

The Antarctic Food Web Game

Directions

1. Each person will represent a predator in the food web that feeds on zooplankton. First, each person needs to select which predators they are going to be for the simulation: Mackerel icefish, Humpback whale, Cape Petrel, Weddell seal, or Adelie penguin.
2. Once you have chosen which predator you are going to represent, read from what your food requirements (krill and/or slaps) are for each round (season) of the simulation.
3. Find the Round 1 game board and the Round 1 ziplock bag of krill and salps (beads). Empty the contents of the Round 1 ziplock bag onto the board. The krill (red/pink/orange beads) should be placed beneath the ice sheet where the ice algae are located and the salps (white/black/grey beads) should be placed in the open water where they feed on the free-floating algae.
4. You will begin the round (season) by each person rolling the die. The person with the highest number will go first, and then the order will progress around the group to the right. This order only lasts for this one round (season).
5. When it is your turn, you must take enough food/beads (krill or salps) from the game board so that you have energy to last to the next round (season). Reminder, the predator cards provide information on what and how much food each predator needs to eat per round (season).
6. Each person must fulfill his/her food requirements. If you cannot fulfill these requirements during this round, then you haven't received enough energy this season. You are tired, but safe. However, if you cannot fulfill these requirements during the next round (season), you will need to realize there isn't enough energy to survive in this location ~ so you will decide to move to another area. In that case, you are no longer part of the ecosystem and no longer participate in the following rounds (seasons) of the model.
7. When each person has taken their turn in Round 1, then place the krill and salps (beads) from Round 1 back into the Round 1 ziplock bag.
8. Then record in the Antarctic Food Web Data Table how much food each person in your group was able to consume in the round (season).
9. Repeat steps 3-8 for Round 2 and Round 3 of the model.