L1: Probability Games

Name:

Ma8 U4 Probability

Game 1: Blue Wins!

Rules: Determine who is Player 1 and Player 2. Player 1 is Red, Player 2 is Blue. Player 1 tosses the two colour counter, then Player 2 tosses their counter.

- Player 1 receives 1 point each time one of the counters lands on Red
- Player 2 receives 1 point each time one of the counters lands on Blue

Who will win? – justify your answer

Play the game 10 times. Record your results – what colours come up and how many points you get.

Fill in the table

Round	1	2	3	4	5	6	7	8	9	10
Outcome										
Points P1										
Points P2										

Who won at the end of 10 games?

Play another 10 more games

Round	11	12	13	14	15	16	17	18	19	20
Outcome										
Points P1										
Points P2										

Who is the overall winner?

Game 2: Blue Wins Again!

Rules:

- Player 1 flips their counter
    - Red – gets 2 points
    - Blue – Player 2 flips
        - Red – Player 1 gets 1 point
        - Blue – Player 2 gets 2 points

Who will win? Explain

Play the game 10 times

Round	1	2	3	4	5	6	7	8	9	10
Outcome										
Points P1										
Points P2										

Who won?

Play the game 10 more times

Round	11	12	13	14	15	16	17	18	19	20
Outcome										
Points P1										
Points P2										

Who is the winner?

Was this a fair game? Why or why not?

Game 3: Roll of the Dice

Rules: 4 players, each player is assigned a sum of dice

- Player 1 – 7 and 8
- Player 2 – 5 and 10
- Player 3 – 10 and 12
- Player 4 – 4 and 9

Roll the dice. Each person receives 8 points whenever the sum of the dice is equal to one of their special numbers. The winner is the first person to 100 points.

Who will win the game and why?

Play the game. Record the results in the following table

Player 1 – 7 & 8	Player 2 – 5 & 10	Player 3 – 10 & 12	Player 4 – 4 and 9	2, 3, 6, 11

Who won the game? Why?

If you played the game again, who would win?

Play the game again. Record the results in the following table.

Player 1 – 7 & 8	Player 2 – 5 & 10	Player 3 – 10 & 12	Player 4 – 4 and 9	2, 3, 6, 11

Who won the game?

Homework: Probability IRL

Find an example of how probability is used in real life. If you can take a picture of that example, great!

Post your answer to the Probability Padlet https://padlet.com/mahoy/bnwxq44usmf1