

## WILDLIFE WEB

### Objectives

To simulate a working ecosystem on a farm by exploring the different food webs that exist between particular plants and animals.

### Duration

40 minutes

### Group Size

Best with a group of 15—20 students

### Setting

Best conducted outside or in a large room

### Materials

- Wildlife web cards with lanyard
- String (8 balls)
- Scissors

### Background

Students will gain an understanding of what biodiversity is and why it is important. They will learn about different plants and animals and explore how they fit together in food webs.

They will also look at what can happen to the ecosystem (plants and animals within the food web) when they are effected by outside factors.

### LESSON PLAN

#### Introduction (7 minutes)

Provide students with a brief background on the importance of biodiversity:

- The definition of biodiversity is:
  - the variety of life forms (different plants, animals, birds, insects, reptiles and fish);
  - the genes they contain; and
  - the ecosystems they may establish
- The Murray catchment has a lot of different landscapes which support important biodiversity, some which isn't found anywhere else in Australia.
- The Murray catchment has more than 110 threatened species including plants, birds, mammals, amphibians, and fish.
- Biodiversity is under pressure from different threats including:
  - Clearing native vegetation
  - Overgrazing
  - Pest plants and animals
  - Removal of falling timber

#### Setting the Scene (3 minutes)

Explain that biodiversity within the landscape exists within ecosystems depending on where the plant or animal lives (habitat) and what they rely on to survive (eg. food).

Animals within the ecosystems rely on other animals and plants for survival. Some animals eat plants only

while others eat animals as well. By looking at what animals (wildlife) eat we can get an understanding of the different food webs that exist in different ecosystems.

Today we will be looking at different plants and animals and how they interact together to form food webs.

### Activity (25 minutes)

Suggested format is as follows but can be adapted depending on time and number of students

1. Allocate a plant or animal card to each student
2. Ask students to make a large circle
3. Ask the students to read the cards to themselves and find out where their plant or animal lives (habitat) and what they eat or are eaten by
4. Place one or two students (or a teacher/ helper) in the centre of the circle with the balls of string. They can be the sun.
5. Start with any student and ask them to identify what their habitat is and what they eat (eg. Kangaroo eats Kangaroo grass)
6. Ask the Kangaroo grass to put their hand up
7. The person in the middle gives one end of the string to the Kangaroo and the other end to the Kangaroo grass to hold
8. As the Kangaroo grass who else uses them for habitat or food (eg. insects)
9. Roll out the string and ask the insects to hold the string
10. If nothing else relies on the insects, cut the line and start again with a new animal and new web, otherwise continue.
11. Continue in this format, after a while there will be a range of webs and students may exist in more than one web.
12. Once the webs have been created start to add in effects by asking the students a number of questions and discuss the scenarios. For example:

- What if the Kangaroo grass dies? (All students connected to the Kangaroo grass have to sit down).
- What if the water quality decreases?
- What if Pesticides are used and kill all the invertebrates (insects)?
- What if the River Red Gums are cut down and removed?
- What if all the dead trees and leaf litter is cleaned up in a paddock?

### Conclusion (5 minutes)

Discuss the activity with students and ask them a number of questions to find out what they learnt:

- What is biodiversity?
- Why is biodiversity important?
- How do different animals work together within a landscape?
- How can changes in the landscape effect biodiversity?

### Extension Activities

- Ask students to design their own food web
- What do they eat, what else relies on that food
- As a class make a wall chart of the web of life that they are a part of. Use pictures, words and string to create the chart.
- Biodiversity heads activity (included in the Murray CMA Biodiversity Toolkit)

### More information

Contact Sandy Dellwo, Land Services Officer – Education on 03 5880 1415.

### Acknowledgements

This activity has been adapted from 'Meet the Locals' by LandLearn Victoria. For more information visit: [www.landlearn.net.au](http://www.landlearn.net.au)

the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of Local Land Services or the user's independent adviser. For updates go to [www.lls.nsw.gov.au](http://www.lls.nsw.gov.au)