

# Hillarys School Excursion: Fishy Features

## Phase of learning

Senior Secondary (Years 11-12)

## WA Curriculum

SS Biology – ATAR, SS Biology – General

## Region

West Coast

## Summary

You can tell a lot about a fish by its physiology, such as where it lives, how it feeds, and how it moves through the water. Students will learn about the diversity of adaptations present in Western Australia's marine animals then examine a variety of fish species to identify their unique adaptations.



**Duration: 1 hour**

The Department of Primary Industries and Regional Development (DPIRD) sustainably manages Western Australia's aquatic resources and environments for the benefit of present and future generations. To do this, fisheries scientists in the Department have intensively researched a range of fish species to understand how to maximise management strategies that align with the biology of these species.

Fish, like all animals, have a range of adaptations that allow them to successfully inhabit their environment. Adaptations are specific characteristics of a living thing that increases the likelihood of its species survival in its habitat. Each species has their own suite of adaptations that can be broadly grouped into three categories: structural, functional, and behavioural. Many adaptations can be more than one type. For example, viviparous reproduction involves giving birth to live young. This involves the structural adaptation of a womb and may involve the behavioural adaptation of maternal care of young. You can learn more about the adaptations of different species in Fact Sheet: Fish Adaptations.

In this excursion, students will learn about the diverse range of adaptations of organisms across Western Australia as they listen to a brief presentation. Students will then work in groups to examine fish of five different species and identify how their physical features suit the environment in which they live and their position in the food chain.

Through the completion of this excursion, students will:

- Learn the difference between structural, functional, and behavioural adaptations.
- Identify the structural features of a variety of fish. Features include body shape, body cover, colouration, mouth location, eye size, and tail shape.
- Use the structural features of each fish to identify where that fish lives in the marine environment.

**Note:** Years 11 and 12 will also observe dissections of two fish to examine their internal structures. We will discuss the similarities and differences of the physical features of the two species and how these features are tied to each species' particular biology.

**Cost: \$5.00 per student**

**Pre-excursion and post-excursion resources:**

You may wish to explore the topics covered in this excursion prior to or following your excursion using the related resources below.

**Related resources**

[Hillarys School Excursion: Aquatic Natural Resource Management](https://marinewaters.fish.wa.gov.au/resource/hillarys-school-excursion-adapting-to-their-environment/)

[Poster: Behavioural Adaptations](#)

[Poster: Fish Adaptations](#)

[Poster: Structural Adaptations](#)

[Poster: Marine Habitats of Western Australia](#)

[Lesson: How fish live](#)

[Lesson: Glass animals, adaptations and biology](#)

[Lesson: Bioregions](#)

[Presentation: Fish Adaptations](#)

[Poster: Bony Fish - External Anatomy \(including information\)](#)

[Poster: Bony Fish - External Anatomy \(simple\)](#)

[Poster: Chemical Defence](#)