

Field Study: Mangrove Ecosystems

Activity Outline

Year Level: 7-10 (Stage 4/5)

Aim

In this activity students explore the ecology of mangrove ecosystems and gain an appreciation for the diversity of life which they possess. Students will examine the varying characteristics and adaptations that these life forms possess. Students will look at the whole ecosystem level and identify both positive and negative links between the study sites and adjacent ecosystems.

Key Understandings

- Ecosystems consist of both living and non-living components.
- Living things can be differentiated and identified using various characteristics.
- Energy continually flows through ecosystems.
- Matter cycles within ecosystems (i.e. carbon, oxygen and nitrogen)
- Human development and natural events can impact on the flow of energy and matter through different ecosystems.
- Appropriate ecosystem management relies upon an understanding of the varying relationships both within and between ecosystems.

Key terms

Abiotic, biotic, detrital, taxonomy, phylum, class, community, diversity, abundance, distribution, ecology, organisms, energy, sustainable management, ecosystem, environment, human impact, interaction, interconnectedness, matter, biogeochemical cycles, carbon, nitrogen, oxygen, dissolved oxygen, salinity, turbidity, water quality.

Curriculum Content

Science:

Year 7: ACSSU111, ACSSU112, ACSIS124, ACSIS125, ACSIS126, ACSIS129, ACSIS131, ACSIS133

Year 8: ACSSU150, ACSIS139, ACSIS140, ACSIS141, ACSIS145, ACSIS234

Year 9: ACSSU175, ACSSU176, ACSIS164, ACSIS165, ACSIS166, ACSIS170, ACSIS171

Year 10: ACSIS198, ACSIS199, ACSIS200, ACSIS203, ACSIS204, ACSIS205, ACSIS208

Key competencies

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