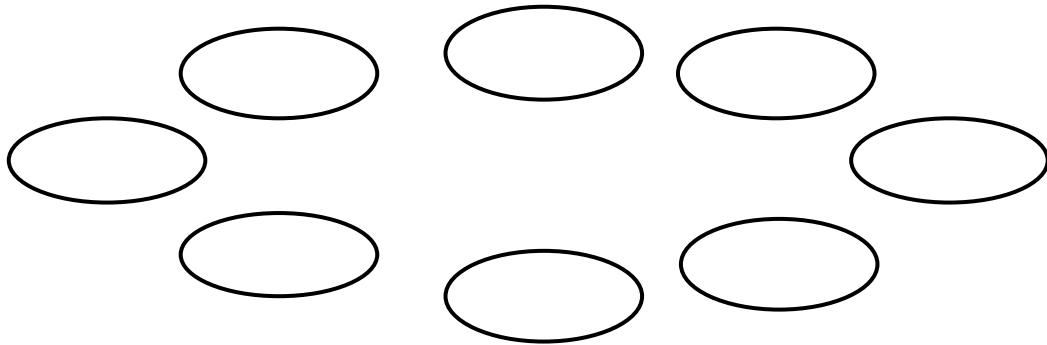




NAME: _____

Years 11 & 12

Coral Reef Ecology: Ecology is the scientific study of the interactions between organisms and their abiotic (non-living) and biotic (living) environment. In the circles below, list the abiotic and biotic components of a coral reef. Draw lines between the components that interact with each other.



What could happen if one component changed or disappeared?

Interactions: Interactions determine species distribution and abundance. Interactions include:

- Competition (-,-) is when organisms compete for a resource such as food, light or space.
- Predation (+,-) is when one organism benefits by eating something else.
- Mutualism (+,+) is when both organisms benefit.
- Commensalism (+, 0) is when one organism benefits and the other is not affected.
- Parasitism (+,-) is when one organism benefits but the other is harmed.

Can you spot any of these interactions at SEA LIFE Sydney Aquarium? Answer by completing the table below:

Tank	Interaction	Organism #1	Organism #2
<i>Coral Reef Tank</i>	<i>Competition for light and space</i>	<i>Hard coral</i>	<i>Soft coral</i>
<i>Note: Most fish contain natural parasites/</i>			

NAME: _____

Years 11 & 12

Knowing what, where and how many! Measuring biodiversity is important for conservation biology.

A simple way to measure biodiversity is to measure species richness (identify all organisms present) and species abundance (count the number of organisms present). Undertake a richness and abundance survey in the Shark Valley. Record your results in the table below:

Species Richness		Species Abundance
Organism	Description	Number of Individuals
1. Grey nurse shark	<i>spindle-shaped body</i>	

Look at the numbers of predators and prey in the Shark Valley. Would this be a balanced food web in the wild? Yes/No. Explain.

Rocky Shore Ecology: All aquatic animals want to live in water, but is it always safe? Rocky shore organisms are limited to where they can live by interactions between their physical and biological environment. Pick an animal from the Discovery Rockpool. Draw it in the box provided. Which tidal zone, in the picture below, does it fit

