

Lab Study: Fish Biology

Activity Outline

Year Level 9-12

This activity introduces students to the morphology and physiology of fish. Students will gain an understanding of general fish characteristics and anatomy as well 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.

Key terms

Anatomical structures, buoyancy, energy production, excretion, lateral line, muscular coordination, osmoregulation, respiration, teleosts

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 Stage 4/5 Syllabus (2003);

• 5.8, 5.13, 5.14, 5.15, 5.16, 5.19, 5.21, 5.22, LS.2, LS.9

Key competencies

The following key competencies are essential components to student learning and as a result have been embedded within the above learning activity.

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

Activity description:

Students will be led through a PowerPoint presentation on fish morphology and physiology followed by a hands-on fish dissection to identify key anatomical features.