Ecology Game

Objective: Create an ecology focused game to best demonstrate your knowledge of the interconnected relationships between organisms in an ecosystem.

**Your game must follow these four requirements**

* It must be able to be played with 3+ players.
* It must follow a realistic ecosystem *(for example, polar bears, sharks, and kangaroos cannot all coexist in your game)*
* It must have at least two trophic levels represented.
* Changes in population must be quantifiable (aka graphable).
  + Look to the African Lions simulation, the rabbits excel simulation, the Notecard simulation or your deer/wolf graph for inspiration on how populations can change over time

**Use the following Diagrams below to brainstorm some ideas for your group’s game.**

Trophic Levels in your Ecosystem

**Vocabulary Words to include**

Trophic Levels

Ecological Succession

Carrying Capacity

Logistic Growth

Exponential Growth

Biotic Factors

Abiotic Factors

Producers

1°-4° Consumers

Decomposers

Birth/Death Rate

Suggestions from Ms. Wynn:

-Pick a number of organisms to start with and figure out a creative way to increase the population over time

-It’s a game, so get creative with the cards, the board your game is played on, or the actions that must be completed each round.

-Games are always more fun when random events occur—this seems like a great way to include some of the biotic and abiotic factors that always impact ecosystems

Now answer the following questions to help your group brainstorm some initial ideas

* What format will you use for your game (board game, card game, simulation, computer game?)
* What ecosystem will you represent? What animals from that ecosystem will you include?
* What outside factors will you include in your game?
* How will the game work? Now is the time to start writing the rules or directions.
* What materials will you need in order to make your game?

**\*\*\*\*Once you have completed this handout with your group check in with Ms. Wynn and get approval to start making your game!\*\*\*\*\***