

Ark of Inquiry



Ark of Inquiry is a European funded project that involves 13 partners from 12 countries. The project aims to raise awareness of pupils to Responsible Research and Innovation (RRI) by promoting an interest in science through inquiry learning. The overall aim of the Ark of Inquiry project is to create a "new science classroom", one which would provide more challenging, authentic and higher-order learning experiences and more opportunities for pupils to participate in scientific practices and tasks, using the discourse of science and working with scientific representations and tools. In the Ark of Inquiry project a platform is developed through which carefully selected inquiry-based activities are made widely available across Europe. This platform brings together inquiry-based activities, learners and supporters (teachers, university students, researchers, staff of museums and universities). The Ark of Inquiry project provides face-to-face training for teachers so that they will be able to support and motivate the pupils in their inquiry-based activities. Furthermore, supportive web-based materials are available for all of the supporters working with the Ark of Inquiry project.

<http://www.arkofinquiry.eu>

CREATIONS

Developing an engaging science classroom



How can young people's interest in science be increased? 16 partners from ten European countries want to break new ground. In CREATIONS, a project funded by the European Union, they develop creative approaches based on art for an engaging science classroom. The partners are planning a variety of events with theatre, photography, exhibitions in which young people can experience an active and playful role within science and research. CREATIONS will establish a pan-European network of scientists, teachers, artists and students. The project was launched in October 2015 and runs for three years. CREATIONS aims to improve the skills of young people in STEM (science, technology, engineering, mathematics) and to pool talent to scientific careers by:

- giving students and teachers opportunities to experiment with many different places, activities, personal identities, and people;
- simulating the work of the scientist and researcher in the classroom;
- promoting a better understanding of how science works;
- enhancing students' science related career aspirations;
- encouraging and empowering science teachers to affect change;
- implementing and promoting inquiry-based science teaching and learning;
- learning and (self)creating in emotionally rich learning environments;
- disseminating and exploiting the results.

<http://creations-project.eu>

OSOS (Open Schools for Open Societies)



OSOS is supporting a large number of European schools to implement Open Schooling approaches by a) setting out the open schooling values and principles for action around curriculum, pedagogy and assessment; b) offering guidelines and advice on issues such as staff development, redesigning school timetable, and developing partnerships with relevant stakeholder organisations (local industries, research organisations, parents associations and policy makers); and c) suggesting a range of possible implementation models from small-scale prototypes through to setting up an "open school within a school" or even designing a "new" school. These approaches will be evaluated in more than 1,000 school environments in 12 European countries (Greece, Germany, Italy, France, Israel, Ireland, the

Netherlands, Spain, Portugal, Romania, Finland, Bulgaria). The themes of the project activities that will take place in participating schools will focus on areas of science linked with the Grand Societal Challenges as shaped by the European Commission, will be related to Responsible Research and Innovation and will link with regional and local issues of interest. By proposing and implementing such formats in 12 countries, the project aims to facilitate the transformation of schools to innovative ecosystems, acting as shared sites of science learning for which leaders, teachers, students and the local community share responsibility, over which they share authority, and from which they all benefit through the increase of their communities' science capital and the development of responsible citizenship.

<http://www.openschools.eu>

ARK OF INQUIRY

Discover the Cosmos: From Telescopes to Accelerators Summer School 2017

Programme
July 9th – July 14th, 2017
Marathon, Attica, Greece

PROGRAMME

EVENTS

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
	9 July 2017	10 July 2017	11 July 2017	12 July 2017	13 July 2017	14 July 2017	
09:00 to 12:30	<p>Participant's arrival & Registration</p> <p>12:00 – 13:00</p>	<p>Welcome Dr. Angelos Lazoudis <i>Ellinogermaniki Agogi</i></p> <p>Educational portals and tools promoting IBSE Dr. Angelos Lazoudis <i>Ellinogermaniki Agogi</i></p> <p>Joining teachers' communities and exploring the educational tools repository Dr. Lamprini Kolovou <i>Intrasoft International</i></p> <p>Rosa Doran <i>NUCLIO</i></p> <p>Searching, Adapting and Creating inquiry-based educational scenarios Dr. Angelos Lazoudis <i>Ellinogermaniki Agogi</i></p> <p>Rosa Doran <i>NUCLIO</i></p>	<p>Workshop II</p> <p>Rovers on Mars Rosa Doran <i>NUCLIO</i></p> <p>Jose Saraiva <i>NUCLIO</i></p> <p>Meet the universe from the comfort of your classroom with robotic telescopes</p> <p>Live connection and observation with Faulkes telescope Rosa Doran <i>NUCLIO</i></p> <p>The Eratosthenes experiment Dr. Angelos Lazoudis <i>Ellinogermaniki Agogi</i></p>	<p>Workshop IV</p> <p>Cosmic ray detectors in schools: the Extreme Energy Events Project Dr. Despina Hatzifotiadou <i>INFN – Bologna & Centro Fermi – Rome</i></p> <p>Measuring Cosmic Muons in the Classroom Manolis Chaniotakis <i>Ellinogermaniki Agogi</i></p> <p>Dr. Despina Hatzifotiadou <i>INFN – Bologna & Centro Fermi – Rome</i></p>	<p>Workshop V</p> <p>Introduction to the Physics of CERN Prof. Christine Kourkoumelis <i>National and Kapadistrian University of Athens & IASA</i></p> <p>Nobel Prize Physics in the classroom: work with HYPATIA data analysis tool and assess your students' problem solving skills Prof. Christine Kourkoumelis <i>National and Kapadistrian University of Athens & IASA</i></p> <p>Stelios Vourakis <i>National and Kapadistrian University of Athens & IASA</i></p> <p>12:30-13:30 CERN Virtual Visit</p>	<p>Participants' Presentations</p>	
15:00 to 18:00	<p>15:00 – 16:00 Registration</p> <p>16:00 – 17:30 Ice-breaker</p> <p>18:00-20:00 Opening Session</p> <p>CERN Outreach opportunities for Teachers and Students Dr. Sascha Schmeling <i>CERN Education, Communications & Outreach group</i></p> <p>Students at the Center of Classroom Innovation Rosa Doran <i>NUCLIO</i></p> <p>Open Schools for Open Societies Dr. Sofoklis Sotiriou <i>Ellinogermaniki Agogi</i></p>	<p>Workshop I</p> <p>15:00-17:00 Introduction to the concept of Responsible Research and Innovation (RRI) Aiki Giannakopoulou <i>Ellinogermaniki Agogi</i></p> <p>Visit at Cape Sounio, Sanctuary of Poseidon</p>	<p>Workshop III</p> <p>Part I: Stellarium: a planetarium software that shows a 3D simulation of the night sky</p> <p>Part II: Babies and the Moon Rosa Doran <i>NUCLIO</i></p> <p>Jose Saraiva <i>NUCLIO</i></p> <p>Preparation of participants' educational scenarios (I)</p>	<p>Preparation of participants' educational scenarios (II)</p> <p>Workshop VI</p> <p>17:00-18:00 <i>(European teachers only)</i></p> <p>Exploring EU funding opportunities: guidelines for submitting an Erasmus+ KA1 & KA2 proposal Dr. Sofoklis Sotiriou <i>Ellinogermaniki Agogi</i></p>	<p>Visit to the Acropolis Museum and the Acropolis</p> <p>Dinner</p>	<p>Participants' departures</p>	
					<p>12:30 – 13:00 Short Introduction</p> <p>Augmented Reality in Education: the SCeTGo system Dr. Angelos Lazoudis <i>Ellinogermaniki Agogi</i></p>		
					<p>Farewell Dinner</p>		

Visit to Cape Sounio, Sanctuary of Poseidon
(July 10th, 18:00 – 24:00)



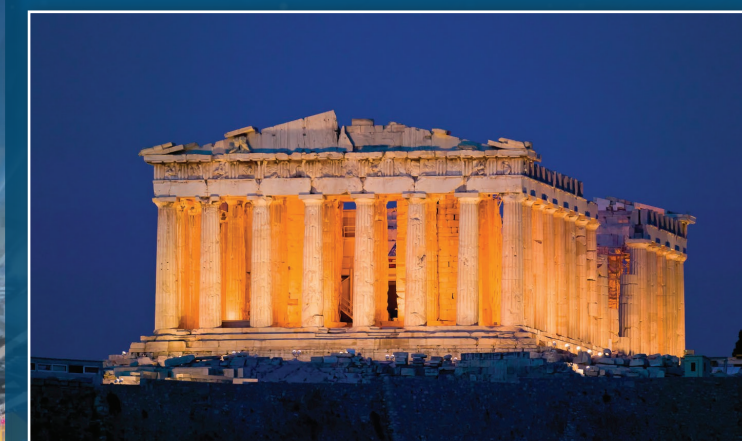
Cape Sounio is a promontory located 69 kilometres from Athens, at the southernmost tip of the Attica peninsula. According to legend, Cape Sounion is the spot where Aegeus, king of Athens, leapt to his death off the cliff, thus giving his name to the Aegean Sea. The sanctuary of Poseidon, one of the most 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 12th, 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 21st century. Permanent exhibitions: The Gallery of the Slopes of the Acropolis, The Archaic Gallery, The Parthenon Gallery, Propylaea-Athena Nike-Erechtheion, from 5th century BC to 5th century AC.

Visit to the Acropolis of Athens
(July 12th, 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.