GEAR (Global and Environmental Awareness and Responsibility) – a Toolkit for Inclusive Environmental Education

Project Element: The Sun
Elective Project for Grade Six

Objectives (Environmental Science):

O1. To spark and maintain the pupil's interest in the environment and to help the pupil experience all fields of knowledge of the subject as significant to themselves.
O2. To guide and encourage pupils to set personal study goals and to make persistent efforts to achieve them.
O4. To encourage pupils to formulate questions about matters related to the Sun concerning aspects of personal interest.
O6. To guide the pupil to recognize causal relationships, to make conclusions based on their results, and to present the results and research in different ways.

Objectives (Language):

O1. To guide pupils to strengthen their skills of acting constructively in different communication environments and to express their opinions.
O3. To guide pupils in using their creativity and expressing themselves in a versatile manner in different communication and presentation situations.
O4. To encourage pupils to develop a positive self-image as a communicator and willingness and ability to act in different interactive situation, also in multimedia environments.
O6. To guide pupils in developing skills in analysing, assessing, and interpreting diverse texts, expanding their vocabulary and resource of concepts, and promoting their thinking skills.
O10. To encourage and guide pupils in verbalizing their thoughts and practicing the production of narrative, descriptive, instructive, and simple argumentative texts, also in multimedia environments.

Transversal Competences

T1 Thinking and Learning to Learn
Pupils were invited to approach the Sun from the perspective that interested them the most and to set questions to guide what they wanted to learn about the Sun in that context. They were also encouraged to take a multidisciplinary approach.

T2 Cultural Competence, Interaction and Self-expression
Pupils were invited to present their work in the manner that they wanted. We discussed different ways of presenting results, and also brainstormed more exotic ways in which something could be presented.

T4 Multiliteracy
Pupils could use a variety of sources for researching their chosen topic. They also had to produce a plan including questions that they wanted to use to guide their research. In this way, they had the opportunity to practice the basics of scientific hypothesis setting.

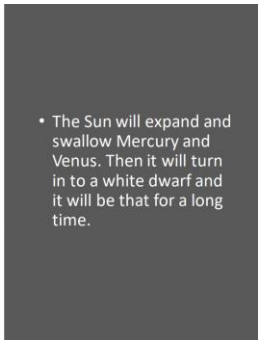
T5 ICT Competence
Pupils could choose to present their work using a variety of different ICT forms: PowerPoint, movies, animations.

Realising the Activity

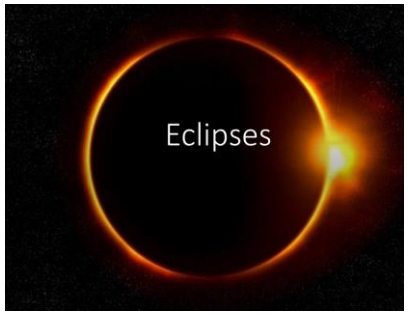
The pupils worked in pairs or threes. They had to devise questions to guide their research process. They could decide what their finished product would be. We discussed what this might be, but the favoured approach was a PowerPoint presentation, followed by a poster.

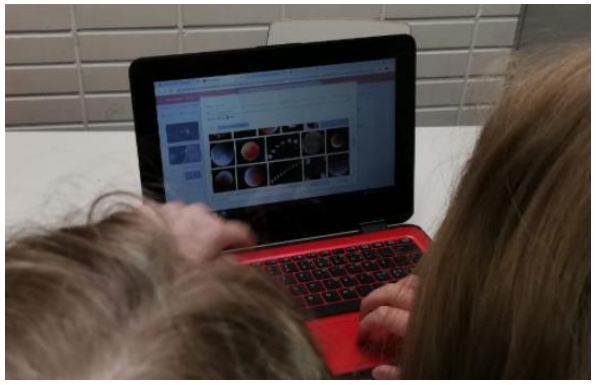
They had to choose how they would approach the subject of the sun and many of them chose either a scientific or historical cultural approach. Our starting point was the Sun as the source of all energy and life on earth. The topics chosen were:

1. The Formation of the Sun

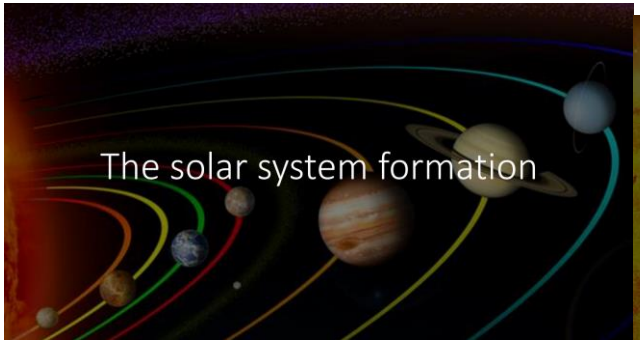


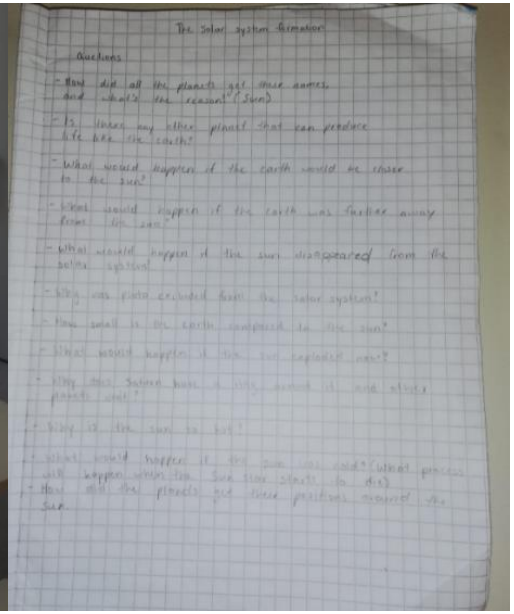
2. Eclipses



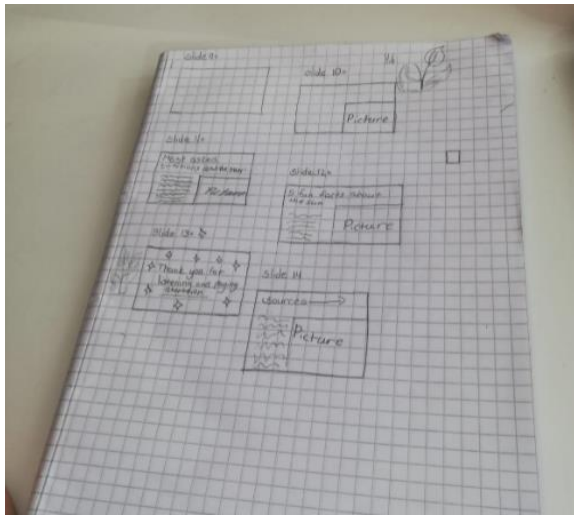


3. How the Solar System was Formed

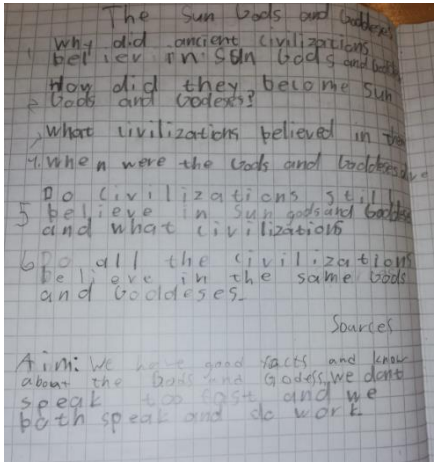


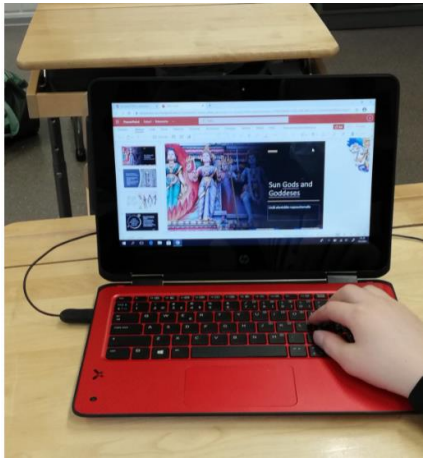


4. How the Sun Impacts Us

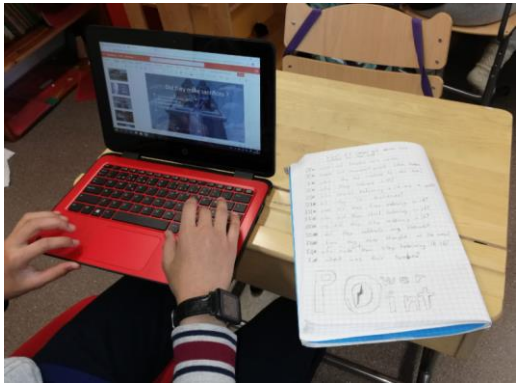


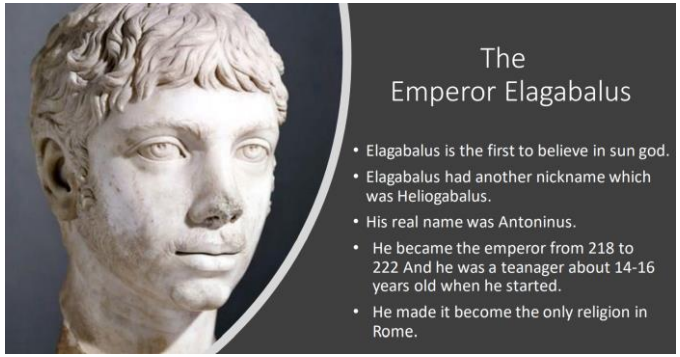
5. Sun Gods and Goddesses



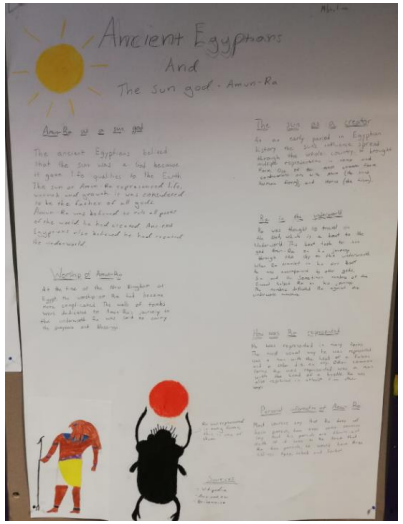


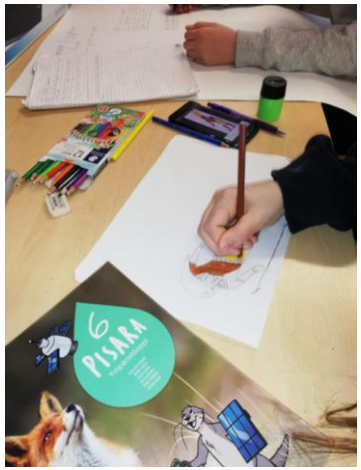
6. **Roman Sun God**

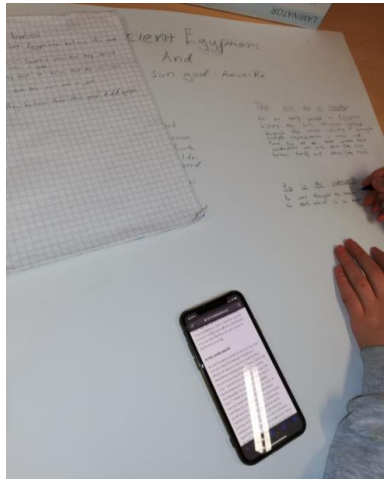




7. **Ancient Egyptians and the Sun God Amun-Ra**

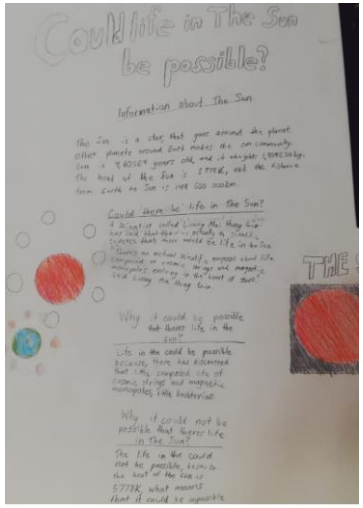






8. **The Significance of the Sun to the Aztecs**

9. Is life on the sun possible?



The pupils peer reviewed each other's presentation and gave feedback on how the pupils presented their information. The groups received a grade from the teacher on their physical presentation – so the PowerPoint presentation or the poster – not on how they presented it. They could decide which subject they wanted the grade to go towards.

Moreover, since we are encouraged to provide diverse assessment, the pupils showed initiative and asked if they might present their work to someone from outside and receive a grade towards their English Literature for how they presented. Professor Juha Hämäläinen from the University of Eastern Finland's Department of Social Sciences kindly agreed to listen to the presentations. Pupils were given extra time to work on the texts for their presentation and created a paper to help them. We created a TEAMS link since visitors are not allowed into school during the Covid Pandemic.

https://uefconnect.uef.fi/en/person/juha.hamalainen/

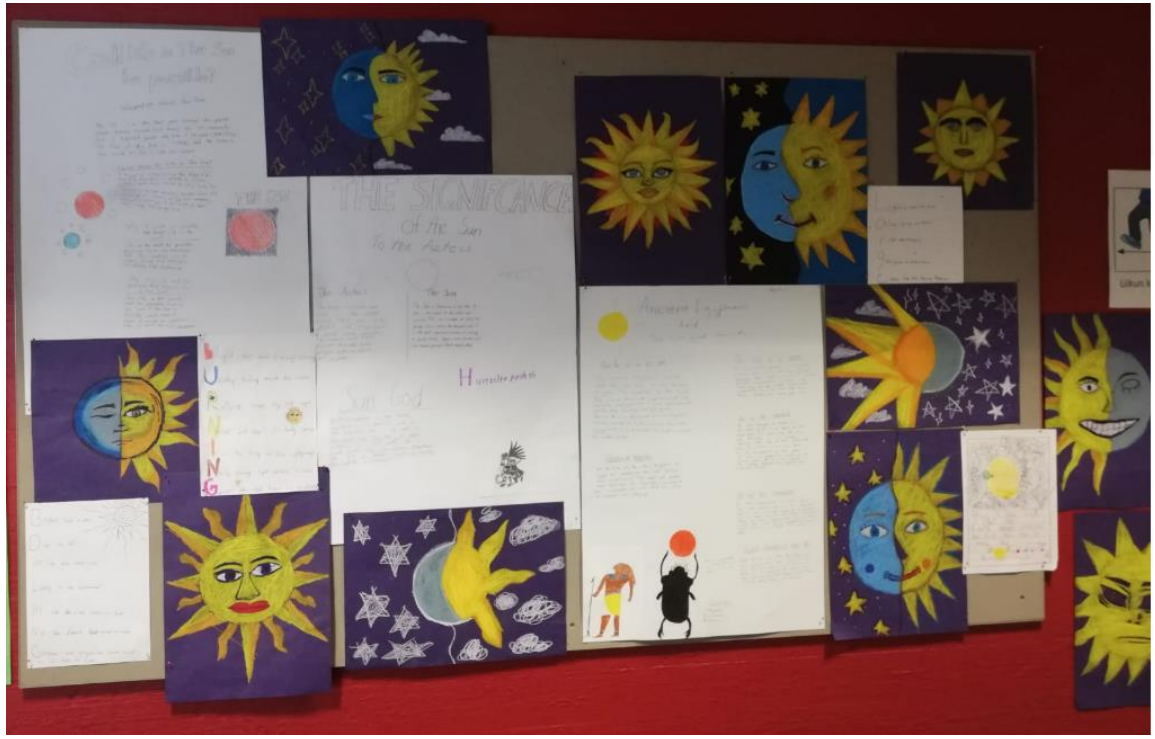
Thursday April 22nd

We met online with Professor Hämäläinen and four of the groups presented their material. The presentations were:

1. The Sun
2. Eclipses
3. How the Sun Impacts Us
4. The Formation of the Solar System

The presentations went very well, and the pupils received good feedback.

Final Activity: Sun Art



These boards are a joint effort by classes 1B, 5B and 6B.

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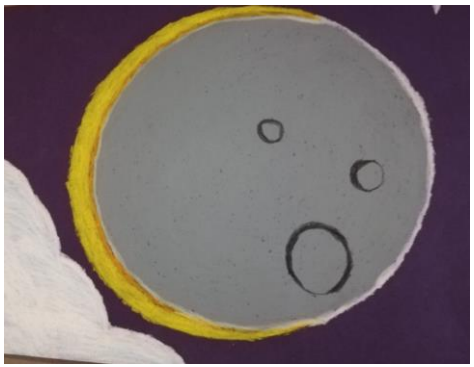
6B Sun Pictures



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