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Thank You!

Cassidy and Chloe - [Inspired By Math](#)



Name: _____

Rock Paper Scissors Probability Tournament

Welcome to our class-wide Rock Paper Scissors Probability Tournament! Today, you'll play multiple rounds against different classmates, record data, and explore probability concepts.

Setup:

- Divide the class into groups of 4-5 students each.
- Each group will conduct their own mini-tournament.

Instructions:

1. In your group, each player will play 5 rounds against every other player.
2. Record both players' choices and the outcomes for each game in the table.
3. After all games, tally your results and complete the reflection questions.
4. We'll then discuss findings as a class.

Tracking Sheet:

Opponent's Name	Game	Your Choice (R/P/S)	Opponent's Choice (R/P/S)	Outcome (W/L/T)
1.	1			
	2			
	3			
	4			
	5			
2.	1			
	2			
	3			
	4			

	5			
3.	1			
	2			
	3			
	4			
	5			
4.	1			
	2			
	3			
	4			
	5			
5.	1			
	2			
	3			
	4			
	5			

Personal Totals:

- Total Wins: _____
- Total Losses: _____
- Total Ties: _____

Personal Choice Frequency:

- Rock: _____
- Paper: _____
- Scissors: _____

Reflection and Analysis:

1. Determine the sample space for a 1 round game of Rock, Paper, Scissors.
2. What was your most frequent choice? Calculate the experimental probability. How does this compare to the theoretical probability?
3. Did you notice any strategies that seemed to work well? Why do you think they were effective?
4. Based on your data, which choice did you win with most often? Is this what you would expect theoretically?

5. Calculate the experimental probability of the following events:
- a) $P(\text{A game resulting in a tie}) =$
 - b) $P(\text{Rock beating Scissors}) =$
 - c) $P(\text{You winning a single game}) =$
6. How do the experimental probabilities from question 5 compare to the theoretical probabilities?
7. If we repeated this tournament many times, how do you think the results might change?
8. Can you think of any real-world scenarios where understanding this type of probability might be useful?