



Interdependence in food webs

- Biodiversity
- Interdependence



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take a look at our range of training courses: itl.org.uk/outdoor-learning-training

Previous learning required

- An understanding of the terms **producer**, **herbivore**, **carnivore**, **predator**, **food chain**, and **food web**

Learning outcomes

- To consolidate understanding of the interconnectedness of all living things and to visualise the concept of biodiversity **interdependence**

Equipment

- A ball of string
- An open outdoor area
- Coloured chalk
- A camera or iPad

Activity

1. Walk around the school grounds with the pupils and ask them to suggest examples of local organisms. Encourage them to think about plants, trees, invertebrates, and vertebrates.
2. Gather the pupils in a circle and explain that they are going to build a school grounds food web.
3. Ask anyone who thought of a **producer** (a plant) to raise their hand. Starting from the string end, pass the ball around these children and ask them to hold the string tightly with one hand.
4. Next, ask those pupils who thought of a **herbivore** (primary consumer) to raise their hands.
5. Continue the same process for each level of the food chain, identifying **carnivores** (secondary consumers) then **predators** (tertiary consumers) until every pupil is holding a section of string.

6. Explain to the pupils that they have created a visual representation of a food web that shows how all species are **interdependent**.

7. To further demonstrate this concept, act out a scenario which disturbs the food web – for example, contractors spraying herbicide on all the flowers. All **producers** should start to gently shake the string they are holding. Anyone who feels the shaking must also shake the string they are holding to demonstrate the impact of the herbicide on all other living things.

Check for understanding

1. Discuss the outcome of the string activity with the pupils and ask them to explain the results.
 - The string activity demonstrates that damage to one part of a food web has an impact throughout.
2. Ask pupils to work in small groups to devise and draw their own school grounds food web on the tarmac using coloured chalk.

