

PÉTER RÓTHY-GRUBER



School:

ELTE János Bolyai Primary and Secondary Teacher Training School

Teachers:

Bence Farkas Szabó – chemistry, biology
József Baranyai – biology

VERSENYEREDMÉNYEK

2024

- Semmelweis Health Competition - 6th place

2025

- 8th International Chemistry Tournament Hungarian Qualifiers – 1st place
- 8th International Chemistry Tournament – personal 1st place, team – silver medal, best reporter
- National First-Aid Competition – 2nd place

2026

- 9th International Chemistry Tournament Hungarian Qualifiers – 1st place

DESCRIPTION

For the International Chemistry Tournament, I had to solve open-ended chemistry problems and present my results.

In the qualifying round, I developed a protocol to measure lead in tap water using only high-school lab and pharmacy equipment and materials. I used a complex-forming reaction to visualize lead(II) ion content and built a smartphone-based spectrophotometer-analogue device for quantitative measurements, which I validated with several different tests.

In the international round, I tackled a theoretical problem: proposing a synthetic route to the pigment used in Irises by Vincent van Gogh, starting from its most likely degradation product.

In my presentation, I also touch upon the more general aspects of problem solving in chemistry and the natural sciences, highlighting the skills beyond factual knowledge that have been essential in my scientific journey so far.