

MODEL SESSION PLAN

Topic:

Food Chains in Ecosystems

Subject: Sciences

Student's age: 9-11 years old

Duration of session: 1 hour

Objectives



By the end of the lesson, the student will successfully create a food chain diagram in Popplet with at least 5 correct links, including a producer, primary consumer, secondary consumer, and decomposer, accurately representing the flow of energy within a forest ecosystem.

Material/resources



- iPad or laptop with internet access
- Popplet account or access to the Popplet app
- Printed pictures of various organisms (optional for inspiration)
- Science book or digital resources to look up ecosystem details (e.g., forest, pond)



Description of the lesson

Introduction - 10 min

Begin the lesson by engaging the student with a brief discussion about ecosystems. Ask them what they know about how animals and plants are connected. Introduce the concept of a food chain as the flow of energy from one organism to another within an ecosystem.

Key Questions:

What do plants need to grow?

What do animals eat?

How do all living things depend on each other?

Once you've established the basics, introduce the three main parts of a food chain: **producers** (plants), **consumers** (animals that eat plants or other animals), and **decomposers** (organisms that break down dead plants and animals).



Tips: Use real-life examples the child might know, like a leaf-eating caterpillar and a bird that eats insects.

Exploration - 15 min

Choose a specific ecosystem with the child. Let them decide whether to focus on a forest, pond, or another ecosystem of interest. Explain that they will create a food chain for this ecosystem.

Provide them with examples of organisms from their chosen ecosystem. For instance, in a forest ecosystem:

- Producers: Trees, bushes, grass
- Primary Consumers: Insects, deer, rabbits
- Secondary Consumers: Birds, foxes, snakes
- Decomposers: Fungi, earthworms, bacteria





Description of the lesson

Go through each category together, ensuring the child understands each organism's role in the food chain.

Activity: Creating the Food Chain in Popplet (20 minutes)

Now, move to the hands-on part of the lesson. Open the Popplet tool and create a new Popplet project. Work alongside the child, guiding them through the process of building a food chain for their chosen ecosystem.

Steps:

1. Start with the sun as the energy source in the middle of the Popplet.
2. From the sun, create a branch leading to a producer (e.g., a tree).
3. Continue adding bubbles for the next links in the food chain: primary consumers, secondary consumers, and decomposers.
4. Add arrows between the organisms to indicate the flow of energy from one to the next.

Encourage the child to include images and descriptions in each bubble to explain the role of each organism.

Discussion and Reflection (10 minutes)

Once the Popplet food chain is complete, have the child explain it back to you. Ask them to walk through the different parts of the chain and describe how energy moves through it.

Reflection Questions:

- Why do plants start the food chain?
- What happens if one part of the food chain is removed?
- How do decomposers help the ecosystem?

Encourage the child to think critically about the connections within the ecosystem and what might happen if one element is disrupted.

Conclusion (5 minutes)

Wrap up the lesson by summarizing the key points about food chains and ecosystems. Praise the child for their effort in creating the Popplet, and suggest they use their food chain for future study or share it with family members.



Tips: You can extend the activity in the next session by creating a more complex food web, incorporating additional organisms, or discussing how human activities affect ecosystems.

- You could adapt this lesson based on the child's interests. For example, if they enjoy marine life, focus on an ocean ecosystem.
- Incorporate some hands-on exploration if you have access to outdoor space by observing real organisms that could fit into a food chain (e.g., looking for insects and plants in a park).

