

KA1 ERASMUS+ COURSES FOR HEADMASTERS, TEACHERS AND SCHOOL STAFF
BOOSTING SCIENCE EDUCATION AT SCHOOL

Developing Scientific Inquiry at school: A training course for teachers on the inquiry-based science education approach, hands-on experiments and cooperative learning

Presentation

It is increasingly more important in the modern education system to find engaging and effective ways to teach all sorts of scientific subjects to students, in order to promote their interest and improve their understanding of natural phenomena and current everyday life events. This training course will discuss the potentials of the inquiry-based science education (IBSE) approach and show how to apply it to real cases in the classrooms.

Objectives

The main objective is to provide the participants with the skills to develop an inquiry-based approach to scientific questions in the class, along with hands-on experiments and cooperative learning.

The participants are expected to be able to integrate/complement - or even replace totally - the traditional method of teaching science with the IBSE approach, which has been proved to be more effective and motivating, characterized by cooperative learning among students and non-competitive ways of organizing the class. IBSE creates a productive learning environment in which students put themselves to test and help each other.

A focus on hands-on experiments with cheap and easily-available materials (often recycling wastes) will make the method applicable by every teacher in every school, and will promote a respectful attitude towards environmental issues.

The course will also give the attendants valuable tools for improving students' scientific communication skills, allowing them to fix concepts and to communicate science clearly.

Target groups

-All science teachers and operators of the educational system with an interest in science and technology subjects;

-High schools of any kind (e.g. scientific/technical or humanity oriented) and level (i.e. from primary to secondary).

The Trainers

All trainers are members of The Science Zone (TSZ), a cultural association for scientific communication and outreach based in Rome. All trainers have a university

degree in scientific subjects (e.g. Mathematics, Physics, Biology, Biotechnology), many of them work as researchers, teachers, and they are all experienced scientific communicators, with a specific interest in promoting the IBSE approach.

Language of the course

English

Programme

Day 1 — 4 hours

1. Introduction to IBSE: a brief discussion of its origin, historical development and theoretical foundations
2. Comparison between the traditional method and the IBSE approach
3. IBSE: levels of inquiry
4. Creation of teamworks and practical examples

Day 2 — 4 hours

1. Phase 1 of IBSE: Engage / 2. Phase 2 of IBSE: Explore
3. Phase 3 of IBSE: Explain / 4. Phase 4 of IBSE: Elaborate
5. Phase 5 of IBSE: Evaluate
6. Focus on hands-on experiments, working with materials and developing cooperativeness

Day 3 — 4 hours

1. Example of converting a traditional science activity into an inquiry-based one
2. Practical session I: Using IBSE to replace/complement the traditional method
3. Practical session II: Building an inquiry-based scientific path in teamwork

Day 4 — 4 hours

Practical session on a real educational environment: application of IBSE on the field: hands-on exploration of a scientific topic and elaboration in the class of the contents and construction of an interactive exhibit for the other students of the school

Day 5 — 4 hours

Visit to an Italian school. Networking moments to establish new partnerships Meeting with teachers and students

Registration form please complete and sign the form below and return by email to: info@euphorianet.it

In case course participants come from the same organization, please complete a separate registration form for each participant.

You are registering to the course taking place in

Rome (Italy) on 2019 (see programme above)

1) Your data for invoicing purposes

First name:	Family name:
School name:	Country:
School Address:	Your School ID or VAT n° (if applicable):
Participant's position:	Telephone:
e-mail for sending invoice:	

2) Fees

Course fee: 350,00 € (VAT included) 50,00€ administrative support Total: 400€	It includes: - Preparation for the course - Tuition - Training materials - Administration costs - Organizational costs - Visit to a school, Institution or Association involved in EU projects
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3) Payment is to be made within 10 days after receiving this registration form.

Payment should be made by bank transfer to the following bank account:

Associazione Euphoria

IBAN: IT32 K076 0103 2000 0102 3026 378

BIC/SWIFT: BPPIITRRXXX

4) Cancellation and refund policy

As soon as we receive these forms back, the course is considered confirmed.

For cancellations made up to 20 days prior to the scheduled course date, a 50% refund will be made.

For cancellations made up to 10 days prior to the scheduled course date, a 25% refund will be made.

After that date (from 0 to 9 days prior to the course), the course fee is not refundable.

If you cannot attend the scheduled course we would welcome a substitute participant.

The substitution of the participants can be requested and performed at any time before the course, upon prior notice to Euphoria. To proceed to the correct replacement, the substitute participant must fill the online application form available on the Euphoria website and will be required to pay the registration fee after 5 days following the notice of the substitution request of the original participant and, in any case, no later than 9 days prior to the start of the course.

5) Non-attendance

No refund will be made for non-attendance on the course day.


We welcome a substitute participant if you cannot attend.

6) Communications related to the course

Euphoria: the communications of every kind relating to the courses by e-mail (info@euphorianet.it) directly to e-mail addresses provided by participants during the online pre-registration.

The participants are required to make communications relating to the courses by e-mail at info@euphorianet.it.

I understand and accept the terms and conditions of this registration.

Signature Course Provider Euphoria	Signature Participant
	
Date:	Date: