

Lab Study: Fish Biology

Activity Outline

Year Level 9-10

This activity introduces students to the morphology and physiology of fish. Students will gain an understanding of general fish characteristics and anatomy as well as an insight into various fish groups (class) through theoretical and practical first hand investigation. The activity aims to make students aware of the complexity of marine organisms and their adaptations. Students will gain an understanding on key morphological and physiological aspects of fish followed by a hands-on fish dissection to identify key anatomical features.

Key Understandings

- Multicellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment
- Fish morphology is related to how it has adapted to its surroundings.
- There are similarities and differences between the internal structures of humans and fish.

Key terms

Anatomical structures, buoyancy, energy production, excretion, lateral line, muscular coordination, osmoregulation, respiration, homeostasis, teleost, circulatory system, digestive system, reproductive system

Outcomes

This activity is designed to address the outcomes from the following BOS NSW Content Endorsed Course 4/5 syllabuses;

Marine and Aquaculture Technology; Years 7-10 Syllabus (2003)

Optional Module 29: Fish Biology

- Objectives 5.1.1, 5.5.1, 5.5.2, 5.6.1, 5.7.1, 5.7.2, LS.1, LS.2

Science; Australian Curriculum, Year 7-10 Syllabus (2018)

Year 9: ACSIS165, ACSIS166, ACSIS174, ACSSU175

Year 10: ACSIS199, ACSIS200, ACSIS208

Key competencies

- Collecting, analysing and organising information
- Communicating ideas and information
- Working with others and in teams
- Working scientifically
- Using technology