WASATCH COMMUNITY GARDENS

Garden Lesson: Ecosystem Web

AGE GROUP: GRADE 5 & UP TIME TO COMPLETE: 15-20 MIN

INTRODUCTION

Give your students a fun way to explore and deepen their understanding of our planet's incredible ecosystems! We love our Ecosystem Web activity—it's simple, engaging, and educational. All you need is a ball of yarn and your students. Everyone stands in a big circle and takes turns contributing ideas. By the end, the group will have created a web-like model that visually demonstrates how everything in an ecosystem is interconnected. Connect this interactive lesson to a broader ecology curriculum.
Read on for instructions, which include two setup options and a discussion section.

LEARNING OBJECTIVES

- Students will engage in group discussions, using reasoning to explain connections between organisms and evaluate the importance of biodiversity in maintaining ecosystem health.
- Students will predict and explain how disruptions (e.g., species extinction, drought, habitat destruction) impact the stability of an ecosystem.
- Students will be able to categorize and describe abiotic and biotic components of an ecosystem and explain how they are connected.

STATE STANDARDS

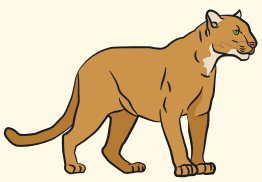
Standards 5.3.3 & 6.4.4

OPTION 1: STUDENT-PICKED COMPONENTS

1. Pick anything you might find in nature and share it with the group.
2. Hold onto the end of the yarn and toss the ball to a student. Keep holding the end to maintain a connection.
3. The student names something in nature that connects to what you picked. It could be something that eats it, lives in it, shares a resource with it, etc. (e.g., a bee pollinates a flower, a hawk eats a mouse).
4. Ask the student to explain how the two things are connected.
5. The student then holds onto a piece of yarn and tosses the ball to someone else, repeating the process.
6. Continue until everyone has had a turn and a complete web has been created.
7. Move on to the discussion section.







OPTION 2: ASSIGNED COMPONENTS

If you feel that your students would benefit, you can assign each one of them an ecosystem component from the list below (high desert ecosystem). Any student who thinks they are connected to the first student raises their hand and catches the yarn. The second student describes how the two components are connected. Repeat. This may remove some of the pressure of thinking of an ecosystem component and help students focus on the connections. You could even try both methods!

- River
- Lake
- Soil
- Sand
- Mountain
- Open Field
- Prickly Pear Cactus
- Desert Marigold Wildflower
- Pinyon Pine Tree
- Pronghorn
- Grasshopper
- Rattlesnake
- Roadrunner
- Golden eagle
- Mountain lion
- Mushroom
- Beetle

DISCUSSION

- Where might we find this ecosystem? What would we call it?
- What else might be part of this ecosystem?
- What are some challenges this ecosystem might face? What would happen as a result?
- Choose a student and tell them their component has gone extinct or disappeared (e.g., water dries up, hawks go extinct). Have them drop their strand, then have anyone directly connected do the same. Continue until everyone lets go. This visually demonstrates how every part of an ecosystem is essential.
- You could even do 2 or 3 rounds to explore more ecosystem connections.