

Space education: a way to motivate students to study STEM subjects

Heli Lätt
ESERO Estonia manager



UNIVERSITY OF TARTU
Tartu Observatory





Current situation in Estonian education

based on the results of the PISA 2022 survey

- Estonian children's knowledge (in maths, reading and science) is at the top in the world and at the absolute top in Europe.
- According to school leaders, the lack of teachers in general and of qualified teachers in schools has increased.
- Estonia ranks first in terms of teachers' freedom to tailor the school curriculum.



Teacher training



Creation/translation of
teaching materials



ESA challenges for
students

Teacher training:

United by Space - school team building training

- involve all teachers in the school;
- we work with the school as a team;
- introducing challenges that integrate subjects;
- creating a motivating environment for collaboration within the school;
- teachers prepare a plan for a space day/week as part of the training.

TEADUSPÄEVA PÄEVA KAVA 24.03	1. tund	2. tund	3. tund	4. tund Rahvamajas	5. tund
I klass	Astronaudi füüsiline tervis Võimla	Kosmosekapsli ehitamine 1. kl ruum	Kosmosebingo Ajalooklass	T E A D L A S E L O E N G	Õhupallirakett 3. kl ruum
II klass	Kosmosekapsli ehitamine 1. kl ruum	Astronaudi füüsiline tervis Võimla	Õhupallirakett 3. kl ruum		Kosmosebingo Ajalooklass
III klass	Õhupallirakett 3. kl ruum	Kosmosebingo Ajalooklass	Astronaudi füüsiline tervis Võimla		Kosmosekapsli ehitamine 1. kl ruum
IV klass	Paberlennukite aerodünaamika Matemaatikaklass	"Kas sinust võiks saada astronaut?" Eesti keele klass	Kosmosekapsli ehitamine 1. kl ruum		Astronaudi füüsiline tervis Võimla
V klass	Kosmoselaeva materjal Vene keele klass	Astronaudiviiver 2. kl ruum	"Kas sinust võiks saada astronaut?" Eesti keele klass		Paberlennukite aerodünaamika Matemaatikaklass
VI klass	"Kas sinust võiks saada astronaut?" Eesti keele klass	Paberlennukite aerodünaamika Matemaatikaklass	"Kosmosemutid" ehk naised kosmoses Inglise keele klass		Astronaudiviiver 2. kl ruum
VII klass	Merejää kosmosest vaadatuna Loodusklass	"Kosmosemutid" ehk naised kosmoses Inglise keele klass	Kosmoselaeva materjal Vene keele klass		"Kas sinust võiks saada astronaut?" Eesti keele klass
VIII klass	"Kosmosemutid" ehk naised kosmoses Inglise keele klass	Merejää kosmosest vaadatuna Loodusklass	Astronaudiviiver 2. kl ruum		Kosmoselaeva materjal Vene keele klass
IX klass	Astronaudiviiver 2. kl ruum	Kosmoselaeva materjal Vene keele klass	Merejää kosmosest vaadatuna Loodusklass		"Kosmosemutid" ehk naised kosmoses Inglise keele klass

PÄRAST TEADUSPÄEVA JÄTKUVAD AINE- JA RINGITUNNID

Researchers in schools ...

as part of teacher training



inspiring students





Career Day – a career ladder leads to space



Workshop: Comet Interceptor Mission

- Practical workshops - 38 workshops in parallel
- Workshop duration 1,5-2 hours
- Up to 10 students per group
- Workshops run by professionals in their field (academia and industry)

Science Task Force



Tartu Hansa Rotary Klubi

TARTU ÜLIKOOL
Tartu observatoorium

Esero

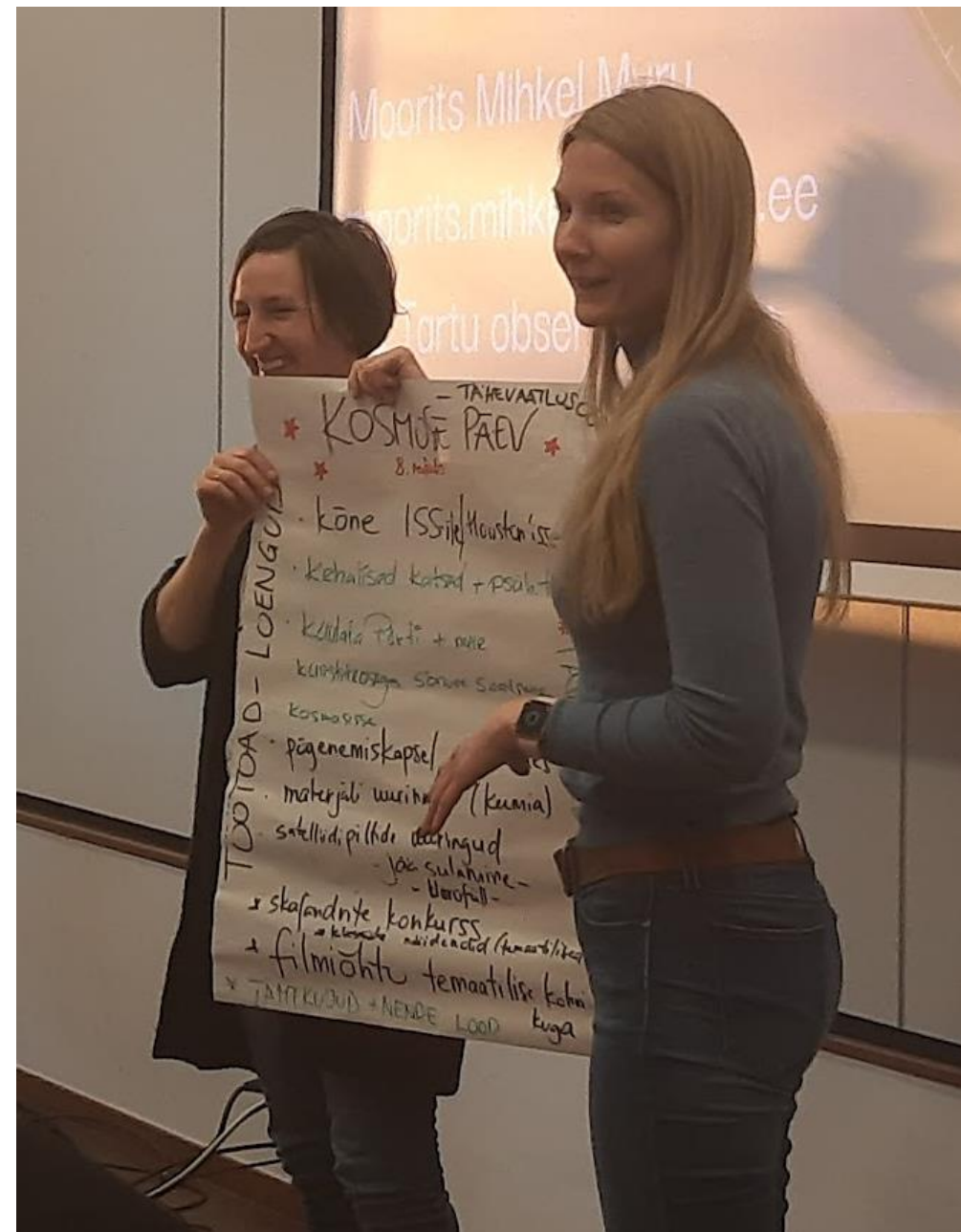
Teadusmalev

24.07–09.08
Tõraveres

Kandideerimine 17. aprillini
www.esero.ee

- 15 students
- 2,5 weeks in summer
- under the supervision of researchers
- examples of work titles:
 - Investigating simulations of the 4MOST Observation Project
 - Estimation of chemical elements in star HD21997

inspiring teacher training leads ...



...to a Space Day at school.



Broadening career choices ...





**Inspired and
united by
space!**