Read through the text, design a food web and answer some questions from the following information:

The Torrens River starts in the Adelaide hills as several small creeks which join to form one larger creek. As it winds its way down the hills to the city, more and more water is added. It generally only flows in winter when the rainfall is sufficient, and dries up into small waterholes during the summer. A weir is used to hold water permanently in the city. 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 *(Triglochin procerum)*. On the water edge, fluffy topped reeds such as the common reed *(Phragmites australis)* and the bulrush *(Typhus sp)* grow. Water boatman are observed swimming in the water. They are eating the algae and reeds. Mosquito larvae also eat the algae while the fresh water 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 plant and animal matter, while bacteria also help break down this dead material by digesting it and recycling nutrients in the food web. The mosquito larvae are considered a delicacy for frogs (such as the common froglet) and 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-tongue 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. Now complete your food web
It is best to start with the producers and build up. When you are happy with your placement, glue/write the animals in place and complete the arrows to show the flow of energy. You may need to read through parts of the text again.
 (Note: Teachers: you may wish to photocopy the animal sheet for students to cut out and place on an A4 sheet. This will enable them to shift animals and plants around to best fit the intricate food web.)

2. Divide the organisms into the following categories:

Producers	1st Order Consumer	2nd Order Consumer (and higher)

3. Which of the organisms contain chlorophyll? Are they producers or consumers? How do youknow?_____

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4. Which organisms feed on algae?_____

5. Which organisms feed on fish?_____

6. Find a food chain from your web with at least 4 organisms. Place them in the pyramid with the producer at the bottom and the highest order consumer at the peak. Estimate numbers of organisms for each level (their population) in that habitat. It should decrease as it goes higher. Infer or explain why this happens.
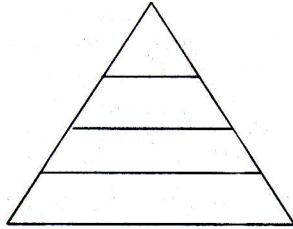
7. The decomposers. What organisms are decomposers? Where do they live? What do they do? Indicate where they fit in your food web.

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8. Predict what would happen to the organisms if:
   a) an oil spill occurred nearby
   b) all the fish were killed
   c) several house owners nearby fertilised their lawns followed by a big rain.
   d) the weather is warmer than usual and less rain falls

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Wetland
Food Web Images

water ribbons

algae

mosquito larvae

bulrushes

frog

heron

mosquito

reeds

dragonfly

fish

swamp hen

freshwater snail

lizard

water boatman

diving beetle

dragonfly larvae

tortoise

black swan

pelican

yabby

duck