

## Energy & matter through ecosystems - worksheet answers

### Glossary:

**Biomagnification:** When concentration of a toxic substance accumulates in the tissue of organisms increases as it moves through the food chain.

**Consumer:** organisms who consume their food ready made eg herbivores, carnivores parasites scavengers, detritivores, and decomposers

**Decomposer:** bacteria and fungi that break down the dead organism, with heat loss.

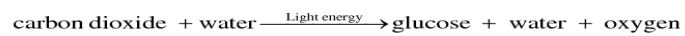
**Detritivore:** feed on the remains of dead animals and plants. They play an important role in the cycling of matter. Eg earthworms, snails, insect larvae.

**Ecosystem:** the system formed by organisms interacting with one another and their environment.

**Food chain:** organisms are linked together by what they eat eg kookaburra feeds on the skink that feeds on insects that feeds on the eucalypt leaves.

**Food web:** within one ecosystem, there may be more than on hundred food chains, linked together as a food web.

**Photosynthesis:** Most autotrophs, including plants and algae get energy from sunlight and carbon dioxide and water. Photosynthesis can be summarised in the following formula equation

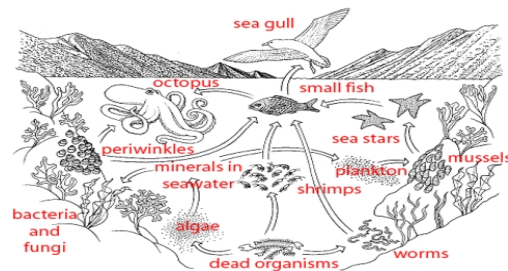


**Respiration:** is carried out by all plants and animals at all times to provide energy for cellular functions. It can take different forms, some require oxygen and some without.

**Trophic level:** different feeding levels in a food chain

### Questions:

1.



2. starfish

3. octopus, seagull

4. small fish, periwinkles

5. worms, shrimp, periwinkles, starfish

6. Bacteria, fungi

7. native grass, eucalypt trees

8. producers (autotrophs) convert carbon dioxide and water into energy that is used by other consumers. Convert inorganic substances to organic.