## Carnival Game Tycoon Lecture Notes: Lesson 1

Name: $\qquad$
Delta College STEM Explorer
Hour: $\qquad$
I. Introduction to Probability

Defined: Probability is the study of $\qquad$ .
A. Early Mathematicians: $\qquad$ and $\qquad$ .

1. Desired to use concepts of $\qquad$ to make $\qquad$ .
2. Probability is represented as a $\qquad$ and a $\qquad$ .
3. $\qquad$ = impossible, $\qquad$ =certainty
B. Random Events
4. A $\qquad$ is any activity with $\qquad$ or more possible outcomes in which there is $\qquad$ about which will occur.
5. $\qquad$ basic chance experiments: a $\qquad$ flip, a $\qquad$ of a die, and picking a $\qquad$ from a deck.

- Activity 1: Coin Flip

3. Sample Space: A set of $\qquad$ possible $\qquad$ in a chance experiment.
a. Coin Flip:
b. Rolling a Die:
c. Card Draw:
4. $\qquad$ : a $\qquad$ of outcomes from a sample space.
a. Ex. $\qquad$ on a coin flip.
b. Ex. Rolling a $\qquad$ on a die.
c. Ex. Picking a $\qquad$
$\qquad$ from a full deck of cards.
II. Calculating $\qquad$ .
A. If all the outcomes in a sample space $(S)$ are $\qquad$ , then the probability $(P)$ of the event $E$ is:
B. Examples: Probability of:
5. tails on a coin flip:
6. 6 on a coin roll:
7. Ace of Spades on a card draw:
8. 1 or 2 on a die roll:
9. Face card on a draw:

Remember: The $\qquad$ we get to $\qquad$ the higher the likelihood of the event.

