

Science 4 all



The Erasmus+ magazine

June 2017

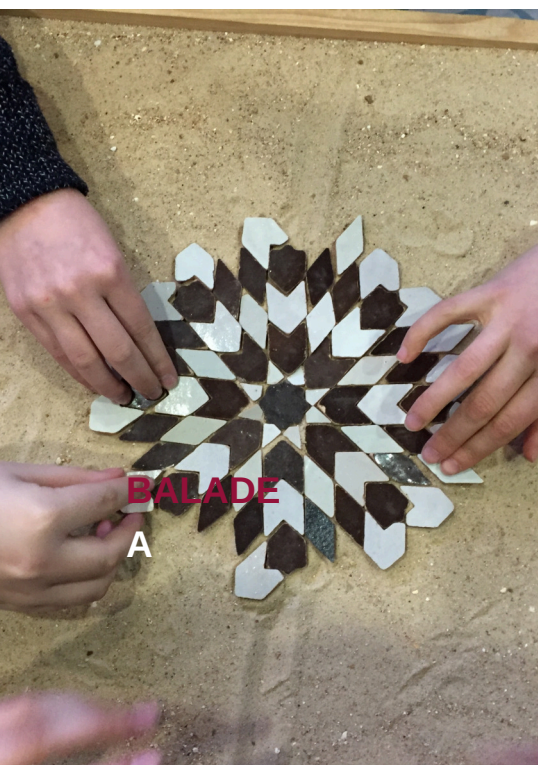


Mobilities

The partners have been working hard and having fun for a year.

Activities

In every country, many scientific events have nourished students.



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The "Science 4 all" project is changing our lives, opening our minds and helping us to appreciate science.



Teachers are discovering new application to teach.



How can we teach differently ?

In Sintra, active European teachers shared their enthusiasm in teaching.

To launch the "Science 4 all" Erasmus+ project, teachers met in November 2016 in Sintra, Portugal in order to get to know each other.

During 5 days, they were discussing new ways of teaching, discovering new digital tools, comparing different school systems of 4 countries and planning all future activities of the project in detail.

It was a really intense working week in a friendly atmosphere.

Thank you, the Portuguese team, for your perfect organisation!



The Science 4 all European teams

Teachers are brainstorming for some solutions.



Patrícia Coelho, English and German teacher (team member) shares her experience

I am a Portuguese teacher taking part in the project and I am very interested in understanding what drives our behaviour as teachers.

Therefore, I thought the best way to get a conclusion would be to ask beforehand some questions to students of different classes and later ask the participants those same questions during the workshop.

To avoid influencing the results, teachers were asked to brainstorm answers to the questions previously placed to students. Students' results were shown only at the end of the workshop. It was surprising to realize that both students and teachers DO have similar opinions regarding what determines teachers' behaviour. In fact, both groups consider that most teachers prefer to use traditional teaching methods simply because they are used to them, and since teachers believe students are better focused during traditional classes. Likewise, both think that some teachers do not innovate because they are afraid to increase their workload.

In fact, a substantial number prefer to use textbooks and may be even scared about using ICT in their classes as they feel students would know far more than themselves on that field. Nonetheless, when asked if the use of ICT was an innovative teaching method for them, students had a slightly different opinion from their teachers. As far as students are concerned, they consider that it allows them to explore subjects without using books, that they are already addicted to internet devices in a new Technological Era where pencil and paper can be set aside. Though sometimes sharing the same opinion, teachers mentioned that they believe the overuse of ICT can demotivate students, as they are not always taking an active part during the class.

So, what seems important to keep in mind is to avoid overusing ICT and try to find a balance between technology and other methods, keeping the focus on student social skills. This will fight the loss of social competences that can already be felt when students are overexposed to ICT.

Some words:

"I've discovered new digital tools, I will change my way of teaching"

"I've realised that every country faces same pedagogical problems"

"this project has given me the motivation to continue my job"

"after each mobility, we go back home with loads of energy"

"Students' parents are so impressed by progress their child has made during the year"

Interesting workshops

The visit to the mountains was the beginning of the reflexion about the weather station to be built for the next year.



A trip to Zakopane mountains

Entrepreneurial workshop

Transnational teams had to invent a product with materials they had been given; then they tried to fix a price to gain money.



The workshops involve participants' creativity

Krempachy: the first mobility of the project:

Anxiety before and happiness on the way back !

Before the trip, some people were stressed but we were very impatient and excited to meet our families! During our trip, we were very happy to discover the city of Krakow, to go to the swimming pool, to the Tatras mountains and visit the salt mine. We improved a lot our English, because our families didn't speak French but Polish, so we had to speak English. We created a little dictionary, we made a toy with different materials (bottles...), in groups, we created a «book company». We liked an activity called «seller and buyer ».

Some pupils were sellers, others were buyers, the seller had to sell their apples at the highest price and the buyer had to buy the apple at the lowest price. We loved visiting Krakow. It's a very beautiful town, we saw churches and we walked in the streets... Polish families are very welcoming and sympathetic. We did activities with them: bowling, ice skating. We learnt more about their way of life, their habits, the food, the schedules...

Chloé, Inès, Mathilde, Océane, Bastien , Sofyan.



Students are discovering the importance of mathematics in cooking

Discovering a new country and its culture

Apart from working at school, we had a chance to visit Krakovia. Each country had a guided visit throughout the old city in its own language which was very appreciated by the students.

coordinator of the project took us to the Water Park in Chochołówct . We were quite astonished to bath in warm water. It was really pleasant. We had real fun!

Thank you, Poland, for this wonderful week!

We loved wandering in the streets looking at old buildings like the University Jagelonne. We were surprised to see the Retable de Vit Stwosz to be opened just as we entered the basilic. It was fantastic! During the afternoon we went to viist the Wieliczka salt mine. It was a perfect day but the day we preferred was the day when Ula, the

Pedagogy

A new tool to teach Kahoot

Teachers were taught how to create Kahoot quizzes. So, the Science teacher's first geographical game with 20 questions for revision was created. As a result, students had a fantastic and fun time playing the game and the teacher of Science decided to implement this kahoot-system into her teaching practice.



A Science Museum

We had a very nice time in the science museum of Tartu. We had a special workshop about ADN. With simple words and sweets, we understood how our genetic body is made.



A student ADN with sweets bears

Estonia, a country full of interesting places



Visiting Tallinn

Before the trip, we were a little anxious but very happy to travel and meet our partners in Narva, Estonia. «I loved Tartu because there was a science museum; in it, there were attractions and it was fun! I loved the beach too because it was sunny and it was beautiful». (Sophie)

«I loved the bowling and the visit of Tallinn because we wandered around the city. We saw an Orthodox church and it was colourful. » (Juliette)

«I loved the mine because it was very interesting to eat inside the mine. I liked Tallinn too.»(Hugo)

"We had also a wonderful day on the seaside with a terrific weather: Estonians said: "it was the first day and the last day of summer (May, 20th). we could not believe it!» (Sophie)

We think we have improved our English because we spoke only English with students, teachers and families. Our hosting families were very nice.

It was also strange to stay next to the Russian border.

The weather station in preparation

<https://www.slideshare.net/blandineboureau/progress-of-the-weather-station>

Here is a presentation made by students from each country about the progress of the weather station.

EXHIBITIONS ON SCIENCE



A French group decided to work on special effects since the creation of cinema



Estonian students have been enthusiastic about creating the exhibition



Marie Skłodowska-Curie is the the pride of the Polish students

Each country created locally an exhibition on sciences

During winter time, each country had to plan and create an exhibition in their school halls on mathematics, science and professions. France was

responsible for this activity and set up main rules like content, place, deadline, opening date etc. Portugal chose Science: Herbarium (ecological trail) and posters about Maths, "Pi day" and jobs.

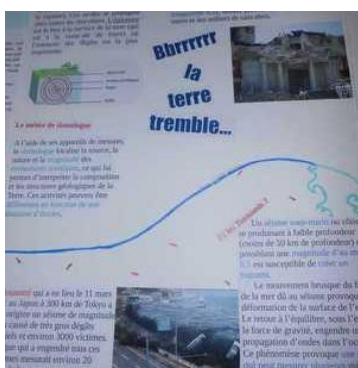
Estonia chose famous Estonian scientists and France chose subjects about career information.



EXHIBITIONS IN SCHOOL HALLS ON MATHS, SCIENCE & PROFESSIONS

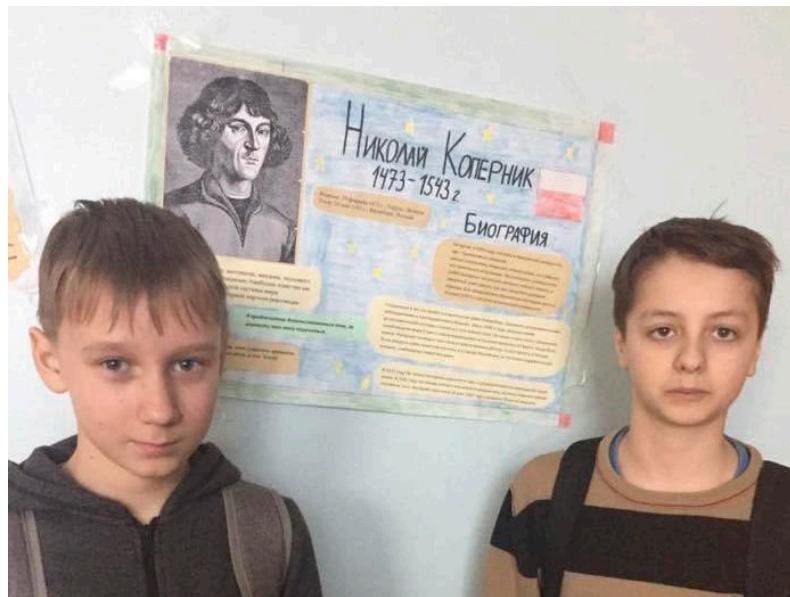
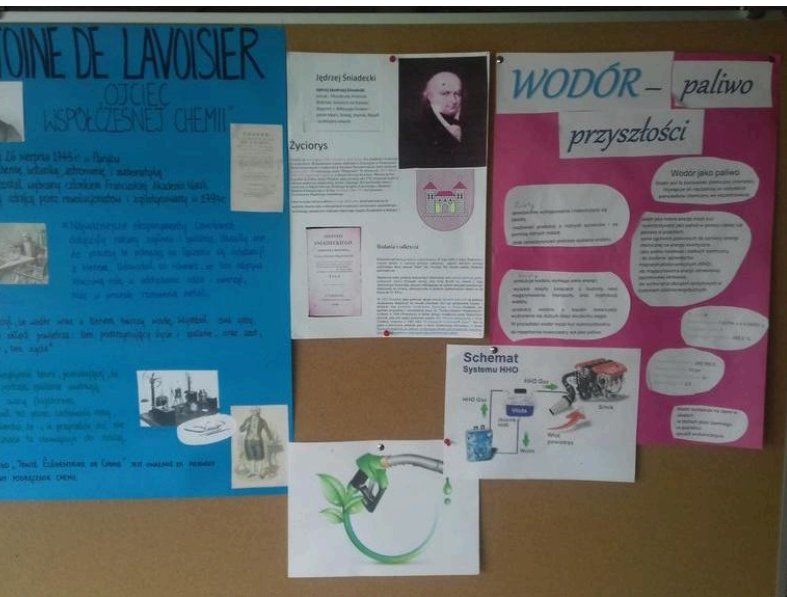
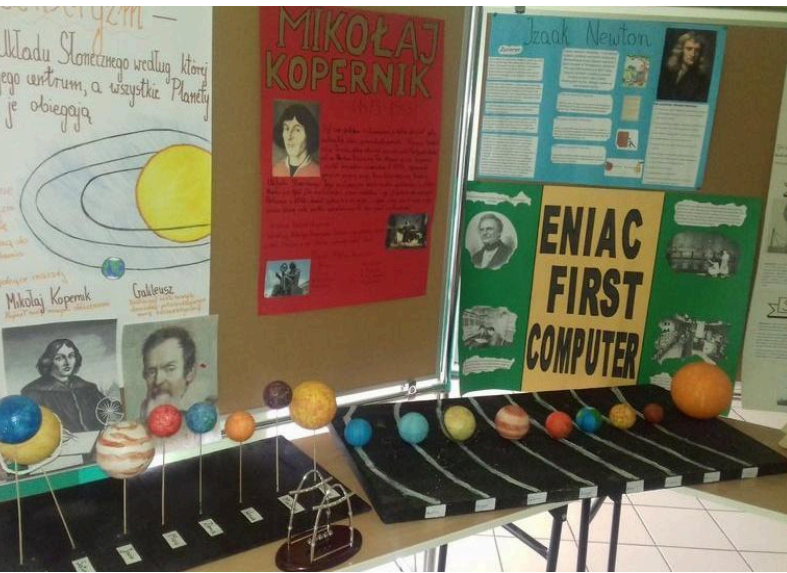


A French group had great creativity to explain earthquakes



Portuguese students hung a huge exhibition in the corridors of the school

Polish students discovered what the first Computer looked like.



In March, Polish school had an exhibition which was based on mathematics and professions. This took place in the school hallway. There were lots of posters which were about Nicolaus Copernicus, Isaac Newton, etc. On the exhibition, there was an airship made of gypsum; an air balloon made of sticks, paper, and a balloon; the solar system made of styrofoam; and an aeroplane made of paper and wooden sticks. During this, a lot of kids went up to the exhibition and looked at the posters and items that were there. The boys mostly were interested in the airship and the girls mostly were interested in the solar system. They were both interested in the posters, with the Nicolaus Copernicus poster being the most popular one.

Talented Estonian participants from Narva Kesklinna Gümnaasium under supervision of Maths and Science teachers participated in a very interesting work. First, the children got acquainted with biographies of famous scientists who made a huge contribution to science. Then the students produced bright and informative posters about these great people and about professions related to mathematics, physics, chemistry. Finally, all the pupil of the school found new information on the following ingenious scientists: Nikolai Copernicus (Poland), Francois Viet (France). Pierre Fermat (France), Rene Descartes (France), Archimedes (Ancient Greece), Sofya Kovalevskaya (Russia), Maria Skłodowska-Curie (Poland), Nunish Pedro (Portugal), Nikolay Lobachevsky (Russia), Pythagoras (Ancient Greece), Nikolai Pirogov (Estonia),

.Edgar Kant (Estonia), Blaise Pascal (France), Karl Karlovich Klaus (Estonia), Emil Christian Lenz (Estonia), Martin Beheim (Portugal) and Andre-Marie Amper (France).

All students enjoyed working on the exhibition and learnt a lot about famous scientists.

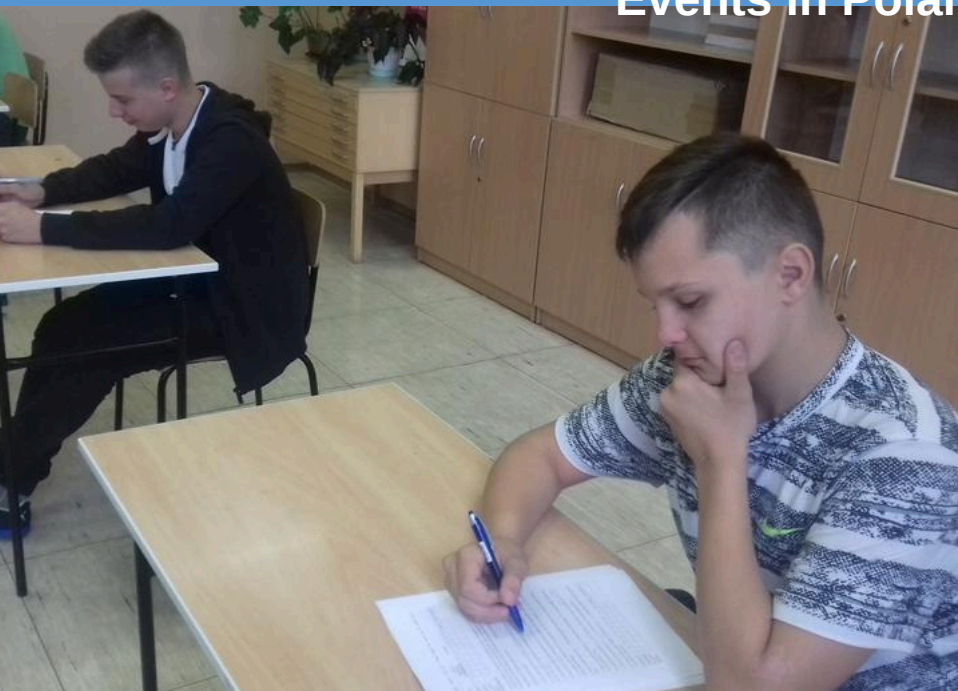


The video-conference: it had very nice atmosphere and everyone had fun.

Everyone wanted to repeat that.

The conference was held on 16th February 2016 at 12.30 o'clock. It lasted 50 minutes. Students and teachers from Poland, France, Portugal and Estonia took part that online meeting. We talked about Christmas traditions in our countries. Christmas carols were sung in English, Polish, French, Portuguese and Estonian.

Polish first-graders wore Christmas costumes presenting Christmas characters. Questions were asked about Christmas Eve dishes, customs, Christmas tree and carols. Students learnt a lot of interesting information about traditions of the partner countries. Small problems with connection appeared but the conference was a big success as so many countries could communicate with each other at the same time.



Competitions, museums visits... Polish student had many opportunities to discover the world of sciences

The Polish school organised several activities for pupils in September and October 2016: 29.09. Mathematical Olympics Game Junior. Mathematical national competition for pupils from lower secondary schools <http://omj.edu.pl/>. There were only two participants, but the contest is very difficult: pupils have to prove mathematical theorems. Contests organised by Board of Education in Krakow: 20.10 Chemistry, 25.10 Physics, 26.10 English, 27.10 Biology, 4.11. Geography, 8.11 Mathematics.

Night of scientists

"Night of scientists" 30.09/1.10.2016 Twenty Polish pupils and teachers of Geography and Biology took part in the "Night of scientists" in Krakow. It is a huge event organised by Malopolskie Voivodeship and many scientific institutions for example universities. <http://nocnaukowcow.malopolska.pl/>

Our group participated in workshops in Geological Museum about volcanoes and rocks, then a show about dinosaurs in the "Kijów" cinema.



Scientific trip to Kraków 6-7.04.2017

Twenty Polish students went to Kraków for 2-days scientific trip. They participated in workshops on chemistry in Jagiellonian University (Faculty of Chemistry), visited a Krakow Gigantic Observatory and The Glass and Ceramics Centre (Lipowa Street 3), then watched a film "Maria Skłodowska-Curie" about Polish famous scientist and Nobel Prize winner.

Experiene in front of the students

Pi DAY

A teacher of Maths organised a Pi-day in Narva Kesklinna Gümnaasium. 24 students of our school took part in a KAHOOT competition. The game was based on the information students provided on their posters several weeks before, which included famous scientists from Estonia, Poland, France and Portugal



Co-funded by the Erasmus+ Programme of the European Union

The Fortaco factory



An impressive place

All 43 students and 3 teachers were invited to visit a Fortaco factory in Narva. The factory operates in the heavy equipment market. A guide had shown the project participants various machine tools located in a huge area of the building. The students found out that the factory had had lots of experience in producing different operator cabins, machining services and welded steel components. Some of the students had been really impressed with this place.

In April 2017 the project participants went to Narva College of the University of Tartu, where they had an exciting excursion. The children found out not only about various study programmes that the institution offered, but also received information about the history of the building and some secrets of the university. The students were convinced that studying at the University is prestigious and fascinating.

A labour market event

The Estonian participants of the project "Science 4 all" had an opportunity to meet two career specialists from a career centre Rajaleidja. The students discovered what kind of specialists work there, as well as what kind of help is available in Rajaleidja. In addition, all 33 participants had a chance to check their erudition in a game, which was based on various types of jobs. Finally, all the students left some feedback for the career experts and also asked them personal questions, answers to which they received by email.

Gardens and Fountains

in Versailles

On the 26th of September, year 7 pupils went to the

palace gardens to understand how the fountains work. The guide Aurélie showed us some experiments about the water transmission in the pumps. We also had the chance to admire the water shows. It was magic! Then we had a look at the 'jardin à la française' (symmetrical plantation).
Valentine, 6e6



Connected vessels

Europe day

The European Union celebrates Europe Day on May 9th.

The date marks the anniversary of the Schuman Declaration of 1950, considered to be the first official step in the creation of what is now the European Union. Europe Day is an occasion for activities and festivities which bring closer Europe population between them. The associations, schools and citizens mobilize to celebrate Europe Day.



Students sculpted their shield

A day in Paris

On Thursday, January 19th at 8 a.m., the 4e1 and 4e4 classes left Versailles to go to the "Institut du Monde Arabe" in Paris with Mr Bouteiller, Mrs Trofimoff, Mrs Boureau et Mrs Da Rocha. Once arrived, the classes were separated in groups and began 2 activities: visit of the museum and workshop on "zellige". The zellige is the art of the mosaics. In groups of 7, pupils received a wooden frame filled with sand as well as some coloured pieces of ceramic accompanied by a model. Then, pupils reconstructed

meticulously the model from the centre to the edge. Afterwards, we visited the museum. A speaker gave many details about a lot of scientific subjects. It was an interesting visit and we learnt much about it.

On the same day, we visited also the "Palais de la découverte" where we had a conference on probability and chance and another on symmetry and discovered pavements in Alhambra. Fantastic!!
I loved it
Inès



making a zellige

A conference about satellites and space for year 9 and a visit to a Middle Ages castle for year 8

On Tuesday, April 25th, 150 students attended a conference on satellites and space. Alice Anglaret, who is an employee of Airbus company, talked about rockets, astronomy and chronology of space exploration. She explained Ariane's project and space habits. France built six Ariane rockets. She also talked about Thomas Pesquet (who is a French astronaut), he stayed 6 months in space. He filmed the earth and repaired the space station. He came back on June, 2nd. The conference was very interesting and we learnt many things. However, it was a bit long so it could be boring.
Ariana and Valentine

On May 5th, 150 year 8 pupils went to visit Guedelona medieval castle situated 200 km from Paris. They went there by car. Guedelon is a place where workers are building a castle using tools and methods from the Middle Ages. The students took part in two workshops: a geometric workshop and a stone cutting workshop. The pupils discovered medieval jobs and had free time in the afternoon. The school trip went very well. It was really fun to draw an arch with a rope only!

Julien

Volunteer work

In Sintra Mountains

We were greeted by the forest engineer Diogo and the biologist

Paula, who told us why and how to rip out the acacias. After the explanations we began to work, the students had an excellent performance and could count on the help of the biologist, Paula. Acacias are an invasive species; they exist in large quantity, hence they don't let other important species grow.



Students had excellence performance in tearing the accacias

In addition, they burn very easily, which means that if a fire occurs they will spread it more easily. As we were explained in the beginning there is a specific way to tear off the acacias so they will not grow again - they must be pulled as close to the ground as possible so that the most of the root leaves, if we leave the root, the acacia will soon grow again afterwards.



Article written by Diana Neto, 8B

Visit to the Serra de Sintra, October 2016

Nothing better than starting the school year with a trip to the beautiful Sintra Mountains.

Despite the tricky weather, because it ended up raining, we had a lot of fun. We left school in the morning and walked to the village of Sintra where we all gathered in front of the National Palace and waited for the biologist who would guide us on this visit.

We walked westward along roads and paths and took a break for lunch where we recharged energies for the rest of the ride.

Along the way the biologist was drawing attention to some curiosities about Sintra and after lunch he told us of several

living beings, among them the "vacaloura" beetle and a bat that was thought to be extinct.

The presence of this species of beetle is attributed to the Park of Pena, Park of Monserrate and Quinta da Regaleira, sites where we passed. As for bats, a large colony was discovered recently in a water mine at Quinta da Regaleira, an excellent news for Nature. With the rain we returned to school. Visits like this are to be repeated!



Légende Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit.

The Origin of Species

An intersting and fun day

On December 15, 2016, class 8D went to Lisbon on a field trip, in the scope of the "Science4all" project. We went to Lisbon by train altogether and when we arrived we first went to D.Maria's theatre to watch a multimedia performance about the origin of the species. The theme was very interesting. Then we went to two parks and stopped at one of them to have lunch and in the other we had the opportunity to play some games together. Next we went to a museum to see an exhibition with the same theme as the theatre, "The Origin of the Species". Before returning to Sintra, on the way to the train station, we stopped at Starbucks and had some drinks. took

pictures and talked. Then we took the train and got back to school. It was a very fun field trip and for sure everyone would like to repeat it. Ana Margarida Galinho, 8D (student and participant in mobility to Poland) Before returning to Sintra, on the way to the train station, we stopped at Starbucks and had some drinks, took pictures and talked. Then we took the train and got back to school. It was a very fun field trip and for sure everyone would like to repeat it.

Ana Margarida Galinho, 8D (student and participant in mobility to Poland)



Every country set up competition in their school according to an international event like the Pi day or national like Mathematics competition (Kangourou, mathematics games ...)



In Estonia, Kahoot competition in mathematics

Competition about entrepreneurship during the mobility in Poland



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*A latest
picture of
the group
taken in
Tartu,
Estonia*

Erasmus + : a project which creates links

The "Science 4 all" teams thank the European Commission for the chance to progress in English, to discover new cultures, to become more autonomous and get more confidence in their daily work, to learn a lot about science, to have fun in visiting countries, and to create deep links between students and teachers.

The entire project can be seen on

<https://twinspace.etwinning.net/25393/home>