

Name _____ Date _____ Period _____

You are going to design two different probability experiments; one that has **fair** outcomes, and one that has **unfair** outcomes.

FAIR experiment

1. Your experiment has to have at least four possible outcomes.
What will you use? (cards, dice, colors...)
Write your experiment here. Describe in detail what you are using and how many of each item you need.
2. Record all of the possible outcomes of the event.
3. How do you know you have created a "fair" experiment?
4. Assign probabilities to each event using a fraction or word from the probability scale.
5. Design a recording chart for your data on a separate sheet of paper.
6. Conduct your experiment and collect data using an appropriate sample size.
7. Record your data.
8. Were the outcomes what you expected them to be? Explain.

UNFAIR experiment

1. Your experiment has to have more than two outcomes.
What will you use? (cards, dice, colors...)
Write your experiment here. Describe in detail what you are using and how many of each item you need.
2. Record all of the possible outcomes of the event.
3. How do you know you have created an “unfair” experiment?
4. Assign probabilities to each event using a fraction or word from the probability scale.
5. Design a recording chart for your data on a separate sheet of paper.
6. Conduct your experiment and collect data using an appropriate sample size.
7. Record your data.
8. Were the outcomes what you expected them to be? Explain.