

Day and Night – Solar Oven 晝與夜- 太陽能烤箱

Connection

Daytime is when you can see the sun from where you are, and its light and heat can reach you. Nighttime is when the sun is on the other side of the Earth from you, and its light and heat don't get to you. We get day and night because the Earth spins (or rotates) on an imaginary line called its axes.

The Sun and Moon

Students had a fascinating time answering two questions that simply never come to mind; what will happen if the sun or the moon disappeared? Exploring these two questions allowed the students to realize the importance and fragility of our resources as well as different ways to harness their energy for our benefit.

Solar Oven

In each class, students were tasked to study certain materials provided to them and come up with a way to use those materials to make a solar oven. The solar oven helped the students understand how we can utilize the energy of the sun to support our needs. They observed the sun's light rays hit a foil flap in the box. The rays are transformed into heat energy that slowly raises the temperature inside the box, causing the food to cook.

連接性

在白天，你可以在你所在的地方看到太陽，並且感受光和熱。在夜晚，太陽是在地球的另一側，因此你看不到光也感覺不到熱。我們有晝與夜是因為地球以一條假想線（軸）轉動，也稱自轉。

太陽和月亮

學生思考兩個從未想過的問題。如果太陽或月亮消失了會發生什麼事？藉由探索這兩個問題，學生瞭解這些資源的重要性和珍貴性，以及使用能源來換取效益的不同方式。

太陽能塔

各班先針對所需的材料做研究，並設法將這些材料製作成太陽能烤箱。太陽能烤箱幫助學生瞭解我們如何利用太陽能來滿足我們的需要。他們觀察到太陽光照射到箱子裡的一片箔片上。光線會轉化為熱能，緩慢升高箱內溫度，使食物變熟。

1

ASK + IMAGINE
提問 + 創思

2

We explored heat energy and how we can use it to improve our daily lives.

我們探索了熱能以及如何使用它來改善我們的日常生活。



3

PLAN
計畫

4



4

CREATE
創造

5

Collaboration was important to ensure we used the material in the right way.
一起合作可以確保我們以正確的方式使用材料。

We had to be accurate with the shape, size and dimensions of the oven.
我們必須準確了解烤箱的形狀、大小和尺寸。



5

IMPROVE
改進

6

Testing the solar oven to see what temperature can be reached.

測試太陽能烤箱，看看能達到什麼溫度。

