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OUT OF THE DARK: ASTRONOMY AS UNIFYING THREAD FOR CULTURES.



Seasons models

Building models showing the seasons changing

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Introduction

This is one of the activities that related creativity and scientific knowledge, given the students the opportunity to create a simple model to explain a natural phenomenon in a simple and easy way. In transnational groups the students built and explained why we have seasons.

Materials

Balloons, string, tape, pens, plastic beach ball and a lamp.



Procedure/Method

We introduced the task by showing the pictures you can see to the right. The first showing the sun north of the polar circle summertime. The next shows how deep the sun goes under the horizon in Eskilstuna in May, which is only a few degrees.

The students were divided in transnational groups, handed the material and asked to explain these phenomena.

The questions were:

Why do we have different seasons?

- Build a model that explains it.

Think about why the differences between seasons are greater near the south and northpole.

In the end all groups showed their models and talked about how they had solved the task.

Results

The workshop was a good opportunity to collaborate and do a technical work. All groups managed to produce correct models of the phenomenon, some with more help, some with less. All groups were able to describe their thoughts.





Conclusions

This is an opportunity to learn from other teachers and become a teacher at the same time, thus developing the ability to explain a content, find solutions to a problem, investigate, etc. Peer learning is one of the priorities of this kind of projects, as well as the exchange of knowledge and experiences. All groups had to think about and discuss how to solve the issue. The task was understandable, but still a bit difficult, so we had many good discussions in the room.

Bibliography

<https://outofthedarkerasmusus.blogspot.com/2018/12/building-sundials-and-quadrants.html>

Thanks

Thanks to Martin Fehne, who came up with the idea to let the students build the seasons.