

### Next-Lab

Next Generation Stakeholders and Next Level Ecosystem for Collaborative Science Education with Online Labs



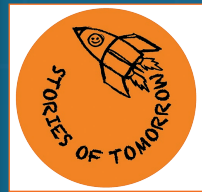
Next-Lab focuses on introducing inquiry-based science education (IBSE) in schools and continues the mission of the project Go-Lab, promoting innovative and interactive teaching methods in primary and secondary schools.

Next-Lab provides a varied portfolio of advanced online learning tools in science topics, which contains hundreds of virtual and remote science laboratories, inquiry learning applications and Inquiry Learning Spaces. Furthermore, there is an authoring tool for teachers they can use to create own cross-curriculum learning scenarios and share them with their students.

Using Next-Lab, students benefit from the rich, challenging learning experiences, shaping their science and technology knowledge together with social competencies. The innovative tools of Next-Lab guide students through the research process, helping them to acquire in-depth understanding of scientific topics as well as 21st century collaboration and reflection skills. <http://project.golabz.eu/project>

### Stories of Tomorrow

Students Visions on the Future of Space Exploration



Storytelling is a great way to support the development of students' inquiry skills and help them gain initial scientific experience while at the same time enable to them to use the potential of the imagination and creativity. The STORIES project is using the concept of storytelling a catalyst for the effective interaction between Arts and STEM disciplines which share in many ways similar values, similar themes and similar characteristics.

The project will design and test a new vision for teaching and help develop strategies for how teachers' roles and conditions can support and enable deeper learning for students. To do that, the project will include and use innovative and meaningful digital technologies, such as advanced interfaces, learning analytics, visualization dashboards and Augmented/Virtual reality applications and build a storytelling platform where students will develop and publish stories about a Mars Mission. <http://www.storiesoftomorrow.eu/>

### Schools Study Earthquakes



The "Schools Study Earthquakes" (SSE) Erasmus+ project focuses on the study of a physical phenomenon with great societal impact and proposes pedagogical practices based on inquiry-based methods that are more effective in science education. The objective of this combination is on one hand to increase children's and students' interest in science, on how science is made and how it affects everyday life, and on the other to stimulate teacher motivation on up-taking innovative teaching methods, subjects and practices to enrich and renew the science curriculum. One key objective of the project is to provide increased opportunities for cooperation and collaboration between schools across European countries and encourage relationships between stakeholders of both formal and informal education by establishing a network of schools that will study real data, do real analysis of real seismic activity in real time. The SSE project will enhance secondary science teachers' capacity to teach science effectively based on the pedagogical principles of inquiry-based science education while being able to engage students in employing real-problem solving skills, handling and studying situations, and participating in meaningful and motivating science inquiry activities. SSE is carried out by a consortium of educational institutes from five countries across Europe, namely Greece, Italy, Cyprus, Turkey and Bulgaria, all with significant seismic activity. <http://sse-project.eu/>

### PLATON

Promoting innovative Learning Approaches for the Teaching of Natural sciences



PLATON will provide teachers and school communities with a coherent teachers' training framework which will update their current teaching practices. More particularly, PLATON aims to offer an open and innovative training framework to teachers of primary and secondary education which will focus on interdisciplinary and inquiry learning as well as the collaboration between teachers of the same school unit. This way the project will strengthen the profile of the teaching profession by providing teachers with the necessary training that will allow them to master the use of inquiry learning in their everyday teaching and the necessary tools for involving their students in interdisciplinary activities where meaningful learning occurs as they consciously and explicitly link their new knowledge to an existing knowledge structure. <http://platon-project.eu/>

# GO-LAB: Global Online Science Labs for Inquiry Learning at School Summer School 2017



## GO-LAB

## Programme July 2<sup>nd</sup> – July 7<sup>th</sup>, 2017 Marathon, Attica, Greece



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	2 July 2017	3 July 2017	4 July 2017	5 July 2017	6 July 2017	7 July 2017
09:30 to 12:30	<p><b>Participants' Arrivals &amp; Registration</b></p>	<p><b>Overview of the Go-Lab portal and tools</b></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p> <p><b>Is it really inquiry? An example inquiry learning activity</b></p> <p>Nuno Gomes <i>NUCLIO</i></p>	<p><b>Going Interdisciplinary: The Big Ideas of Science</b></p> <p>Nuno Gomes <i>NUCLIO</i></p> <p><b>Inquiry in 45 minutes</b></p> <p>José Gonçalves <i>NUCLIO</i></p>	<p><b>Thematic inquiry learning. Best-practices and outcomes from the Schools Study Earthquakes project</b></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p>	<p><b>Collaborative Inquiry in School Classrooms</b></p> <p>Boris Berenfeld <i>Institution: International Laboratory of Advanced Education Technologies</i></p> <p><b>Hands-on workshop: Finalization of inquiry activities</b></p> <p>Panagiota Argyri <i>Model High School Evangeliki of Smyrna</i></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p>	<p><b>Participants' presentations &amp; Reflections and certificates</b></p>
15:00 to 17:00	<p><b>Introduction to the summer school</b></p> <p><b>18:00-20:00 Teaching Science by Inquiry</b></p> <p>Prof. Franz Bogner <i>Univeristy of Bayreuth</i></p> <p><b>Teachers Community Building as a Professional Development Opportunity</b></p> <p>Panagiotis Aggelopoulos <i>Ministry of Education</i></p> <p><b>Expedition Mars: From Simulation to Reality</b></p> <p>Gernot Groemer <i>Austrian Space Forum</i></p>	<p><b>Hands-on workshop: Working with the Go-Lab authoring environment</b></p> <p>Panagiota Argyri <i>Model High School Evangeliki of Smyrna</i></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p> <p><b>Visit at Cape Sounio, Sanctuary of Poseidon Dinner</b></p>	<p><b>The significance of misconceptions</b></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p> <p><b>Hands-on workshop: inquiry activities and supportive applications</b></p> <p>Panagiota Argyri <i>Model High School Evangeliki of Smyrna</i></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p>	<p><b>Visit to the Acropolis Museum and the Acropolis Dinner</b></p>	<p><b>Hands-on workshop: Finalization of inquiry activities</b></p> <p>Panagiota Argyri <i>Model High School Evangeliki of Smyrna</i></p> <p>Georgios Mavromanolakis <i>Ellinogermaniki Agogi</i></p> <p><b>Farewell Dinner</b></p>	<p><b>Participants' departures</b></p>

**Visit to Cape Sounio, Sanctuary of Poseidon**  
(July 3<sup>th</sup>, 18:00 – 23:00)



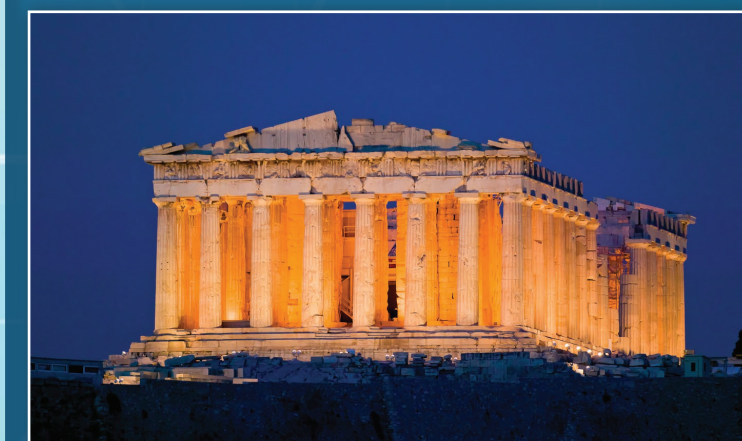
Cape Sounio is a promontory located 69 kilometres from Athens, at the southernmost tip of the Attica peninsula. According to legend, Cape Sounion is the spot where Aegeus, king of Athens, leapt to his death off the cliff, thus giving his name to the Aegean Sea. The sanctuary of Poseidon, one of the most important sanctuaries in Attica, is also located at Sounio. Archaeological finds on the site date from as early as 700 BC. Herodotus tells us that in the sixth century BC, the Athenians celebrated a quadrennial festival at Sounion, which involved Athens' leaders sailing to the cape in a sacred boat. The later temple at Sounion, whose columns still stand today, was probably constructed in 450-440 BC, over the ruins of a temple dating from the Archaic Period. Poseidon, the "God of the Sea" was considered to be a powerful god, second only to Zeus (Jupiter). The temple at Cape Sounion, was a venue where mariners, and also entire cities or states, could propitiate Poseidon, by making animal sacrifice, or leaving gifts.

**Visit to the Acropolis Museum**  
(July 5<sup>th</sup>, 16:00 – 18:30)



The New Acropolis Museum under the Acropolis of Athens "came to life" when at 2000, the Organization for the Construction of the New Acropolis Museum announced an invitation to a new tender, which came to fruition with the awarding of the design tender to Bernard Tschumi with Michael Photiadis and their associates and the completion of construction in 2007. The Museum has a total area of 25,000 square meters, with exhibition space of over 14,000 square meters, ten times more than that of the old museum on the Hill of the Acropolis. The new Museum offers all the amenities expected in an international museum of the 21<sup>st</sup> century. Permanent exhibitions: The Gallery of the Slopes of the Acropolis, The Archaic Gallery, The Parthenon Gallery, Propylaea-Athena Nike-Erechtheion, from 5<sup>th</sup> century BC to 5<sup>th</sup> century AC.

**Visit to the Acropolis of Athens**  
(July 5<sup>th</sup>, 19:00 – 20:30)



The greatest and finest sanctuary of ancient Athens, dedicated to the goddess Athena, dominates the centre of Athens from the rocky crag of the Acropolis. The most celebrated myths, religious festivals, earliest cults are all connected to this sacred precinct. These unique masterpieces of ancient architecture combine different orders and styles of Classical art in a most innovative manner and have influenced art and culture for many centuries. The Acropolis of the 5th century BC is the most accurate reflection of the splendour, power and wealth of Athens at its greatest peak, the Golden Age of Pericles. In the mid-fifth century BC, when the Acropolis became the seat of the Athenian League, Pericles initiated an ambitious building project which lasted the entire second half of the fifth century BC. The architects, Ictinos and Callicrates, began the erection of this unique monument at 447 BC and the building was substantially completed by 432 BC. The most important buildings visible on the Acropolis are the Parthenon, the Propylaea, the Erechtheion and the temple of Athena Nike.