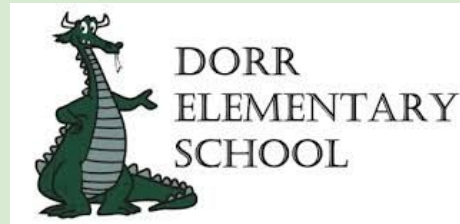


How does plant diversity compare between the school prairie and the school playground?

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[4th Grade Science]

Advisor Names: Mrs. Kristy DiSalle, Dr. Jodi Haney



Our Team

Photographer:
Mrs. DiSalle



Experimenter:
Zayla Miller



Data Recorder:
Myson Davis
Gabriella Old

Why are Native Prairies Important?

- Prairies have a four fold population in plant variations compared other places

They also have:

- Triple the abundance
- Two times as many birds as there were
- 40% less runoff
- 95% less soil loss
- 90% less phosphorus export



Research Question & Hypothesis

RQ: How does plant diversity compare between the school prairie and the school playground?

Hypothesis: We think there will not be as many plants on the playground than the prairie, because of the playground equipment, rocks, mulch, and kids prevent a variety of plants from growing.

Research Abstract

Our team researched plant diversity in the prairie and the playground. The data tells us that there are more plants found in a native prairie than a school playground. Prairies are good for our environment, because they have a four-fold population in plant variations, twice as many birds as there were, 40% less runoff, 95% less soil loss, 90% less fertilizer export. Some solutions to benefit our environment is to plant more native flowers and plants to create habitats for our native animals and pollinators. Provide a bird bath or ponds for fish in your prairie or yard if you don't have a water source for them. If we plant more native flowers and plants to create habitats for our native animals and pollinators, then the native animals and pollinators will have a place to live and eat.

Variables

- Independent variable:

The location was the independent variable. We counted the plant diversity in both locations.



- Dependent variable:

The plant diversity was the dependent variable. The plant diversity was measured in the number of different plant types counted.

Materials

1. Plant checklist X2
2. Clip board
3. Pencils
4. Dry erase marker
5. GLOBE cloud chart



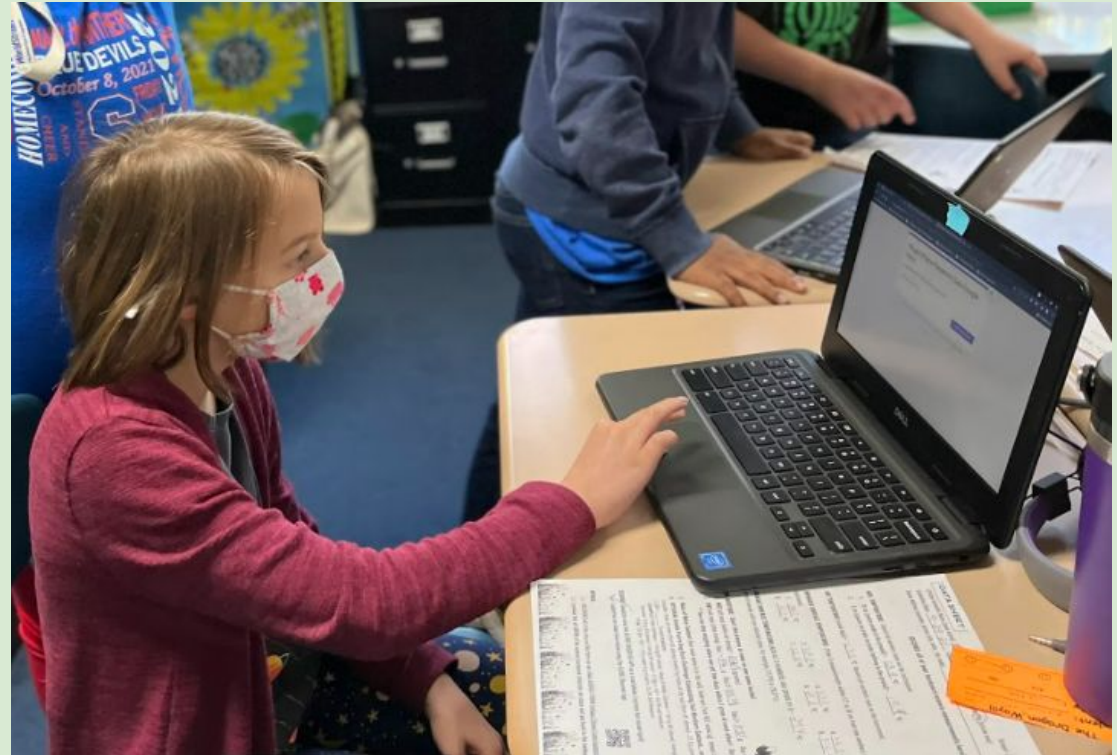
Step by Step Procedures:

1. Go out to the prairie and go right to the middle of it.
2. Look at all of the different plants and identify them.
3. On checklist, mark the different types of plants observed.
4. Do all of that again at the same time of day.



Weather Conditions on the Day of Data Collection

- Mostly sunny according to our GLOBE Cloud chart
- 72 degrees Fahrenheit
- Little to no wind
- No precipitation

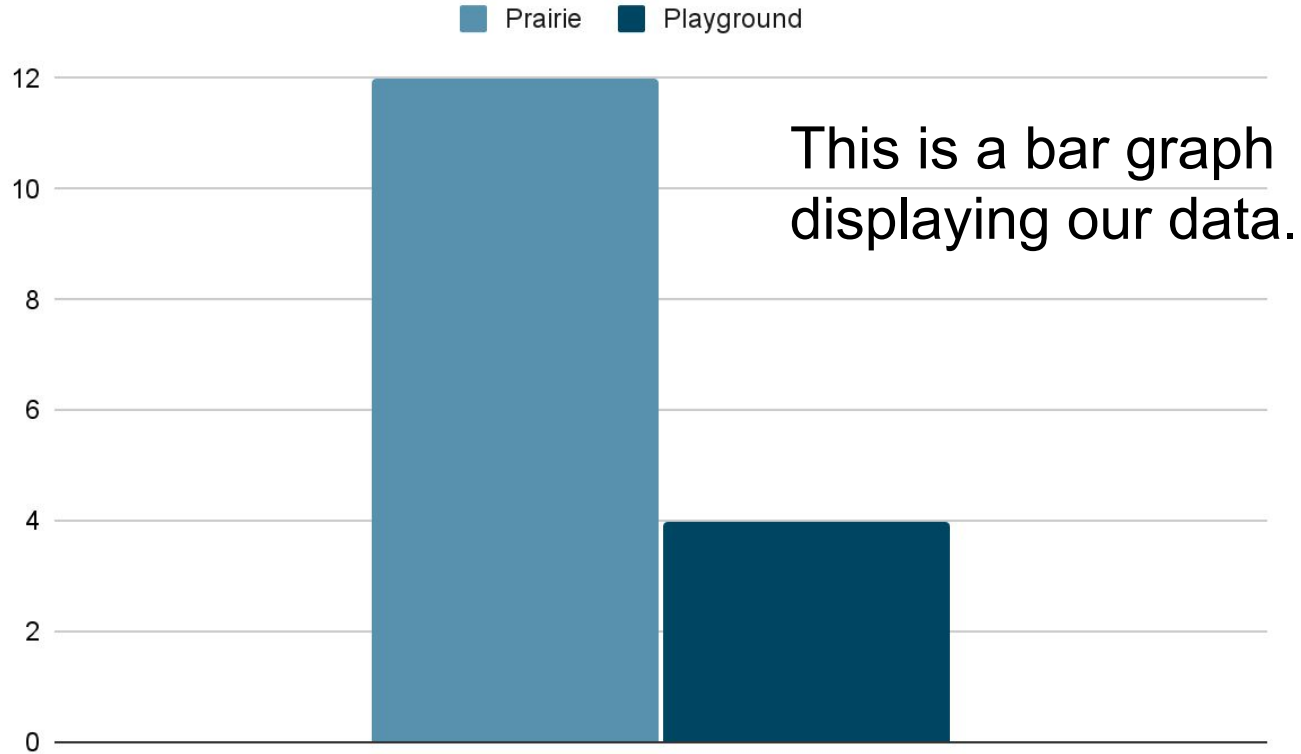


Data Table

Comparing Plant Diversity in the prairie to the playground

Number of different species found in the prairie	Number of different species found in the playground
12	4

Results: How does plant diversity in our school prairie compare to our school playground?



Conclusions:

- There are more plant species in the prairie than the playground.
- The playground had more types of grass and clover.
- Most of the plant species on the playground were turf grasses and clover.



Entering GLOBE data

Discussion: What does this mean?

- The prairie had more plant diversity, so prairies are VERY important to increase plant diversity.
- The prairie had more native plants, which is VERY important and necessary to attract native pollinators.
- The playground had small patches of grass and clover, which won't attract our native pollinators and animals.
- The playground soil is mostly gravel, which is not the best for plants because they prefer a healthy topsoil.
- There was dead grass under the playground slide, which is not a good habitat for animals.



Discussion: Possible Solutions!

- Plant more native flowers and plants to create habitats for our native animals and pollinators.
- Provide a bird bath or pond for birds in your prairie or yard if you do not have a water source for them. We put one in our prairie.
- Plant trees to add animal diversity and a habitat for birds and other animals.



Thank you!

- We give thanks to Mrs. DiSalle and Dr. Haney for helping us.
- Thank you for listening do you have any questions.



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