Course Catalog

2017 - 2018

“Teaching Science”

Erasmus+ KA1 Course

Anelixis Training Center

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Summary

Science provides the development of skills of students' asking questions and making investigations; making hypothesis, inference of results of experiments to students. Like learning to count or to read, learning how to do science is a lifelong progress. Children of all ages benefit from exposure to science situation.

This course teaches basic science concepts and answers to the questions such as: why is science important for everyone, what benefits children gain by learning science early in their lives, how to teach science through fun, yet educational hands-on experiments etc.

This course should take away the message that science is not difficult and complicated and that there is always a simple and creative way of teaching science.

But most importantly, the course will discover that the key to science education in primary schools is motivation for both teachers and primary school children.

The world is a rapidly changing environment and we need inspired scientists to continue the process of discovery across all sectors – from health and medicine to information technology. We should always remember that it all starts with the primary school education experience.
The key to science education in primary schools is motivation - for teachers and students. An exciting class will inspire both students and teachers to learn and to immerse themselves in the topic.
This is best achieved through the provision of outstanding teacher resources and a faculty that is committed to making science exciting in the classroom environment.
Engaging kids with science is easy. Teachers just need to remember to always relate science ideas back to their everyday lives.
Best science lessons are the ones where you know students can't wait to get home to tell their family about their new discovery about how things work, or why things happen in their everyday life experience.

Purpose

The main purpose of the course is to help teachers to improve their science school lessons and science project in primary and kindergarten school. Participants will be familiarized with the impact they can have on children by learning science in a fun and innovative, yet educational manner. They will learn how to boost children imagination and natural gift of questioning, by implementing scientific way of thinking and science methodology in their work. As our goal is also to encourage teachers to lead science clubs in their home countries, the teachers will receive a lesson plans for the few topics to work on in their own science clubs.

Objectives

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- Learn about myths in science and discover modern science.
- Learn why science education is important for literacy matters.
- Discover the advantages of teaching science in primary school.
- Explore how children can benefit from learning science at young age.

- Discover that science is actually close to children's nature.
- Learn how to teach children to develop scientific mind and attitude.
- Determine the skills of scientific enquiry processes.
- Learn the educational benefits of self-explanation.
- Discover creative low cost science experiments in class

Agenda

Day 1 - Introductory meeting, explanation of practical arrangements, presentation of timetable, information about course venue. - Icebreakers, Introduction to the Course - Introduction to science and science myths
Day 2 - Educational benefits of self-explanation and teaching of critical thinking. - Developing children's ability to learn how to learn. - Teaching children to develop a scientific mind and attitude. - Teaching the skills of scientific enquiry processes. - The importance of primary school science education
Day 3 - Importance of activity and discovery methods as a key principle in primary school education. - How primary school children should be given opportunities to test and develop their ideas about the science world through practical problem-solving activities and open-ended investigations. - Importance of science combined with playing
Day 4 - Given Examples and hands-on activities with written lesson plans - The structure of science lessons for children, imitating the real science workflow. - How to organize low cost science experiments. - Outdoors experiments

Day 5 - On-line database of articles about science for kids – kids with up-to-date knowledge. - Software support and computer simulations on science experiments. - Discussing possibilities for future cooperation among participants
Day 6 - Study Visits
Day 7 - Erasmus+ programme : objectives, priorities, actions, forms, budget, tips for applicants - Planning follow up activities, dissemination and exploitation of learning outcomes - Course Evaluation - Certifications

Methods

Lectures, exercises, discussions, teamwork, role-playing, study visits

Target groups

Teachers working in kindergartens, primary schools.