



Exploring Changing Environments

Research Objective: Observations & Data Collection

Description

Scientists don't always use numbers to study the world around them. Qualitative observations are descriptions of what we can see, hear, smell, and feel without measuring with numbers. By returning to the same location over time, scientists can notice how an environment changes.

In this activity, you'll choose an outdoor spot and make it your observation site. You'll return to the same spot each day and record what you notice. Over time, you'll be able to compare your observations and look for changes in plants, animals, weather, sounds, colors, and other features of the environment. At the end of the semester, you'll look back at your observations and tell the story of how your environment changed.

Procedures

1. Find a spot outside that you can safely and easily return to each day. Choose a location with things you can observe, such as plants, trees, insects, or other signs of wildlife.
2. Once you choose your location, try to return to the same spot each day. Keeping your observation site the same will make it easier to notice changes over time.
3. Spend a few minutes quietly observing your surroundings. Look closely and use your senses to notice what is happening around you.
4. Record qualitative observations. Write down what you see, hear, smell, or feel. Describe details such as colors, textures, sounds, plants, animals, weather, or anything else that catches your attention.
5. Draw what you see. Create a quick sketch of your observation site. Add details that help show what the environment looks like that day.
6. Look for changes. Compare your observations with previous days. What looks, sounds, or feels different? What has stayed the same?
7. Keep observing. Continue visiting your observation site throughout the semester. Try to notice something new each time, even if the changes are small.

Materials

- Safe, accessible field site
- Observation Sheet
- Writing Utensil
- Colored Pencils

Tips

- Stay in the same spot. Returning to the same location each time helps you make fair comparisons and notice changes over time.
- Look closely! Pay attention to small details like new leaves, insects, tracks, sounds, colors, or changes in the ground.
- Be curious, not judgmental. There are no wrong observations! Record what you actually see, hear, smell, or feel rather than what you expect to find.



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Student Investigation

Site Location: _____

Date	Qualitative Observations	Sketch



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Site Location: _____

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Site Location: _____

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