

Investigating clover growth in different environments

Year 5 GLOBE students

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This idea originated while preparing our school garden for the GLOBE Bloom and Buzz Project.

We sowed and planted different flowering herbs, plants and shrubs which attract bees.

One of these plants is the clover plant.

We started asking many questions and became very curious!

We decided to sow clover seeds and observed their sprouting and growth rate.

Materials Used

Clover Seeds
2 greenhouse containers
Potting and garden soil
Water





We

- prepared the containers and a small garden bed.
- filled the containers with potting soil, and prepared the garden bed by loosening the soil.
- sprinkled a small number of clover seeds on the soil surface.
- these were spaced about 1-2 inches apart in the container and in rows in the garden bed.
- watered seeds ensuring the soil was moist but not soggy.



Selecting 3 different sites within our school



**Site 1:
Outdoor
School
Garden**



**Site 2:
Indoor
glasshouse
container in
direct sunlight**



**Site 3: Outdoor
glasshouse
container in the
shade of a Carob
tree**

Data collection

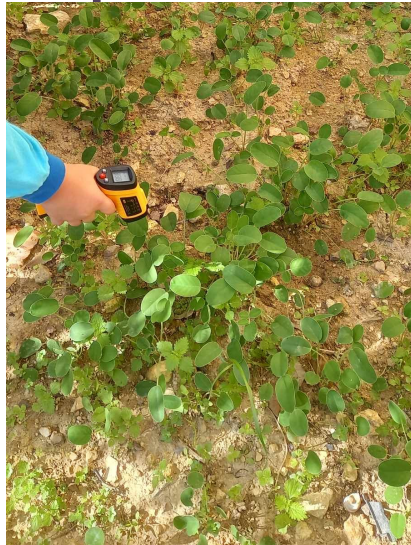
From each site:

- we measured the soil surface temperature and the air temperature.
- 6 readings were taken around noon for a whole month.
- Additionally, we recorded the sprouting and measured plant growth.
- Leaf colour was also observed and recorded.





Taking soil surface temperature



Measuring plant growth



Site 1 : Outdoor School Garden

Taking air temperature



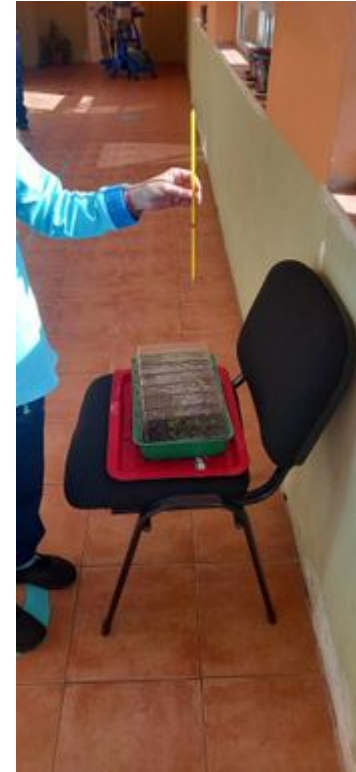
Site 2: Indoor glasshouse container in direct sunlight



**Taking soil
surface
temperature**



**Measuring
plant
growth**



**Taking air
temperature**

Site 3: Outdoor glasshouse container in the shade of a Carob tree



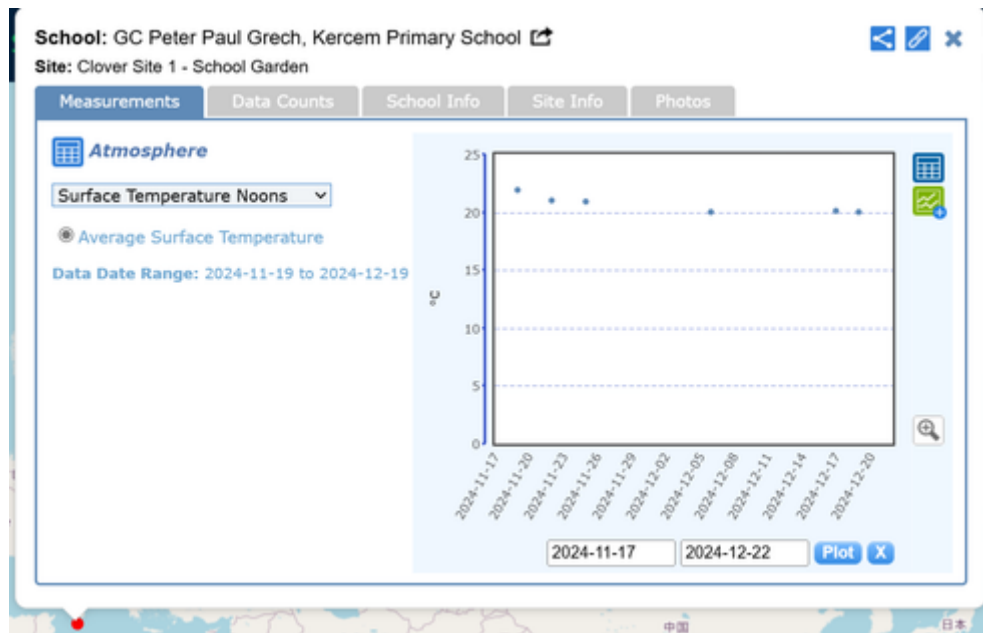
**Taking soil
surface
temperature**



**Measuring
plant
growth**

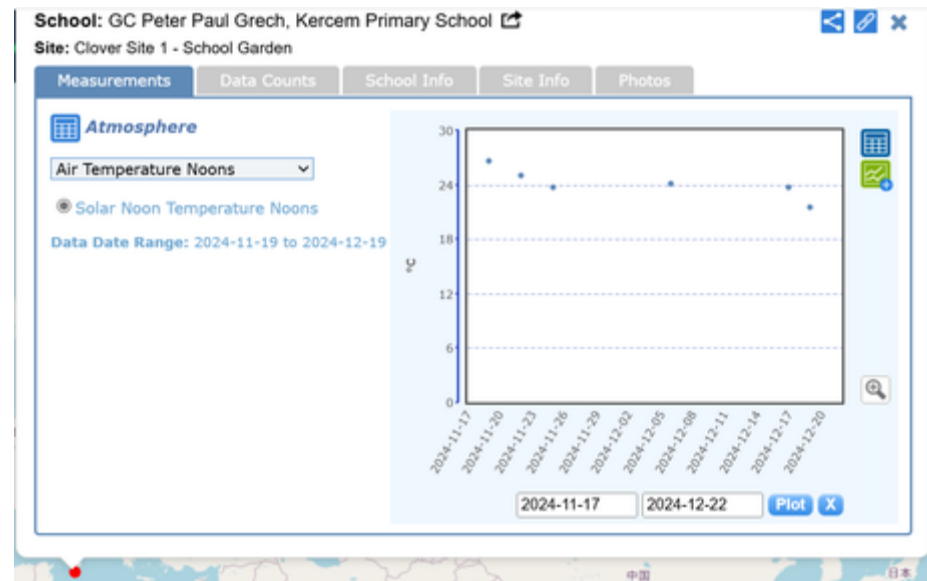


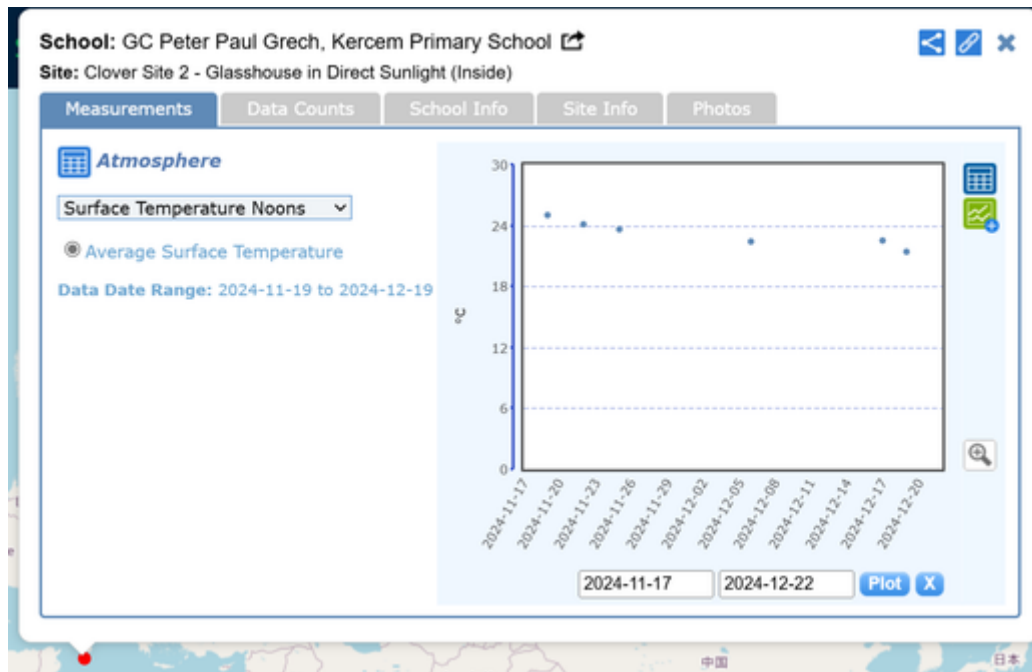
**Taking air
temperature**



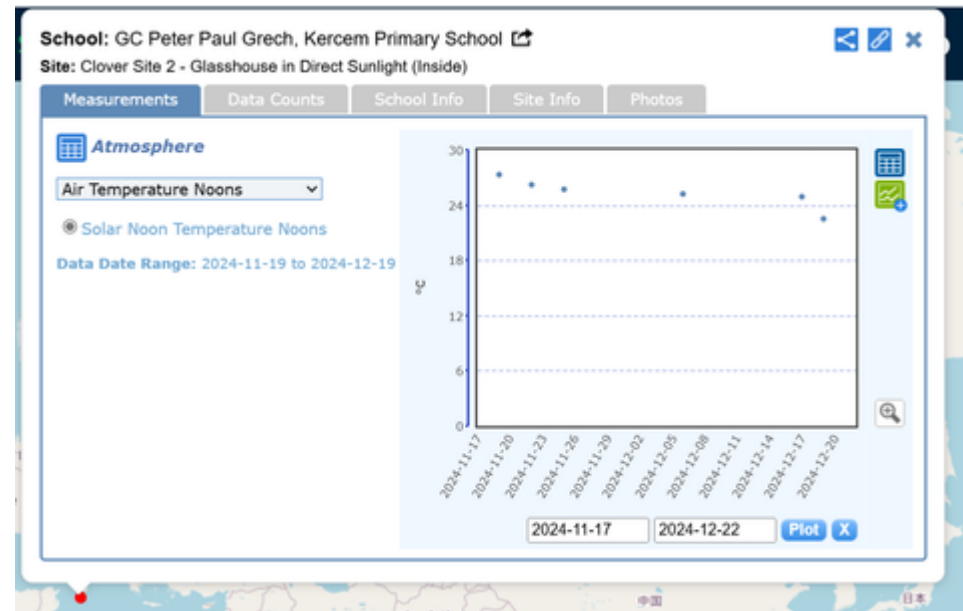
Site 1 - Outdoor School Garden

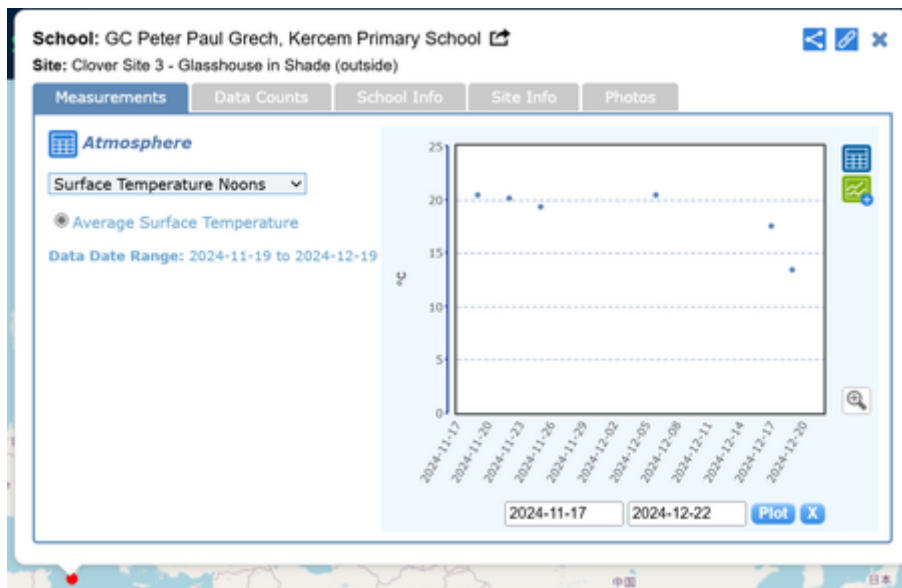
Screenshots from
GLOBE website
showing the air
temperature and
soil surface
temperature
graphs



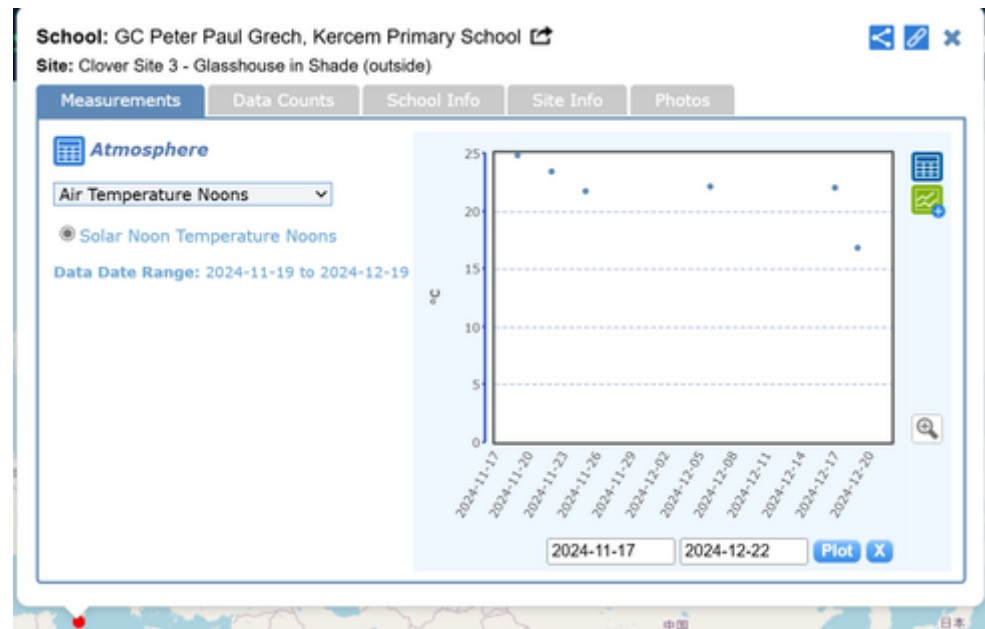


Site 2: Indoor glasshouse in direct sunlight





Site 3: Outdoor glasshouse in the shade of a carob tree



Findings

The indoor greenhouse was the most adequate environment for the seeds to sprout and grow into healthy plants.

The temperature, moisture and sunlight provided the ideal conditions for full and fast sprouting.

However, we noticed that once the plant reached a certain height (7.5 cm) they stopped growing.

Site 3 now was the best option as it provided better conditions, like space, nutrients and water.



The End