



FOOD CHAINS AND WEBS LESSON PLAN

Introduce students to food webs and food chains using the wildlife of Galapagos for illustration. This section explains how energy transfers through the food chain and web, as well as demonstrating the interactions of species within a food web.

Resources required: food chain handout, food web handout, species photo cards, access to interactive, sticky labels for children, ball of wool or string.

1. FIRE STARTER

Recap key words including food chain, food web, producer, consumer, and apex predator.

2. GAINING GROUND

Explain that energy is transferred through an ecosystem by consumption. Introduce food chains and food webs as a way of visualising this transfer. Be sure to emphasise the direction in which energy flows, and therefore the direction in which the arrows point. Use the [food chain and food web handouts](#) to work through with students. *You may need to further explain levels of consumers.* Images of species can be found on the [species photo cards](#).

3. MAKING WAVES

To demonstrate how animals interact within food webs, play a game with the students. On individual sticky labels write species names that make up various food chains.

Give each student a label. One student will be the sun, they will need to hold the ball of wool and stand in the middle with the others making a circle around them. Read out a food chain that the students have studied and pass the ball of wool from producers to consumers in turn. The ball of wool then goes back to the sun, and another food chain is read out. It shows the interdependence between species and reveals what happens to other species in the food chain should one suffer a setback. For example, describe a decrease in marine iguana numbers during El Niño and tug on the strings attached to the iguana. The Galapagos hawk should feel a tug, as they are predators of the iguana. Discuss implications.

4. FUTURE FOCUS

Students choose a selection of species using the species fact files on the site to create their own annotated food web of the Galapagos. Share their work.

LEARNING OBJECTIVES:

- To understand and recognise the terms food chain and web.
- To identify species that make up a food chain and web in Galapagos.
- To know that energy is transferred up the trophic levels through consumption.
- To understand the inter-relationships between species in a food web.

STUDENTS' OUTCOMES:

- To give examples of species that make up different food chains and webs from different habitat zones of Galapagos.
- To explain how food chains and food webs illustrate the transfer of energy between species.
- To explain the consequences on a food chain or web, should a species suffer a setback.

KEY VOCABULARY:

Food chain, food web, trophic level, producer, consumer, primary, secondary, tertiary and quaternary consumer, apex predator, interact, interdependence.