Objective

By the end of this lesson, you will be able to construct and interpret food chains and food webs, with examples from Australian ecosystems.

Materials and Prep

- Pen and paper
- Access to the internet or books about Australian ecosystems

Activities

1. Activity 1: Constructing a Food Chain

   Choose an Australian ecosystem and identify three different organisms that exist within it. Write down the names of these organisms and their roles in the ecosystem. Use this information to construct a food chain, starting with a producer and including a primary consumer and a secondary consumer.

2. Activity 2: Creating a Food Web

   Expand on the food chain you created in Activity 1 by adding more organisms and their interactions. Research additional organisms that are part of the chosen Australian ecosystem and identify their roles. Use this information to create a food web, showing the interconnectedness of organisms and their feeding relationships.

3. Activity 3: Analyzing the Food Web

   Examine the food web you created and answer the following questions:

   - Which organism is at the top of the food web?
   - Which organisms have the most connections?
   - What would happen if one organism in the food web disappeared?

Talking Points

- "Food chains show the flow of energy in an ecosystem. They start with a producer, which is usually a plant that can make its own food through photosynthesis."
- "Primary consumers are organisms that eat producers. They are herbivores, which means they only eat plants."
- "Secondary consumers are organisms that eat primary consumers. They are usually carnivores or omnivores, which means they eat other animals."
- "Food webs are more complex than food chains. They show the interconnectedness of organisms in an ecosystem and how energy flows between them."
- "In an Australian ecosystem, for example, a food chain could start with a eucalyptus tree as the producer, a koala as the primary consumer, and a dingo as the secondary consumer."
- "When constructing a food web, remember to include multiple food chains and show the different

feeding relationships between organisms."

- "The top of the food web is occupied by organisms that have no predators. They are usually at the highest trophic level and play an important role in controlling the population of other organisms."
- "Organisms with the most connections in a food web are often referred to as keystone species. Their presence or absence can have a significant impact on the entire ecosystem."
- "If one organism in the food web disappears, it can have a ripple effect on other organisms. For example, if a predator disappears, the population of its prey may increase, which can then impact the availability of food for other organisms."