

Creature Features

Critical Concepts

- The survival of living things depends on their ability to protect themselves, obtain food, water and oxygen, and reproduce.
- Animals and plants have special structures and behaviours to allow them to survive called adaptations.
- Marine organisms can be classified based on similar external structures
- Living things can also be classified according to how they obtain their energy i.e., whether they are producers or consumers such as herbivores, carnivores, scavengers or decomposers

Strategic Questions

- What special body parts do sea creatures have to protect them, to survive in their environment, to find food, to reproduce and to move?
- Identify the different shapes, colour and speed of movement of the animals? Is there a pattern? Do producers/consumers have similar characteristics?
- How do seaweeds and plants convert light energy to chemical energy?
- How and why does phytoplankton harvest light energy? How does water depth regulate phytoplankton production?
- What is the function of a skeleton, in a barnacle, sponge or fish?
- What is the relationship between the function (e.g. A holdfast on kelp) and survival?
- How do structures of living creatures increase their chances of survival?
- To what basic plan is a cell built? How do different types of cells combine to form simple marine animals and plants such as sponges or algae?
- What differences exist between plant and animal cells marine algae simple animals ?
- What is bioluminescence? How does bioluminescence assist in survival?
- How do cells regulate water transport and maintain water and salt balance? Why can't most marine organisms live in fresh water?
- In what ways is a complex cell organisms like a sponge similar or different from a single celled organism?
- How do plants such as zooxanthellae form a symbiotic relationship with marine organisms such as corals, anemone and giant clams.
- How do the features of living things help us to classify animals and plants into groups?
- What are the main groups of living things found in the Barwon Bluff Marine Sanctuary?
- What are some of the producers found at the Bluff? What are the main groups of consumers: herbivores? carnivores? scavengers? decomposers?