## Extension 2.1C 2.2AB Food Web

Read through the text. Design a food web and answer some questions from the following information.

The Torren River starts in the Adelaide hills as several small creeks join to form one larger creek. It is surprising how many organisms rely on the river for their existence.

Algae can be observed growing in the water, as well as water ribbons. On the water's edge, common reeds and bulrush grow. Water boatman are observed swimming in the water. They are eating the algae and reeds. Mosquito larvae also eat the algae while the freshwater snail eats both the algae and water ribbons. A long necked tortoise pokes its nostrils above the water. The tortoise eats the algae too, as well as feeding on snails, boatman and yabbies. The water boatman provides food for many species including fish, frogs, diving beetles and dragonfly larvae. The yabbies are scavengers, feeding on rotting plan and animal matter, while bacteria also help break down the dead material by digesting it and recycling nutrients in the food web. The mosquito larvae are considered a delicacy for several varieties of fish (such as the big-headed gudgeon or the congolli).

Birds are in abundance along the waterway. Pacific black ducks are feeding on fish, dragonfly larvae and diving beetles, while the occasional visiting pelican feeds on fish, frogs and dragonfly larvae. Black swans make a beautiful sight, bending their elegant necks to forage under the water grazing on the water ribbons, snails and an occasional fish. The white-faced heron makes a meal of the fish and frogs. The purple swamp hen runs quickly from the bulrushes where it feeds on the tender growth of the bulrushes and also makes its nest. On the bank a blue-tongued lizard is sunning itself in a warm rock. It snaps at the dragonflies and diving beetle and beware the unwary frog, the lizard will sometimes eat them too.

- 1. Use the pictures provided to construct a food web on the back of this paper. It is best to start with producers on the bottom and draw arrows to show the flow of energy from the producers through the food web.
- 2. Divide the organisms into the following categories:

Producers	Primary Consumer	Secondary Consumer (and higher)

- 3. Which of the organisms contain chlorophyll? Are they producers or consumers? How do you know?
- 4. Pick a food CHAIN from your web with at least 4 organisms. Place them in order of energy flow from the sun.

 $SUN \rightarrow \rightarrow \rightarrow \rightarrow$ 

- 5. Which organisms are decomposers? Where do they live? Where do they fit in your food web?
- 6. What would happen to the organisms if an oil spill occurred nearby?
- 7. What would happen to the organisms if all the fish were killed?
- 8. What would happen to the organisms if there was a drought?