Lesson: Go Fishing

Phase of learning
Years 5 - 6, Years 7 - 8, Senior Secondary (Years 11-12)

WA Curriculum
K-10 Humanities and Social Sciences, K-10 Science

Region
North Coast, Gascoyne Coast, West Coast, South Coast, Indian Ocean Territories

Summary
Students will attempt to manage a sustainable fishery with pressures from increasing technology and fishing efficiency.

Outcomes

- Students will attempt to manage a sustainable fishery with pressures from increasing technology and fishing efficiency.

Duration
1 hour

Preparation
Background information on fisheries management strategies may be found in the Fact Sheet: [Fisheries Management](#).

This activity calls for two types of lollies (or alternatives could include counters, breakfast cereals, popcorn or anything that can be 'captured' using a straw or a spoon. Two different types are required to represent 'high value' (larger and more difficult to capture) and 'less valuable' (smaller and easier to catch) fish. Whatever is used, choose a fun name to call the 'fish' e.g. Jaffafish and Chocolate buttonfish.

Students will work in groups of 4-5. Each group will require a plate or bowl to represent their fishing zone.

Each student will require a:

- straw,
- teaspoon and

- dessertspoon (representing their fishing technology) and
- cup or bowl (representing their fishing boat).

Each student will also require a copy of Student Worksheet: [Catch Log Sheet](#)

Steps

1. Discuss the concept of sustainability. What kind of equipment or technology is used in catching fish?
2. Instruct students they are all commercial fishers and they will be fishing for the highly sought after imaginary fish species called the Jaffafish (Lolly A). An incidental catch is the Chocolate buttonfish (Lolly B) which should also be retained but is less valuable commercially.
3. Arrange the class into groups of 4 or 5 students. Each group represents a different fishing zone or area.
4. Distribute to each group a bowl with about 20 lollies (mixture of A and B) to represent their fishing zone and fish. Each student receives a cup to represent their fishing boat.
5. Each student must catch at least 2 fish otherwise their commercial fishing enterprise goes bankrupt and must sit out for the remainder of the game.
6. The fishing season will last for 20 seconds (adapt as required).
7. In Fishing Season 1, students will use a straw as their fishing rod to catch their 'fish' and place into their 'fishing boats'. Students must keep their hands behind their back and suck on the straw to carry the lolly to their cup. If it misses the cup, the lolly must be returned back to the bowl and start again.
8. After the allocated time of the fishing season, enter data into Student Worksheet: [Catch Log Sheet](#). The remaining fish left in the bowl represent the spawning stock. For each remaining fish, 1 new fish (lolly) is added to represent recruitment. Sit out fishers who caught less than 2 fish.
9. Commence with Fishing Season 2. In this season students will use their hands on the straws to catch fish making capture easier. This change can represent the upgrade of the fishing gear from a fishing rod to a longline or dropline containing many baited hooks.
10. Repeat Step 8 for Fishing Season 2.
11. Commence with Fishing Season 3. In this season, students will use a teaspoon to catch fish. This change can represent the upgrade of the fishing gear from a longline or dropline to a fishing net.
12. Continue into Fishing Season 4 with the dessertspoon and beyond, whilst recording data into the Student Worksheet.
13. As fish stocks deplete, allow students to travel to other groups (fishing zones) to catch their fish.
14. Finish the game when fish stocks have been depleted.

15. At the completion of the game ask student how they felt when they depleted their fish stocks. What were the problems when other fishers joined groups (after their fish stocks were depleted)?
16. How does this activity relate to the real world? What is missing in the game (i.e. ecosystem effects, variable recruitment, species life history, and so on)?
17. Brainstorm ideas and methods to ensure the sustainability of fish stocks.
18. Run game again (optional) and establish some rules to ensure the sustainability the fish stocks. How is the fishery performing in comparison to the first running of the game?

Related resources

[Student Worksheet: Catch Log Sheet](#)
[Fact Sheet: Fisheries Management](#)

Keywords

fish, catch, commercial fishing, CPUE, effort, fishery, GPS, juvenile (fish), overfishing, population, recreational fishing, recruitment, sustainable yield, total allowable catch