How does surface temperature compare between the school prairie and the school gaga ball pit?

Team Member Names: Maura Tehan, Megan Ruckriegel, Quinn Rerucha, Lily Johnson

Teachers name; Mrs. Amy Boros

Advisor's Name: Dr. Jodi Haney

Our Team

Photographer
Megan Ruckriegle

Experimenter
Maura Tehan

Data Recorder
Lily Johnson

Consultant
Quinn Rerucha

Why are Native Prairies Important?

Prairies are important because:

1. They provide rare native habitats for birds, butterflies, insects, and other small wildlife
2. They require little maintenance, are long lasting, and do not need fertilizers or pesticides.
3. They are perfectly adapted to our climate. Prairie root systems are drought resistant, hold soils in place, and absorb water

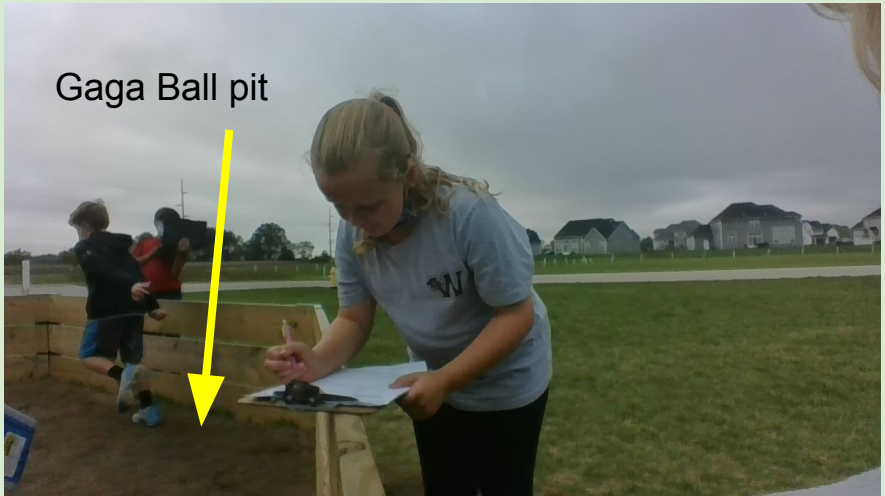
Research Question & Hypothesis

RQ: How does surface temperature compare between the school prairie and the school gaga pit?

Hypothesis: If we test surface temperature in the school prairie and the gaga pit, then the gaga pit will have a warmer surface temperature. We think this because, there are no plants covering the gaga pit and it is mainly just soil.

Variables

- Dependant Variable - Our dependant variable was surface temperature.
- Independent Variable - Our location was the independent variable. We tested Prairie vs. Gaga pit



Materials

- Thermometer
- Recording Sheet
- Pencil

Step by Step Procedures:

1. Locate spot in the prairie and gaga pit
2. Take 9 surface temperature measurements in celsius using the blue infrared thermometer. All 9 measurements should be at least one step away from each other as you walk. Hold the thermometer waist high and arm flat with the thermometer facing down at the ground.
3. Repeat 2 more times in the prairie.
4. Repeat 3 times in the gaga pit.
5. Record your information on the piece of paper that was given out.

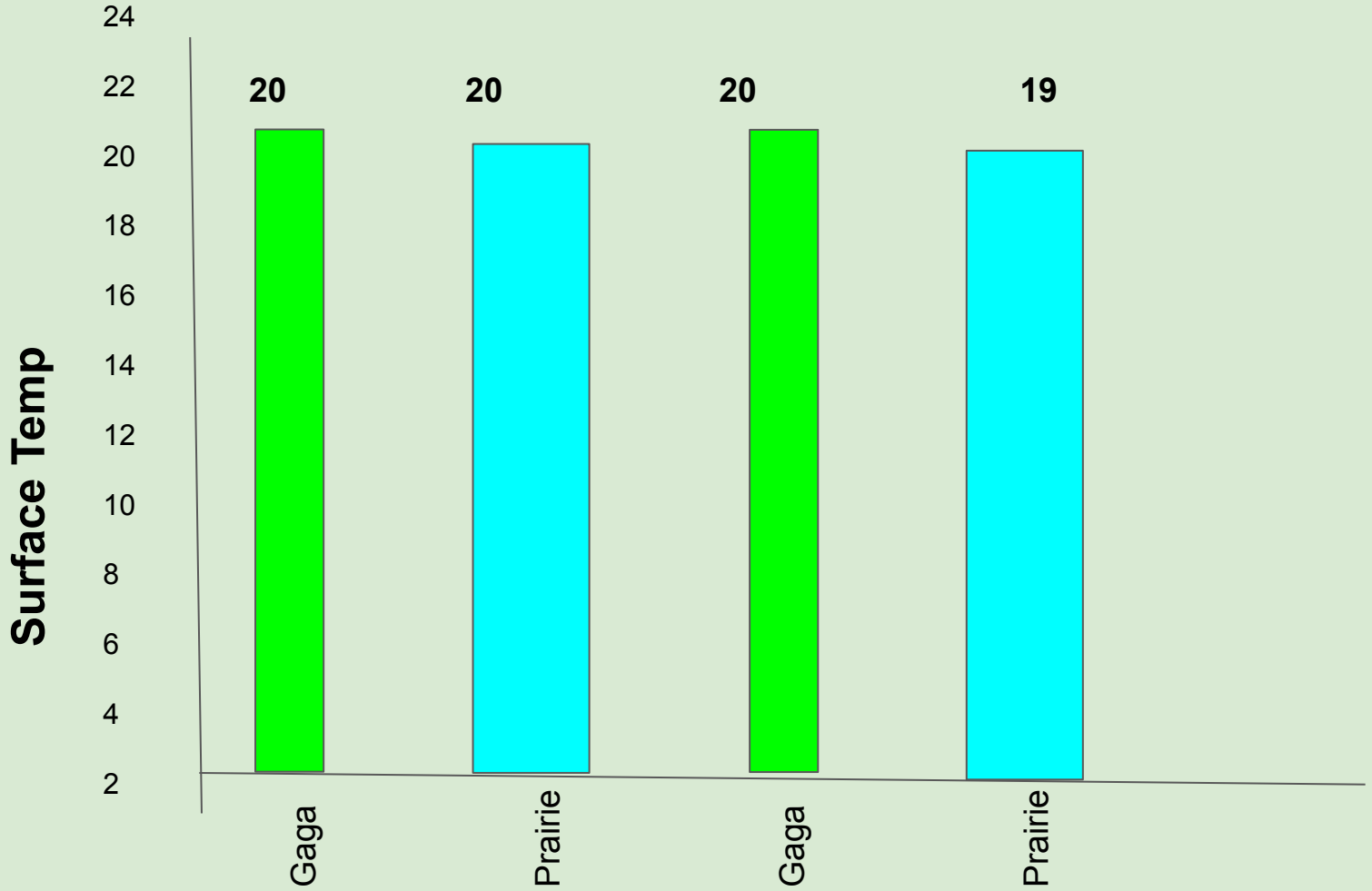
Weather Conditions on the Day of Data Collection

-It was cool out
-Sprinkling
-Breezy
-No sun
-Sky Color: Milky
-Sky Visibility: Somewhat Hazy
-Cloud Cover: Overcast
-Cloud Opacity: Opaque
Cloud Type: Altostratus

Data Table

Locations	Test 1 - Surface Temp	Test 2 - Surface temp	Average:
Gaga pit	21,21,21,20,20,20,20,20,20	21,21,20,20,20,20,20,20,20	20
Prairie	20,20,20,20,19,19,20,19,19	19,19,19,19,19,19,19,19,19	20, 19

Results: Surface Temperature in Prairie vs. Gaga pit



Conclusions:

- The Prairie is cooler than the Gaga Ball Pit. Prairie = 19 degrees celsius Gaga pit = 20 degrees celsius
- Most of the surface temperatures are the same at the school prairie: Three 20°s and one 19°
- The Prairie 1 degree colder than the Gaga Ball Pit. Gaga = 20° Prairie=19°

Discussion:

- The data is important because it helps scientists understand what's happening in the the world around us and to see if there has been drastic changes in the environment.
- The data is important because it answers the questions we were asking
- Prairies are cooler due to shade from the native plants. They keep animals and plants at ideal temperatures

Discussion: Solutions!

Hi, we are 6th graders at Hull Prairie Intermediate and we think people should install more native prairies because it helps the ecosystem in so many different ways. It gives homes to animals, you get to learn about new things every day! People should also install native prairies is that they are a fun way to learn. A prairie provides students different ways to learn about nature and explore the outdoors. In conclusion, that is why we think people should install more native prairies.

Questions? Collaboration? Thank You.

Creators

- **Lily Johnson**
- **Maura Tehan**
- **Megan Ruckreigle**
- **Quinn Rerucha**

We really enjoyed making and getting the opportunity to create a project like this!
-Lily Johnson

I liked working with people and I had a lot of fun!
-Quinn Rerucha

Our teacher: Amy Boros
5th/6th Grade Science Teacher
Hull Prairie Intermediate School
Perrysburg, Ohio
aboros@perrysburgschools.net