

Happy Fishing

The purpose of this simulation is to demonstrate how individuals using a common resource (the commons) for their own personal gain will inevitably result in the degradation of the commons, and a decrease the yield for both the group and the individual.

Materials:

- 1–“fishing pole” (2 straws taped together)
- 1–“ocean” with 20 “fish” (bowl of M&Ms)

Procedure:

Your group will get an ocean full of fish, each group member will get a fishing pole, and the entire group will fish for several years. Between fishing seasons the fish will reproduce until they reach the carrying capacity of the ocean. A bonus will be given to the member of each group who catches the most fish.

- To “fish” you must use the fishing pole to “suck” the fish out of the ocean.
- The “ocean” has a carrying capacity of 20—so there will never be more than 20 fish in the ocean.
- Fish one “season” at a time, which represents one generation of fish. Each student may catch as many as he/she wants. They need at least one fish or they will starve.
- After the first fishing season (60 seconds), stop fishing, and the fish will “reproduce.” For every fish left in the bowl, another will be added, up to the carrying capacity of 20.
- Record the number of fish caught during each season by each individual and by the group.
- Fish for another season. Stop and let the fish reproduce.
- Repeat.

Postlab:

Write a discussion, in which you relate this activity to the relationships between human societies and the environment, and discuss possible methods to remediate overuse through cooperation.

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