Zacky's Wacky Web: An Interactive Food Web Group Activity

Designed by Tarana Peaches

Objective: To illustrate the interconnectedness and energy flow within an ecosystem using a hands-on, visual representation of a food web. This activity encourages active participation and helps students understand how each organism in an ecosystem is linked to others.

Group Size: Ideal for 10-25 participants. This size allows for a diverse range of organisms in the food web while remaining manageable for group interaction.

Target Audience: Particularly effective for elementary-aged students and also suitable for middle school students, studying ecosystems and environmental science. It caters well to kinesthetic learners, providing a hands-on and visual approach to learning.

Pre-Activity: Enhance the learning experience by reading ***"Wacky Zacky Bugs Out"*** to the students. Authored by Tarana Peaches and illustrated by Henrique C. Rampazzo, this engaging story provides a fun and relatable context for introducing the food web concept, making the activity more impactful and memorable, particularly for the younger audience.

Materials:

1. **A large ball of yarn:** Used to visually represent the connections within the food web.
2. **Name tags or labels:** Choose a specific ecosystem (e.g., grassland, forest, arctic, ocean) and prepare name tags for various organisms appropriate for the chosen ecosystem. Categories to include are Producers, Consumers (Herbivores, Omnivores, Carnivores), Decomposers, and Detritivores (a more complex addition for middle school students).
3. **Sun Representation:** Create a special name tag or symbol for the sun, ideally represented by the teacher or facilitator.

Instructions:

1. Starting the Activity: Each participant wears a random name tag/ label representing an organism and together they form a circle.

2. Creating the Food Web: The person representing the sun begins by holding the end of the yarn and tossing it to a participant representing a producer (e.g., grass).
The producer holds onto a part of the yarn and then tosses it to a herbivore (e.g., zebra), explaining their role in the ecosystem and why they are passing the yarn to this specific organism.
Continue this process with each participant explaining their role and the reason for their connection in the ecosystem as they pass the yarn. Follow the order from herbivores to omnivores/carnivores, then to detritivores, decomposers, and back to producers.
Ensure that each participant gets a turn, forming a crisscrossing web with the yarn.

3. Discussing the Food Web: Once the web is created, facilitate a discussion about the food web. Ask questions such as, "What happens if one organism, like a herbivore, disappears from the ecosystem?"
To visualize the impact, encourage the participant representing that organism to drop their section of the yarn. This action will demonstrate the disturbance in the web, highlighting the interconnectivity of each organism and the effect of one species' removal on the entire ecosystem.

Conclusion:

- Emphasize the concept of interdependence in ecosystems and the importance of every organism within the food web.

Check for Understanding:

- **Each participant answers:** "How does the removal of one species affect the others?" Alternatively, they can reflect on what might happen to an ecosystem if a specific group of organisms, like decomposers, were removed and how this would impact the balance of nature.