

PROFILES impact, not only CPD!

From the CPD to the class, from the class to Chemistry competitions

Sofia Leyderman - Kfar Silver High-School and Ort Rogozin High-School, Kiryat-Gat. • **Advisors:** Dvora Katchevich, Malka Yayon, Rachel Mamlok-Naaman, Avi Hofstien. • **Institute:** Weizmann Institute of Science, Department of Science Teaching, Israel



Sofia's group during the design of the module



Profiles 2011-2012

Second prize in the competition* on inquiry "How the homogenizing time affects the stability of the cream"



Microscopic view of the cream before homogenization

Hazard from above: Which sunscreen should we choose?

Sofia Leyderman, Boaz Hadas and Irina Raiman

- **Opening scenario** - students observe TV commercials regarding different types of sunscreens.
- **Brainstorming activity** - students raise various concepts regarding relevant sunscreens.
- **Web search** - students gather information related to these concepts.
- **Presentation** - students share the information collected in the Web search.
- **Summary** - the teacher adds information, organizes and summarizes the knowledge gained.
- **Design and preparation** - students design and prepare a sunscreen in teamwork.
- **Product/market survey on sunscreen** - a social dimension.
- **Decision Making** - students decide which sunscreen they should use.



Video on sunscreen
<http://goo.gl/PNEadv>



Second prize in the competition* in the Video category "Sunscreen".



Sofia presenting the design of the module

Profiles 2012-2013

First prize in the competition* on inquiry "How the fat percentage in ice cream influences the melting time of the ice cream"



The equipment for the experiment

We investigate Ice-cream

Sofia Leyderman and Edna Cohen

- **Opening scenario** - the class prepares ice cream by playing with a special ball.
- **Brainstorming activity** - students suggest questions related to ice-cream.
- **Web search** - students gather information related to ice cream
- **Design and preparation** - students make ice cream in small quantities in test tubes and suggest research questions on the subject.
- **Decision Making** - students choose their favorite ice cream according to relevant criteria

*The national competition for chemistry students "We've got chemistry" focuses on the chemistry of everyday life and in the chemical industry. It is held annually at the Weizmann Institute of Science. There are various categories in which students can compete: articles, photographs, posters, inquiry and videos.



Sofia and Edna designing the ice cream module

Profiles 2013-2014

Student's Reflection

"We chose this question following an experiment we did as part chemistry lab unit, it interested us and we decided to explore it. During the work, we prepared ice cream with different fat percentages, we tasted, measured time, compared the ice creams that we prepared. We worked on the research for a long time; we prepared a poster with photos, a presentation and a long lab report. We presented our work in the first round of the competition. This assessment was a little hard, with a lot of stress, we felt lack of experience and fear, but we managed. We met in the finals with other groups from around the country, listening to all the lectures and presented our work as well."

"At the closing ceremony of the final event we were very happy when they declared our winning; we got a reward and 100 in the chemistry lab matriculation exam."

"The final competition was very significant and contributed a lot to us."

"The teamwork was fun. Our teachers, Vilnius Iserson and Sofia Leyderman helped us a lot and guided us throughout the work, and accompanied us on the presentation of the project and event finals."

"Family and friends were a big part in the success of the project because of the support, interest and excitement. The principal, teachers, and students were very proud of us!"



Sofia's students presenting their posters during the competition