwide; there is even a Rock, Paper, Scissors World Championship! Despite its popularity and common usage, did you know that the game is a lesson in mathematical probability?

### Game Instructions:

- The game is for two players. Players face each other and count “1, 2, 3...go!”
- On “go”, the two players create one of the three symbols with their hands at the same time:

**A Fist Means Rock**



**Flat Hand Means Paper**



**Two fingers sticking out means scissors.**



- A player whose symbol beats the other player’s symbol wins that round and gets one point.
- If both players show the same symbol, the round is a draw and no points are awarded.

★ **Paper Beats Rock**  
★ **Rock Beats Scissors**  
★ **Scissors Beat Paper**

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Can you believe THIS is math?

# Probability

## Activity 2 - Rock, Paper, Scissors - *continued*

- Play the game with a friend or someone from your family 20 times.
- Record your results in the table below to keep track of how often each symbol wins:

	Number of Times Rock Wins	Number of Times Paper Wins	Number of Times Scissors Win	Total Number of Wins
Player 1				
Player 2				

- Which symbol is more likely to win according to your data? What's the probability?
- Which player is more likely to win with what symbol according to your data?
- Which symbol lost in a game most often according to your data?
- According to mathematics rather than your data, what is the probability of each symbol winning any given game?
- How many times did you have a tie, i.e. when no one won?

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Can you believe THIS is math?