

ACTIVITY

Is There Biodiversity in Our Backyard?

You and your team will investigate the interactions of living things in an outdoor area near your school building. After you have completed the activity, respond to these questions in your journal.

- ▶ What kinds of living things inhabit your area?
- ▶ How are they connected to each other?
- ▶ What observation skills are required to observe living things in the field?

Gather with your team and choose a captain and a note taker for today. Before you begin your investigation, consider with your team what you already know about the interactions of living things in the area you will observe today. Use the questions below to structure your discussion and record your notes in your journal.

- ▶ What living things, other than humans, might you be able to observe in your area?
- ▶ How are these organisms connected? How do they depend on each other? How do humans interact with these organisms?

The captain will appoint group members to collect the required materials while the rest of the group reviews today's procedure. Before beginning, the captain will make sure that the group has all required materials, and that everyone knows the day's procedure.

The note taker will take notes on the group's findings for your team. Remember to record your observations and explanations in your journal for your own research notes. Include drawings to illustrate your findings.



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MATERIALS

- activity sheet
- journals

NOTE: Magnifying glasses, binoculars or other observing tools may also come in handy.

PROCEDURE

1. Go outside and investigate the interactions of living things at a site near your school building. This might be a grassy or wooded spot, a patch of sidewalk where things are growing, the edge of a pond or even someone's front yard. Before you begin your field study, develop your hypothesis: What kinds of living things do you think you'll find? How do these living things interact with each other? On what do they depend for survival? Record your ideas on the activity sheet and take notes in your own journal.
2. Review safety procedures and other rules for field studies. Take your activity sheets with you and use them to guide your investigation.



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GROUP WORKSHEET 1
TEAM _____

GROUP MEMBERS _____

CAPTAIN _____ NOTE TAKER _____

- Before you begin your field study, develop your hypothesis: What kinds of living things do you think you'll find? How do these living things interact with each other? On what do they depend for survival?
- Use more than one sense to make your observations. You can use sight, smell, hearing and touch to investigate your site. Never try to taste anything. Use the chart below to record your observations.

| WHAT DID YOU OBSERVE? | DESCRIBE WHAT YOU SAW | DESCRIBE WHAT YOU SMELLED, HEARD, TOUCHED |
|-----------------------|-----------------------|---|
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GROUP WORKSHEET 2
TEAM

3. Look over your original hypotheses. What organisms did you find? What interactions did you observe? Which of your discoveries were unexpected?

4. How much biodiversity did you observe at the site? Estimate how many different types of organisms (species) you observed. Estimate the total number of living organisms observed. Calculate the biodiversity index by dividing the number of species by the total number of organisms. Is that a lot of biodiversity or a little? Explain.

5. What further questions do you have about biodiversity in your area? How might you find the answers to your questions?

GROUP DYNAMICS

Comment on how each group member participated in today's discussion.