

# Digital Technologies in STEM Education



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## Masaryk School in Space



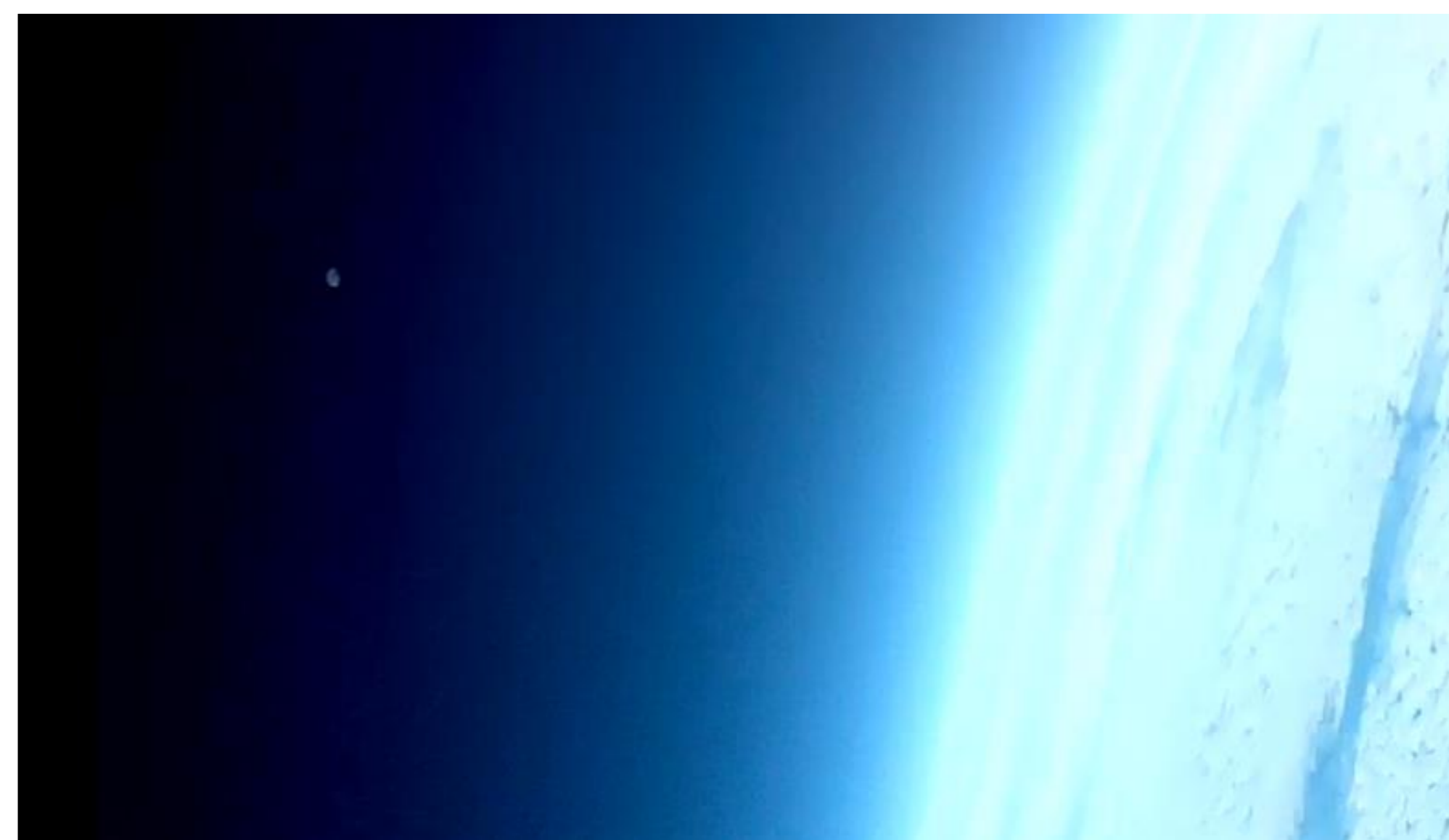
### Sustainable Project

The goal of the project was to **photograph the curvature of our planet**, but we managed to do much more!

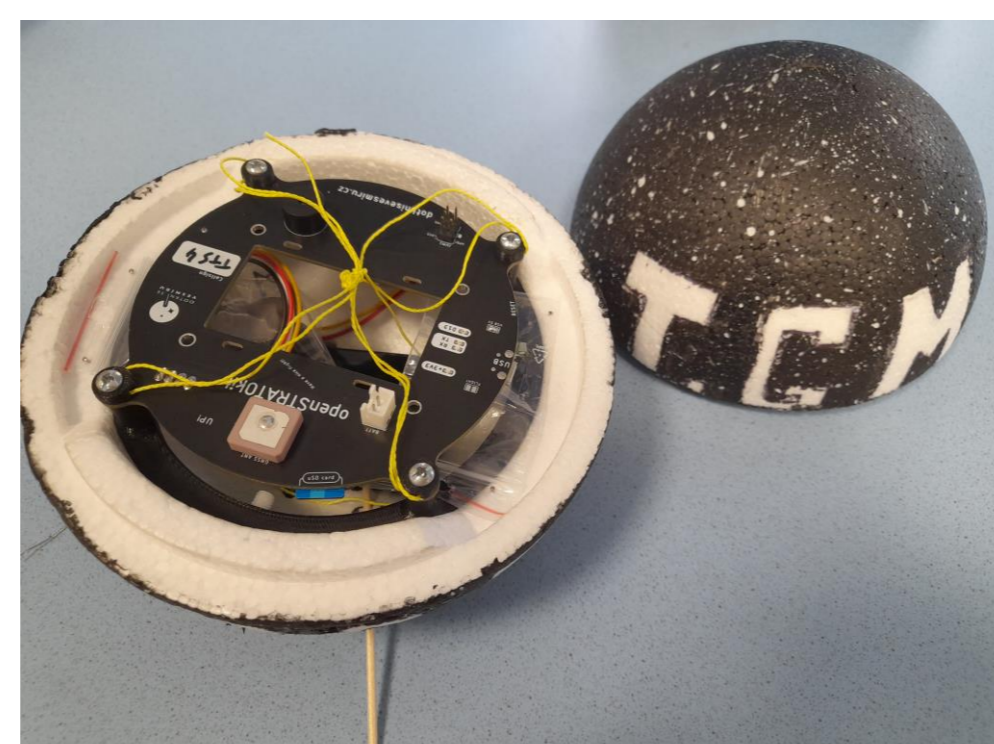
The cooperation of pupils of two classes (10 and 12 years old) led to the construction, launching, finding and evaluation of data from the meteorological probe flight.

They got funding, programmed, visited the airport, involved parents...

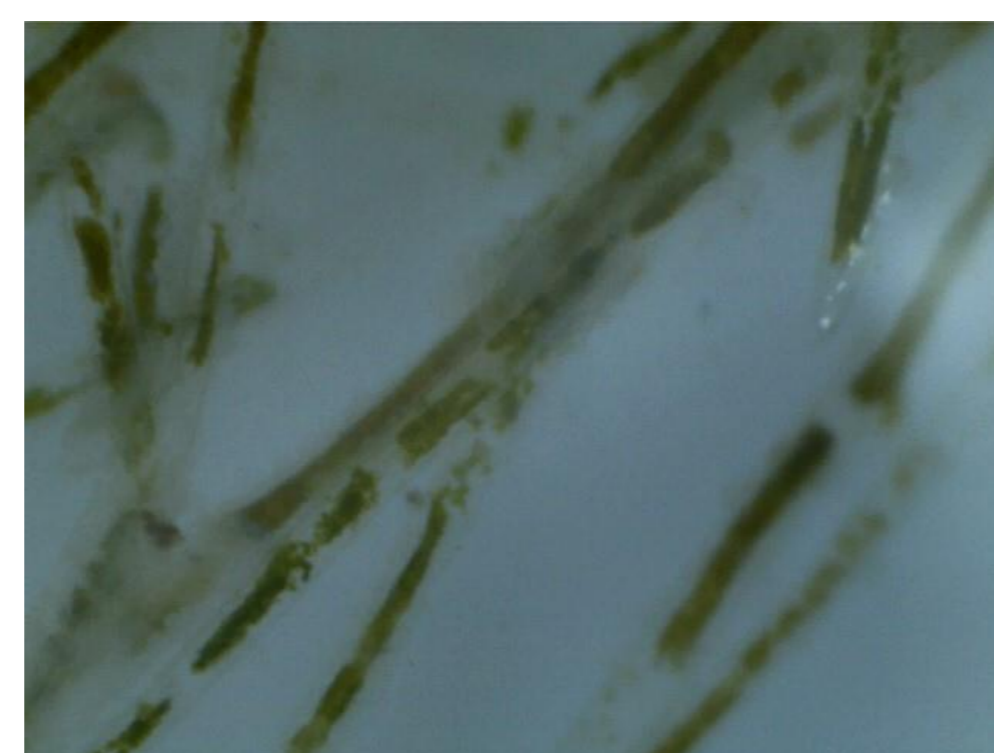
We connected many fields!



**Image from the probe's camera** – evidence of the curvature of the Earth with a view of the Moon.



**The metrological balloon** carried a probe with digital sensors, a camera, a talisman and a plant.



**A biology project** investigated the effect of being in space on a plant cell. We observed the breakdown of the chloroplast. Cell regeneration did not occur.

### Probe data measured by digital sensors:

Flight time until bursting: 2h 23min

Maximum height: 34 568 m

Average upward flight speed: 14,5 km/h

Average Probe fall down speed: 41,7 km/h

Lowest recorded temperature: -35,7 °C (11 km)

At the school, the children installed a **weather station** and they record the measured data. We share them with the public on the school and city website.



**Video of the project:**



Scan me!

**Overview of work:**



Scan me!

**What's the weather at home?**



Scan me!