

Field Study: Sandy Shore Ecology

Activity Outline

Year 7 - 10

Aim

Within this activity students explore the ecology of coastal sandy shore ecosystems and gain an appreciation for the diversity of life they contain. Students examine the varying characteristics and adaptations that organisms inhabiting coastal sandy ecosystems possess. Students will identify organisms which inhabit sandy shorelines and examine a number of physical environmental factors which influence their distribution and abundance.

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 impact on the flow 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, desiccation, adaptation, predation, competition, herbivore, omnivore, carnivore, taxonomy, phylum, class, community, diversity, abundance, distribution, disturbance, ecology, organisms, sustainable management, ecosystem, environment, human impact, interaction, dissolved oxygen, salinity, redox, water.

NSW NESA – Science Years 7-10

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