Name_____
Period_____

Chip — Probability Activity Sheet

Game Board

Start	1	2	3	4	5	6	7	Home

Procedure:

Each player places his token on the Start place. First player to reach Home wins.

1. Place 4 red chips, 3 white chips and 1 blue chip into an opaque bag.
2. A volunteer will pick chips out of the bag. His/her job in each round is to pick a chip from the bag 3 times (with replacement) and announce the color.
3. In each round the student chooses one of the following Statements:
    a. All chips have the same color
    b. All chips chosen are red
    c. Not all chips chosen have the same color
    d. There is no blue chip among those chosen
    e. There is at least 1 white chip among those chosen
    f. There is at least a blue chip among those chosen

If the statement a student chooses is true, he/she gets to move ahead 1 space.

Answer the following questions:

1. What does this game have to do with probability?
2. What is a good strategy to win the game?
3. Based on the empirical evidence of playing several rounds of the game:
    a. Which statement seems likely to happen?
    b. Which statement seems unlikely to happen?
4. Is there a way to compute the theoretical probability?
5. Can you add a statement which is certain to occur or certain not to occur?
6. Can you make a variation of the game?