

LESSON PLAN The Eco-Web

GRADE Grade 7 AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YK

SUBJECT Sciences

TIME NEEDED 40 minutes

VOCABULARY

- Food webs
- Food chains
- Habitat requirements
- Effect of habitat loss on survival
- Ecosystems
- Interconnectedness
- Interspecific
- Interactions
- Biodiversity



Started in 1994, EcoKids is a free Earth Day Canada environmental education program that offers curriculum-linked materials and activities for Canadian elementary schools to engage in environmental action. For more information visit www.ecokids.ca

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LEARNING OBJECTIVES/OUTCOMES

An interactive, experiential activity that helps students develop an understanding of interconnectedness in ecosystems and the importance of biodiversity.

MATERIALS REQUIRED

- Food Web Cards, with strings attached to allow them to hang around students' necks (**Annex 1**)
- Ball of yarn

DESCRIPTION OF ACTIVITY

Teacher instructions:

1. Have students form a circle, wearing their nametag cards around their neck so that everyone can see them. They will represent this species in the ecosystem. Tell them that you are going to try to create a web of life, and that for this game you will be the sun.
2. Hold the ball of yarn in your hands and, holding one end, pass it to one of the plant species around the circle. Explain that the sun provides energy to plants, and that they need you to survive.

3. The plant species may now pass the yarn, continuing to hold their portion of it, to any other species that needs them, or that they need. They must explain why that species needs them or why they need that species.
4. From then on, species who receive the yarn may pass it to any other species that **they need to survive** or that **needs them to survive**. Remind them to **explain** why they are passing the yarn to a certain species. Species may receive the yarn more than once; these often represent important species in an ecosystem. The yarn continues around and across the circle, forming a tangled web.
5. Explain that this web represents a natural ecosystem, sometimes called the Web of Life. Ask students what species in this ecosystem are particularly important; for example, trees provide shelter and salmon are a food source for many species. Ask students to predict what would happen if one of these important species was removed from the ecosystem.
6. Choose one of the important species and remove it from the web. On the count of three, with the web pulled taut, have the important species drop all their strings. Ask if other species felt one of the strings in their hand go slack as a result. Have those species let go of their strings. Continue until the web has fallen apart.

Debrief:

End with a discussion that may include the following questions:

1. Does this web mirror a real life ecosystem? Why or why not?
2. What species are humans connected to in the web?
3. How would humans be impacted if those species were removed?
4. How might humans impact the ecosystem the students created? For example, global warming, unsustainable use of resources, development, etc., may disrupt food chains and cause habitat loss, damaging ecosystems.
5. Define biodiversity. Why is it important to maintain biodiversity in ecosystems?
6. What choices can humans make to maintain biodiversity?