

Lesson: Dominate

Phase of learning

Years 3 - 4, Years 5 - 6, Years 7 - 8, Years 9 - 10

WA Curriculum

K-10 Mathematics, K-10 Science

Region

North Coast

Summary

Students will demonstrate competition between species, competing for similar habitat resources.

Outcomes

- Students will demonstrate competition between species, competing for similar habitat resources.

Duration

1 hour

Preparation

You will require a large open space to run this lesson.

There are also some resources required to run the activity component of the lesson, listed below in the Teacher Resource Sheets.

Steps

1. Choose either Teacher Resource Sheet: [Fish Templates \(Southern Reef\)](#) or [Fish Templates \(Northern Reef\)](#). Print out and cut out enough fish (30 of each fish) and Teacher Resource Sheet: [Food Templates](#) (30) to run the game.
2. With the assistance of students, set up playing area and equipment as per Teacher Resource Sheet: [Dominate Playing Area](#).
3. In the middle of the playing area, place 12 chairs to represent limited habitat availability.
4. At one end, place four buckets along a marked line, each filled with one of the fish species

templates. At the opposite end is a recruitment area where students will wait to be tagged into the game, similarly marked with a line.

5. Off to each side place a bucket each filled with food templates.
6. To begin, select four students to represent each one of the fish species and instruct them to go and collect their fish template.
7. Explain to students these four 'fish' are competing for the resources of the same habitat to populate the reef and maintain a self-sustaining population.
8. Each fish must collect one food template per round. If not, they must return to the recruitment area.
9. Fish will run to their bucket of fish templates, take one and run to the recruitment area. The fish template is handed over and the student enters the game representing the populations of that fish.
10. Fish continue recruiting until the music stops or whistle is blown. All students must quickly find a chair to sit on to remain in the game. Any student not sitting down or holding a food template must return to the recruitment area in readiness for the next round.
11. Continue with further rounds.
12. Depending on time constraints and progress in the game, implement a mixture of the following actions.
 - remove chairs to represent habitat loss or degradation
 - remove 'fish' from the playing area to represent fishing pressure
 - remove some fish templates from one species to give others to a reproductive or migration advantage.
 - remove some food templates to represent ecosystem disruptions such as habitat loss/degradation, overfishing , pollution or natural variations.
 - add an introduced pest species
13. Reach a finish to the game. Debrief with students about how populations fluctuated or dominated during the game.

Teacher Resource Sheets

[Fish Templates \(Southern Reef\)](#)

[Fish Templates \(Northern Reef\)](#)

[Food Templates](#)

[Dominate Playing Area](#)

Related resources

[Teacher Resource Sheet: Food Templates](#)

[Teacher Resource Sheet: Fish Templates \(Southern Reef\)](#)

[Teacher Resource Sheet: Fish Templates \(Northern Reef\)](#)

[Teacher Resource Sheet: Dominate Playing Area](#)

Keywords

Abiotic, adaptation, biotic, competition, coral, ecosystem, flora, fauna, generalist, habitat, habitat preference, limestone, mangrove, niche, outcompete, seagrass, specialist