

Tragedy of the Commons

Eco-Schools Topic:

Healthy Living,
Ecology

Objective: Students better understand their positive and negative effects on their community and environment. Tragedy of the Commons explains the idea that there we all share certain spaces and resources, and therefore must be careful not to take more than our share. Teach the word consumption.

Grade Level: Grades 3-8

Prep: None

Time: One hour

Materials:

- Coloring Supplies
- White Paper
- Something to make a line in the field for Shark, Fish, Algae
- White Board and Marker
- Goldfish
- Napkins/ Paper towel/ paper plates
- Printed- off data tables in "Oh Fish!" (4 students per sheet)

Engaging Intro (15 minutes)

- Probing questions for your role in the environment?
 - What Role do you play in the environment? How do you help/ hurt the environment?

Exploratory Activities (OUTSIDE) (25 minutes): ROTATIONS (10-15 min at each station)

- Younger Students (K-3) (15 minutes each)
 - **Drawing Activity:** Students observe their outside surroundings and draw how animals interact with other animals and the environment (ex. squirrels eating acorns), and how they perceive themselves in their surrounding environment (in observation journals). Then, a quick discussion on any food chains that students saw in their environment. You may want to give them a few goldfish to snack on since the older kids will be getting them. **Additional:** Place a certain amount of markers in the middle of the table and during discussion talk about sharing the markers to mimic the concept of Tragedy of the Commons (what would happen to my neighbor if I took all the markers? What would happen if this were fish?)
 - **Humans in Nature:** Similar to freeze dance. Students run around and dance, and then instructor shouts out a human action, and kids act it out. The kids can say whether this action is good or bad
 - Action Examples:
 - Positive: picking up litter, riding their bike, turning off lights
 - Negative: flying in an airplane, cutting down a forest, feeding wild ducks in a park, fishing TOO many fish in the river
- Older Students (3-6) (15 min each)
 - **Shark, Fish Algae Game** (see website instructions)
 - **Go Fish!**
http://earthwatch.org/Portals/0/Downloads/Education/Lesson-Plans/Go_Fish.pdf



*With a little bit of knowledge, we can **ESLI** make a difference*

Notes of clarification:

- If one member “starves,” no one else can fish for the next round.
- Once the fish population hits zero, the boxes for the rest of the game will be zero
- At the end of one year (once every member goes once), you replicate the number of fish in the common area resulting in double the amount compared to before replication.

Meaningful Discussion: (5-10 minutes):

- Reflect on lessons and anything students will try to do to have a positive impact when interacting with nature (not take more than their fair share, leave no trace on walks/ trails, etc). Reflect on

Lesson Objective Questions: Can your students answer these questions at the end of the lesson?

- I think about how my consumption of resources will affect other people and the environment. (Tragedy of the Commons)
- If I take all of the fish from the pond, then:
 - A) My neighbor can also take lots of fish
 - B) My neighbor will get less fish
 - C) My decision doesn't affect my neighbor(Tragedy of the Commons)



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