Ecosystem
Teacher Guide

Student learning outcome (SLO):

• Recognize what is an ecosystem. • Explain biotic and abiotic factors. • Recognize the interaction between plants and animals. • Importance of balancing within an ecosystem. • Describe a few food chains.	• Identify and describe common predators and their prey. • What animals eat? • Explain that some living things compete with each other for food and space. • Recognize the value of balanced ecosystem. • Ways of preserving ecosystems.

Overview:
The main purpose of this lesson is to help the students to understand the interdependence of living organisms and their environment. It fosters ecological awareness, emphasizing the importance of biodiversity for a balanced and sustainable planet.

Introduction:

Lead the students in learning about,

'**Ecosystem'.**

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Video of the lecture can be shown to the students as well.

https://youtu.be/sKJoXdrOT70?si=s_Ai9Yg_YITAF9GU	
https://youtu.be/2bOdK2I76ko?si=PpkQopLiCR0dAxti	

Keywords:
Biodiversity, ecological interaction, food chain, habitat, climate change, ecological succession, biomass.

Material:
- Two plastic bottles
- Scissors
- Thread
- Water
- Soil
- Small plant

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Activity:

- Cut the bottles as shown in the picture. Make a hole in the cap of one bottle.
- Fixed the bottles.
- In the first bottle pour water to show aquatic ecosystem. In the second bottle, put soil and a small plant to show the land ecosystem.
- Now connect ecosystems of both the bottles (connect with water with a thick thread) so that the plant may receive water and minerals. Observe it daily.

Essential questions:

Before starting the lesson, ask some questions to explore the background knowledge of students:

1. What is an ecosystem?
2. How do living and non-living things interact in an ecosystem?
3. What is the role of plants and animals in maintaining balance in an ecosystem?
4. How does energy flow through an ecosystem?
5. What are some examples of different ecosystems?
6. How can human activities impact the health of an ecosystem?
7. How can we contribute in conserving an ecosystem?