

## Topic 4 Ecology

Use text/drawings to address these questions. Bullet points are enough.

- Define the terms: species, population, community, ecosystem, autotrophs, heterotrophic, abiotic environment
- What are the 3 modes of heterotrophic nutrition?
- What are the two ways in which organisms in a community obtain energy? Where does the energy go? Include text and drawing. (p 56 top)
- Where does the energy go, that is lost in a food chain? (p 56 bottom)
- Draw a sample food chain and also a pyramid of energy, which is fully labelled. Explain the shape of the pyramid.
- Draw the carbon cycle and explain the concept of fluxes and sinks. Summarize the carbon cycle in a few lines.
- Explain the role that combustion plays in the carbon cycle.
- Explain the biogeochemical carbon cycle.
- What role does limestone play in the carbon cycle?
- How are fossil fuels formed?
- Explain the greenhouse effect (text and drawing).
- Compare the warming effect of the greenhouse gasses.
- How are global temperature and CO<sub>2</sub> concentrations related?
- What effects does global warming have on the coral reefs?