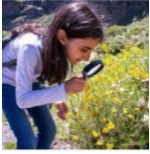


Past EYH monthly activities

A “nature and geology” walk on the Mont Salève



On our last visit, we went on a wonderful nature and geology walk on the Salève plateau, accompanied by Emmanuelle Gabioud from Vianaturae. We learned about the history of our planet and the Salève, how to identify different types of rocks and much more.

Did you know that the Salève was formed between 200 and 66 million years ago?

And that it was formed by the accumulation of the remains of flora and fauna under the sea?

The Salève is part of the Jura Mountain range and was once almost completely under ice!

The Salève was then eroded by the glaciers of the most recent ice age into the shape it has today. We also picked some beautiful mushrooms (*lépiote élevée* or *coulemelle*), which we took home to enjoy with the whole family!

Visit CERN's CMS



During this visit to CERN, girls will have the unique opportunity to explore the CMS detector experimental site virtually. CMS scientists will explain the physics and technology behind the experiment, show the surface and underground areas at Cessy and answer questions.

CMS is a versatile detector, meaning it is designed to observe any new physics that the Large Hadron Collider (LHC) might reveal. At 27 km in length, the LHC is the largest and most powerful particle accelerator ever built. The CMS is located at one of the four collision points, called Point 5.

The tour covers a wide range of physics. The Compact Muon Solenoid (CMS) is a versatile detector installed on the LHC ring. The CMS experiment is one of the largest international scientific collaborations ever undertaken. It involves 4,300 particle physicists, engineers, technicians, students and support staff from 179 universities and institutes in 41 countries.

Visit CERN's science portal



Discover CERN, the Universe and the wonders of quantum physics with real scientific objects and three interactive exhibits:

- 1) Explore how the Universe works on tiny scales: Discover the world of particles as if you were tiny yourself. Sing quantum karaoke, spot entangled particles, play the quantum tunnel game and try your hand at quantum tennis.
- 2) Explore CERN's particle accelerators. An immersive scenography transports you into the underground tunnels. Play the control room game, pilot a robot, dig a tunnel and play proton soccer.

3) Back to the Big Bang: follow the path of your particles before they become you! Let yourself be transported through the different stages of the Universe, design your own star and eject it into space, play with the proton balance and try your hand at trapping antimatter.

Young reviewers sought to evaluate a scientific article



The animators, who have experience in science outreach or in the peer review process, introduce the Young Reviewers to the idea of a life in science, the basics of science publishing, and how to approach an article with a critical eye for feedback.

While the young girls are the primary sources of feedback for the manuscript itself, the animators play a key role in helping them to provide the authors of the article with an honest and constructive review.

Visit to the control tower at Cointrin airport



A visit to the control tower at Cointrin airport is an exciting experience that offers a unique perspective on the aviation industry. The control tower is the nerve center of any airport, guiding aircraft movements and ensuring passenger safety. During the tour, visitors witness the complex and systematic operations of air traffic control, observing cutting-edge technology and interacting with experienced air traffic controllers. The tour enables visitors to understand the crucial role of air traffic control in ensuring flight efficiency, coordination and safety. It's an excellent opportunity to discover the aviation sector and appreciate the hard work and diligence of air traffic controllers in ensuring smooth, unhindered flights for everyone.

Visit to HEPIA's CMEFE wind tunnel



A wind tunnel is a device used in aerodynamics and fluid mechanics research to study the behavior of fluids (usually air) around objects such as aircraft, motor vehicles, buildings, bicycles, motorcycles, etc. This research is essential for improving the design, safety and performance of these objects. The wind tunnel is currently experimenting with professional skiers. During our visit, you too can try out the wind tunnel on skis!

Drone flight in HEPIA's Aero-Nautic's-Space laboratory



In 2015, HEPIA's Aero-Nautic's-Space Laboratory invented digital and pixelated wind tunnels. These tools make it possible, for the first time, to reproduce Mother Nature's real wind, with gusts and turbulence. It is now possible to study, under authentic conditions, wind turbines, drones, sailboats, birds, and even lizards clinging to the trunks of palm trees during hurricanes. This technology is now found in every major research center in the world. NASA used our winds to develop the very first drone (Ingenuity) to fly on the planet Mars. Researchers and engineers Dr Marilou JOURDAIN, Audrey CIMADOMO, and Angèle CUVET will plunge young girls into this new world of 21st century pixelated aerodynamics, in the service of Nature, sport, and sustainable development.

Girls will be able to:

- program their own wind on the computer and reproduce it in the wind tunnel

- Fly drones in a storm
- Position themselves in the wind using a Motion Capture system

Visit of the Conservatory and Botanical Garden



Explore the fascinating world of biodiversity at the Geneva Botanical Garden, from Darwin's time to cutting-edge genetic sequencing. Immerse yourself in a captivating workshop that discusses species classification and gives an insight into how botanists have preserved and classified specimens throughout history. This botanical collection, one of the six largest in the world, houses samples of both extant and extinct species.

The Geneva Conservatory has an active research team that leads sample-collecting expeditions from Madagascar to the Brazilian rainforests. In this workshop, specially designed for Elargis tes Horizons, you can put yourself in the shoes of a curious botanist and take part in the analysis and exploration of the varied world of plants and the evolution of species.

We'll also have the chance to visit the molecular biology laboratory, normally closed to the public!

Guided tour of the Natural History Museum



Come and visit the Museum of Natural History's "Fascinating animal stories"! We'll be discovering species that are gone but not forgotten, as well as the evolution of animals and taxidermy.

We'll try to answer the following questions:

- Why are birds said to be dinosaurs?
- Why did the kiwi stop flying?
- Why is the polar bear white?

... etc.

Visit of the Sauvery Astronomical Observatory in Versoix



What is an observatory? What are the main areas of research in astronomy? What tools do astronomers use? What's the day-to-day life of an astronomer? You'll discover all these aspects during a short introduction in the Observatory's Aula.

Visitors can then watch a ten-minute film presenting some of the Observatory's key activities and visit an exhibition room illustrating the astronomical objects studied. The tour continues with a visit to the computing center and mechanical workshops, ending at the dome housing a 70 cm telescope.

Visit schedule:

- Standard tour/explanations of how the observatory works
- A review of the types of jobs at the observatory and the subjects to study at school to work/research in this field
- Some current astronomy topics
- A question-and-answer session with a snack

Visit to RTS television



Sign up and get to know the RTS professions and presenters who work with you daily to discover what's behind the screen and how a program is made. Discover the magic behind the scenes at RTS and tour the bowels of Switzerland's largest media organization with RTS guides.

Virtual reality game developpement



Virtual reality is the next big technological wave. There will be commercial innovations over the next few years, and it will become an everyday tool in education, the military, video games, live events, real estate, healthcare, interactive desktop applications, social VR, project collaboration and engineering.

We've teamed up with an innovative VR developer in Carouge, Geneva, to offer the opportunity to experience and understand the development of this exciting new technology.

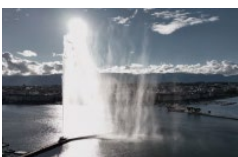
Join us at Virtual Room Geneva for the experience of a lifetime and an explanation of the technology behind virtual reality!

Visit the Coty perfume factory



On this tour, girls will learn all about the perfume industry. After a brief introduction to Coty's history, which goes back over a century, the perfume manufacturing process will be explained, from the selection of raw materials to the creation of the final formulas. Girls will also be able to watch perfumery experts creating unique and sophisticated fragrances. The tour will conclude with explanations of the importance of packaging in this industry, the marketing and sales strategy for product commercialization, and Coty's strategy for reducing its carbon footprint to establish sustainable development.

Visit the Jet d'eau



Join the exciting tour of the Jet d'Eau pumping station, presented by Services Industriels de Genève for Elargis tes Horizons! The Jet d'Eau is not only a world-famous symbol of the city of Geneva, but also an ingenious and technically exceptional installation.

On this tour, we'll learn about the history of this late 19th-century invention and discover how it works. The tour will end with the Jet d'Eau being turned on, much to the delight of the girls, who will have the opportunity to press the button to turn it on!