

Research Question Goes Here

How Does the Surface Temperature Compare
between the School Prairie and the Bioswale?

Team Member Names:

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Our Team

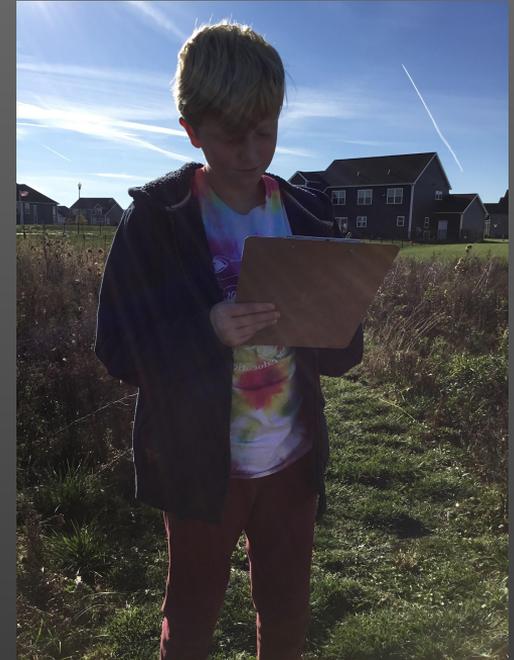
Photographer
Stevaughn B.



Experimenter
Kellen P.



Data Recorder
Asa C.



Why are Native Prairies Important?

People should put in prairies because they give homes to animals, let native plants grow, and they clean the air.



Variables

- Dependent Variable
- Surface Temp.
- Independent Variable
- Bioswale

Constants:

- Location: Prairie and Bioswale
- Same time of day
- Follow the same steps

Map of our Research Locations



Description of Locations:

A. Location 1 Prairie

B. Location 2 - Bioswale

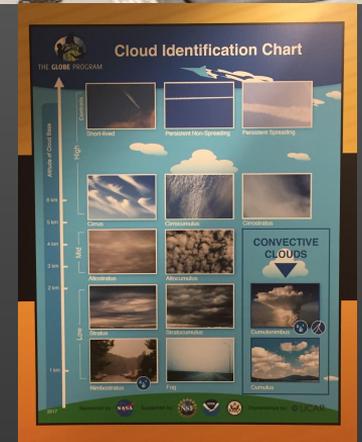
Research Question & Hypothesis

RQ: How does the surface temperature compare between the school Prairie and the Bioswale

Hypothesis: If we test the surface temperature between the prairie and the bioswale then the surface temperature in the prairie will be warmer than the surface temperature in the bioswale because the bioswale has water and it will be cooled down.

Materials

- Soil temperature thermometer
- Infrared thermometer
- iPad
- Data sheet



Step by Step Procedures:

1. Go to the school prairie to take surface temperature in the tall prairie grass
2. Set the thermometer to degrees celsius
3. Take a surface temperature measurements
4. Take steps away from each other in a straight line
5. Hold thermometer at shoulder height
6. Calculate an average, by adding up all the temperatures to get an average
7. Record average
8. Repeat step 1-7 at the bioswale

Weather Conditions on the Day of Data Collection

Day 1- Air temperature, 8.6°C , 42.8°F , It was windy and cold.

Day 2- Air temperature, 7.31°C , 58.3°F , It was cooler and very windy.

Day 3- Air temperature, 15.3°C , 58.6°F , It was cooler and light wind.

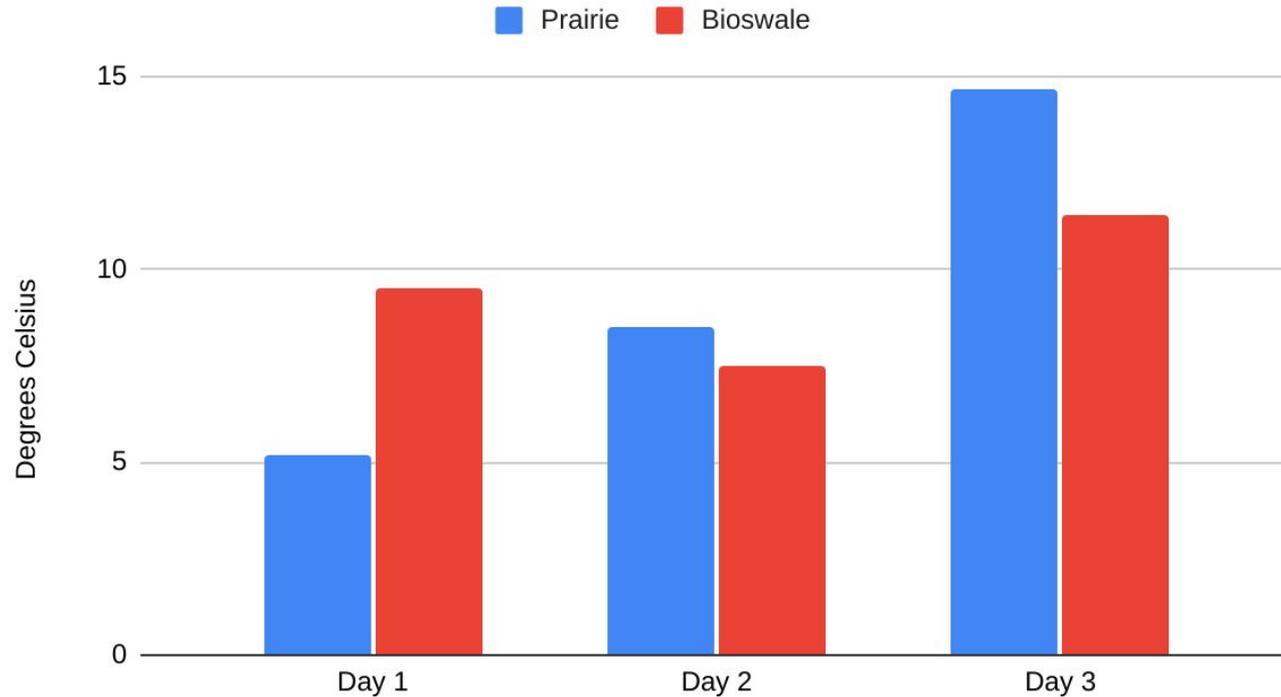
Data -How does the surface temperature compare between the school Prairie and the Bioswale

	Day 1	Day 2	Day 3
Prairie	5.2	8.52	14.68
Bioswale	9.53	7.47	11.41

Results: How does the surface temperature compare between the school Prairie and the Bioswale

How does the surface temperature compare between the school big prairie and the bioswale?

Average Surface Temperatures



Conclusions:

Bulleted list of 1 - 3 findings supported by data

- Our results show us that the bioswale temperature is
- It was warmer in the bioswale then in the prairie on day one but on day two the prairie was warmer than the bioswale.
- These were are averages over the three days 7.53 Day 1, 7.47 Day 2, 11.41

Day 3

In the bioswale and in the prairie the averages were 5.2 Day 1, 8.52 Day 2, 14.58 Day 3

Discussion: Possible solutions!

Some possible solutions are adding more vegetation, adding more green roofs on campus, adding more cool roofs and cool pavements, and adding small rocks to roofs. We are investigating these possible solutions because natural surfaces have cooler temperatures than man-made surfaces. Our main goal is to cool surfaces closer to the living spaces so that it will keep students cooler, since most are not air-conditioned.

Questions? Collaboration? Thank You.

I just want to thank Stevaugh Ballard Jr., Kellen Pruitt, Asa Callaway for this presentation With the help of our science teacher Mrs. Boros



Any questions?

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