

SOLAR POWER! HARNESSING THE ENERGY OF THE SUN



4th and 5th Grade, Cedar Ridge Elementary School



Introduction

The goal of this project is to investigate solar energy at Cedar Ridge Elementary School. Our project would benefit the environment because solar energy doesn't cause pollution. It would save the school money because sunlight is free. We looked at where the best place is to put solar panels.

Objectives

- Use solar wands to determine the best location for solar panels.
- Measure the amount of sunlight to see if solar panels would work well at Cedar Ridge Elementary.

Methods

Sun Sticks let you know how much sunlight you have in different parts of your yard. The disk in the center changes color in response to sunlight.



Methods

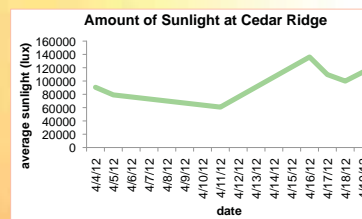
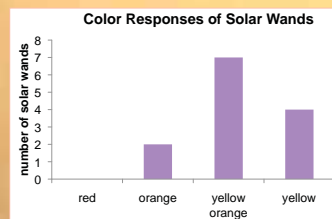
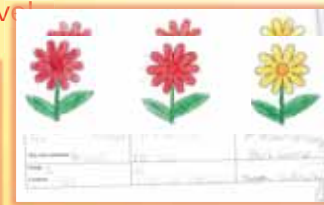
- 1) We made predictions on the best location for solar panels at Cedar Ridge Elementary.
- 2) We chose one location for our group and placed a Sun Stick there.



- 3) We checked our Sun Sticks in the morning, mid afternoon and at the end of the school day and recorded the colors on our flower drawings.
- 4) We took daily light readings with a Lux-meter.

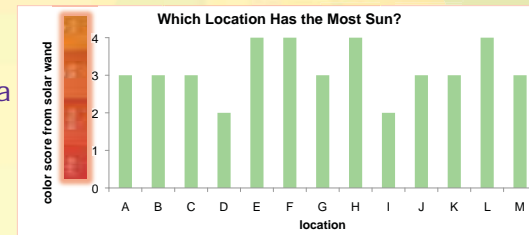
Results

We matched the color with the color chart to determine the sunlight level.



At the end of the day, most locations were yellow orange, which means that most locations had part sun. Also, all of our light readings were above 50,000 lux, which is a bright, sunny day.

Results



We converted each color to a number:

- 1 – Red (full shade)
- 2 – Orange (part shade)
- 3 – Yellow orange (part sun)
- 4 – Yellow (full sun)

Four locations had the most sun: E, F, H, and L.

Conclusions

Some spaces worked better than others, but overall a lot of places we chose had sunlight. We found from the light readings that we had good light every day. We think that Cedar Ridge is a good location for solar panels.

We will conduct experiments using solar powered cars to make measurements and decisions on how to use solar energy.

Acknowledgements

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