### **Trophic Trials**

Trophic Trials is an educational game designed to teach players about trophic levels in land ecosystems, or the different levels of the food chain. Each level of the food chain has different requirements for the survival of the species that belong to it, and each level interacts with other levels in different ways. You must create an ecosystem where the resource requirements for each trophic level has been met through collecting and managing resources. But be careful, not only do some levels need the same requirements, but so too will other players!

Goal: The first player to complete all the trophic levels wins.

#### **Needed Materials:**

- The deck of resource cards
- A playing piece for each player
- The game board
- Trophic level tokens
- Sun auction tracker

#### Card numbers:

- 16 CO2
- 16 water
- 16 O2
- 16 soil
- 16 plant
- 16 meat
- 12 glucose

## Setup:

- Each player chooses a color and puts their playing piece on the sun spot.
- Place the 7 decks of different resource cards near the board
- Deal Each player 2 meat and 1 plant
- The player who most recently planted a tree goes first (or choose randomly) and play proceeds clockwise from the first player

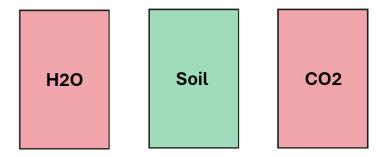
# Gameplay:

At the beginning of a player's turn, they choose one of the following actions to complete:

- Add one card to the resource line
- Start a bid for the the resources
  - o A player may also complete one trophic level at the end of their turn

Add one card to the resource line:

- Roll both dice
- Add one card to the resource line corresponding to a result on either one of the rolled dice. If the result on both dice are the same, a glucose card may be added to the resource line instead.
  - 1: Soil
  - o 2: O2
  - o 3: CO2
  - o 4: Water
  - o 5: Plant
  - o 6: Meat



In the image above, there are 3 different resources in the resource line.

Ex: Player A rolls a 1 and a 4. Player A then chooses to add either a soil or a water card to the resource line. Player As turn is over. Player B then rolls a 5 and a 5. Player B then chooses to add either a plant or a glucose card to the resource line. Player Bs turn is over.

Start an auction for the resources (Mandatory if there are 5 resources in the resource line):

- The player who starts the auction takes the large sun piece (this is just to track who started the auction)
- Starting with the current player, each player either bids a number out loud or passes. A
  player can't bid a number higher than the amount of resource cards they have in their
  hand.
- Once a player has passed they may no longer bid on the current resource line.
- The bid ends once all but one player has passed. The winner then distributes an amount
  of resource cards from their current hand to other players equal to the amount they bid.
  The winner must distribute cards as equally as possible, but if they can't then they may
  choose.
  - Ex: In a 4 player game, Player A bids 5 cards and wins. Player A then must distribute at least one card to each of the 3 other players, but then chooses 2 of the other players to give another card to (making a total of 5 cards distributed).
- The winner then collects all resource cards in the resource line (there is no hand limit).
- Play then proceeds to the next player in turn order (from the player who currently has the sun piece)

# Completing a trophic level:

At the end of their turn, a player must complete **ONE** trophic level if they are able. To do so, the player plays all the resource cards that satisfy the requirements of the trophic level they are going into. Then the player moves their playing piece to the next level.

Ex. If player A is currently in the Producer level, then they must play 1 O2, 1 Water, and 1 Plant card at the end of their turn to move into the Primary consumer level.

#### Completing the decomposer trophic level:

The decomposer is the final level. The first player to complete the decomposer level first wins.

## Requirements:

The resource requirements to enter each of the trophic levels are as follows. Any resource may be supplemented with a glucose card.

- Producers: 2 CO2, 1 Water, 1 Soil
- Primary consumers: 1 O2, 1 Water, 2 Plants
- Secondary consumers: 1 O2, 1 Water, 1 Meat
- Tertiary consumers: 1 O2, 1 Water, 2 Meat
- Decomposers: 1 Meat, 2 Soil, 1 O2, 1 Plant

### Trading:

At any point during their turn, a player may trade 4 of the same resources for any one resource of their choice. Remember: A player that trades in 4 resources for 1 decreases the overall amount of cards they have in hand, which may make it harder to win future auctions.