

Rukmini Devi Public School, India
(Global Sun Temperature Collaborative Project)
Final Report

This is the first time we have participated in this project. This project gave us an opportunity to learn the concept in an interesting way.

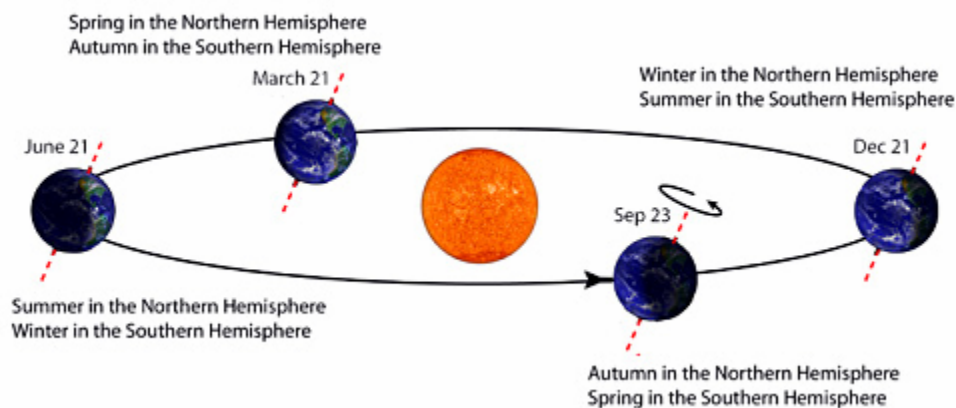
The Earth's daily weather and climate is controlled by the balance between the amount of sunlight received by the Earth (both its surface and atmosphere) and the amount of energy emitted by the Earth into space.

The Earth moves in two ways:

1. It rotates on its axis, resulting in turning toward and away from the Sun, causing the cycle of night and day every 24 hours.

2. It revolves around the Sun in the shape of an ellipse (not a perfect circle).

Strangely enough, during summer in the Northern Hemisphere, the Earth is actually at the portion of the ellipse that is farther away from the Sun than the portion of the ellipse it travels around during the winter months.

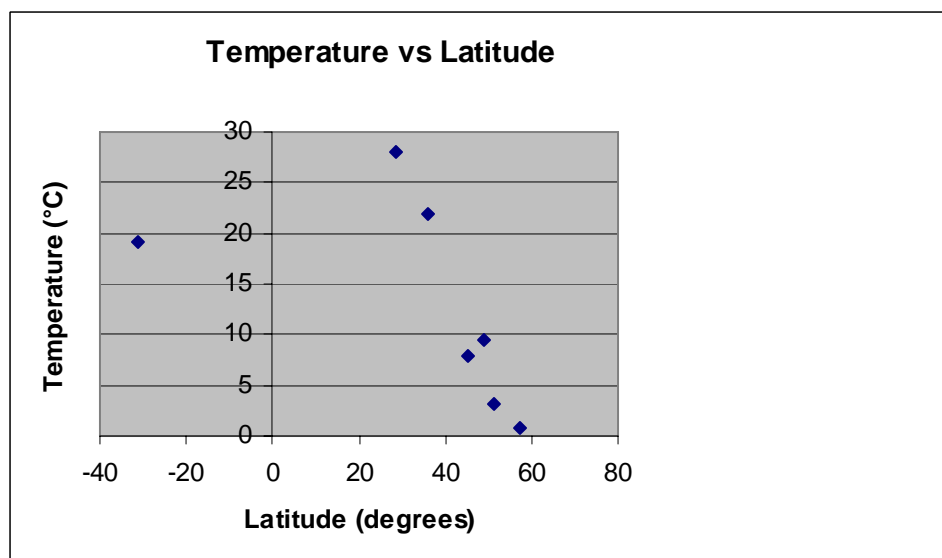
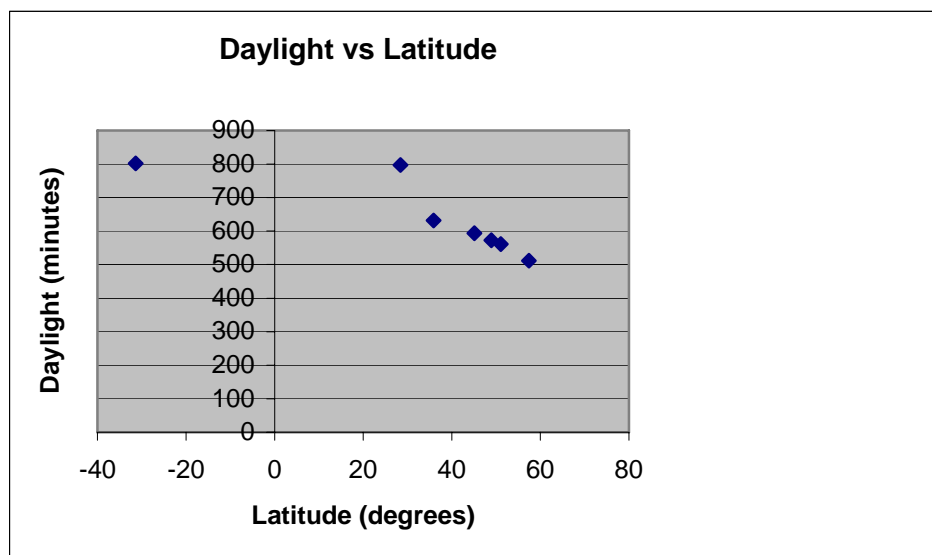


The Earth is tilted on its axis so that the North Pole doesn't really face directly upward. Instead, it points toward Polaris, or the North Star. No matter how the Earth is rotating or revolving, that tilt remains approximately the same all year long. This tilt, combined with the revolution of the Earth around the Sun, is what causes different areas of the Earth to receive more or less direct sunlight throughout the year. The time of year when the Northern Hemisphere receives the most direct sunlight is summer in the Northern Hemisphere. The time of year when the Northern Hemisphere receives the least direct sunlight is winter in the Northern Hemisphere. In addition to the light being more spread

out during winter months, the Earth's angle also causes the Sun's light to travel through more atmosphere. Atmosphere blocks some of the light and disperses the remaining light further.

We noted the observations in our school premises. The observations were noted systematically and step-by-step record was maintained. We were not familiar with some of the interesting facts about latitude and longitude. It was really interesting to know about them and conduction of survey was a real fun.

Our hypothesis was that "countries near to the equator get more sunlight and have high temperature". After analyzing the data and by plotting graphs we came to the conclusion that our **hypothesis is correct**.



From the graph of Daylight vs. Latitude and Average Temperature vs. Latitude we observed that countries with lower latitudes receive more sunlight & thus have more temperature than those with higher latitudes.

It was an interesting experience while working on the Global Sun Temperature Project. We certainly look forward to work on it in future.

Here are some photographs:

Our Class Photograph



Noting the Observations



Thanks

**Global Sun Temperature Collaborative Project Group
Rukmini Devi Public School
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