



### Leysin American School Educational Research



# Welcome

Leysin American School Educational Research (LASER) has its roots in quality professional learning for LAS faculty members. Since its inception over 10 years ago, LASER has grown significantly and, in addition to professional learning, now manages our Alpine Institute, the International Award, citizen science, the LAS *edge*<sup>®</sup> program, the resident and visiting scholar programs, and workshops for external groups in innovative teaching and learning. LASER is also the caretaker of our sustainable garden and hosts annual student events including Globe Day and Global Futurizer.

### MEET THE LASER TEAM

Aaron Deupree:	English Language Acquisitio
Dan Patton:	STEAM
John Harlin:	Alpine Institute
Nicola Cosgrove:	Agile in Education
Paul Magnuson:	Self-Regulation

### CONTACT US









LAS *edge* is a program for extraordinary kids. This program allows students to pursue their interests and discover a direction for further studies by selecting a specialization and embracing the program's core values throughout their studies: collaboration, uplift, imagination, respect, and effort.

LAS *edge* students learn collaboration and self-regulation through creative expression and exploration. Students present their work at the end of the program in an oral defense, sharing their portfolio with a panel of teachers and students, in order to receive a certificate or diploma, depending on the amount and quality of their work.

### LEYSIN AMERICAN SCHOOL EDGE PROGRAM

### LAS edge offers students four specializations:



### Alpine Institute

The Alpine Institute is dedicated to mountain science, sport, environment, and culture.



### Design and Performing Arts Conservatory

The Conservatory nurtures talent in music, theater, and visual arts.



### Da Vinci Lab

The Da Vinci Lab encourages students to become STEAM innovators.



### Young Founder's Incubator

The Incubator helps students develop an entrepreneurial spirit and sense for business.





During their time at LAS, students live in one of the most spectacular places on earth. Our goal at the LAS Alpine Institute is to deeply connect students with their local mountain environment.

As a center for mountain science, sport, caretaking, and culture, the Alpine Institute works with teachers across the curriculum to build an understanding and passion for the mountain landscape of our Swiss home. The Alpine Institute is in charge of a number of initiatives, including:

THE DUKE OF EDINBURGH'S INTERNATIONAL AWARD

The Duke of Edinburgh's International Award is the world's leading youth achievement award. This award brings together practical experience, life skills, and fun. The International Award requires long-term commitment to achieving goals, teamwork, resilience, positivity—and some cool multi-day camping trips.

### LEYSIN AMERICAN SCHOOL ALPINE INSTITUTE

#### ALPINE CLUB OUTINGS

We lead many outings throughout the year. They range from simple hikes to ascents of 3,000m peaks. We also explore caves, ski tour, stay in mountain huts, swing from bridges, and enjoy wildflowers and fresh air.

#### MOUNTAINEERING ACTIVITY

Mountaineering is the art of traveling through the mountains. It includes climbing, hiking, camping, snowshoeing, and, just in case, mountain rescue techniques. We do all of these and more.

### LETS/CITIZEN SCIENCE

The Local Elevation Transect Survey (LETS) is LAS's signature citizen science project, where students monitor ecology from the valley floor to the summit of our mountain. By carrying out this study over many years, our work is becoming a long-term climate study.



## Student Conferences

Students are motivated by presenting to their peers, an experience which prepares them for the adult world where presentation skills are essential to university and professional success.

#### GLOBE DAY

Globe Day offers students the chance to share their independent and group projects in a professional conference setting that includes keynote speakers and breakout sessions. Globe Day has welcomed hundreds of students and teachers from visiting schools across western Switzerland.

#### GLOBAL FUTURIZER

This annual program gives students skills to solve real-world problems in a design thinking process developed by our partner, Tazebaez, of Bilbao, Spain.

#### TEDx LEYSIN AMERICAN SCHOOL

Every few years students present at an LAS-hosted TEDx conference, where we hear from impassioned young people who relate their stories as only youth can.



### Professional Conferences

LASER regularly hosts professional conferences where educators and researchers share their work and develop new or improved methods of teaching. These have included:

#### STEAM CONFERENCES

These conferences, sponsored by the Educational Collaborative of International Schools, address new ways to combine Science, Technology, Engineering, Art, and Mathematics (STEAM) for connecting education with the real world.

#### WORKSHOPS

We have offered workshops on "Synergies Between Education and Citizen Science" and "Using Citizen Science to Teach Climate Change in Schools," sponsored by the EU's European Cooperation in Science and Technology (COST).

#### TRAINING

We have hosted training for leaders in the International Award to develop themselves as effective coaches and outdoor leaders. We've also hosted Agility training workshops run by experts in the field and sponsored by Scrum Alliance.

## Citizen Science



The Local Elevation Transect Survey (LETS) is a project that investigates how ecology varies as we move up the mountain from the valley floor below Leysin to the summit of the Tour d'Aï. Because elevation mimics latitude, we are learning climate and ecological lessons of global proportions.

LETS is embedded in the school's culture and is becoming a long-term climate study much larger in scope than is available to most scientists—while still serving today's learning needs.

The LETS Study Climate project uses NASA's GLOBE protocols so that schools around the world can collaborate on a citizen science project.

LASER chairs the European Citizen Science Association's working group on learning and education and contributed a chapter to the book *Citizen Science: Innovation in Open Science, Society and Policy.* 



## Agile in Education

The notion behind Agility is that we are at our best when we collaborate, work in short, iterative cycles, and give and receive feedback. We pass these skills on to students through our teaching and to faculty in how we relate to each other. Since the beginning, a central theme of LASER's professional learning program has been to help students explore self-regulated learning. Because we're preparing students for an unpredictable and rapidly changing world, skills that support lifelong learning are at least as important as the content of their school subjects. Beginning with an experimental class in 2013-2014, LASER has led an ongoing investigation of self-regulated learning supported by Agility, a concept widely used in the IT world. LASER faculty have been instrumental in making Agile in Education increasingly mainstream, both at LAS and elsewhere. We've blogged, published, and presented on Agility; we've created student-centered programming based on its principles; and we collaborate with the world's largest provider of certification in Agility.



Climate Changers Climate Changers is a powerful effort to affect the climate crisis through direct efforts at LAS, both in operations and in education. LAS's Climate Changers are directly confronting the school's challenges, sharing how we're addressing them, and celebrating successes as they arrive. We are actively learning from other schools and in turn hoping to inspire them in their work to help solve the greatest challenge facing humanity in the 21st century.

The LAS Climate Changers' approach is based heavily on Project Drawdown, an evidence-based plan that ranks the top 100 proven methods to combat climate change. We are particularly engaged with Drawdown Learn, which encourages education about climate solutions based on Project Drawdown's insights.





## Resident and Visiting Scholars

The Resident Scholar program supports creative and self-driven staff in exploring educational issues that enliven their professional development while enriching the academic environment for all. LASER has now supported over 30 faculty members in curriculum, instruction, assessment, professional development, and research. Resident Scholars receive a stipend as well as additional funds to promote their projects through publications and presentations.

Over 50 Visiting Scholars and Artists-in-Residence from more than ten countries have spent time with our students and faculty members, bringing their unique perspectives on teaching and learning. Visiting Scholars have come from organizations, schools, and universities, and have worked alongside LAS faculty on presentations, articles, and other projects. Often the collaboration leads to ongoing partnerships well after a scholar's stay in Leysin.

### Workshops and Consulting

In addition to leading professional development for our own faculty, LASER works with schools and universities from around the world. We arrange one- and two-week courses on innovative teaching and learning on campus. Visiting educators join classes in session to observe students learning in diverse ways.

We are always delighted to share our experiences managing the many projects and programs we have developed. Please contact us to discuss how we can help you grow—and how we can learn from you.

International Award

Visiting and **Resident Scholars** 

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Accreditation



Professional Training



**Citizen Science** in Education





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