

SCIENCE FOR PRIMARY SCHOOL CHILDREN: WHEN COMPLICATED BECOMES FUN AND EASILY UNDERSTANDABLE

SUMMARY

The course allows participants to familiarise themselves with up-to-date science and learn how to transfer science knowledge to primary school children. It offers 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.

Important take away message of the course would be that science should not be complicated and difficult subject for children. Science can be the subject that boosts children curiosity, creativity and critical thinking. But most importantly, science is all around you and inside you and children should discover that with your guidance and help.

OBJECTIVES

The main goal of the course is to help teachers to improve their science school lessons, science club and/or a science project in primary school. Throughout the course, participants will get familiar 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.

PROGRAMME DAY-BY-DAY

DAY 1

Introductory meeting, explanation of practical arrangements, presentation of timetable, information about course venue.

DAY 2

- Discovering a new world around you - introduction to science.
- Science myths.
- The importance of science education for all - why science literacy matters.
- The importance of primary school science education.
- Developing children's ability to learn how to learn.

DAY 3

- Important scientific equation: Science = play = children like to play = children learn.
- How to include icebreakers into the science lessons – never stop wondering.
- The structure of science lessons for children, mimicking the real science workflow.
- Welcome to our world – how do our science clubs look like.

DAY 4

- Visiting the House of experiments in Ljubljana to try out some of the experiments designed for children.
- Half-day excursion to one of Slovenian highlights.

DAY 5

- Examples and hands-on activities of our science club lessons with written lesson plans (e.g. potato battery – the electricity lesson; the magical invisible gases; discovering the proprioception sense with Wobble detector; our senses – the sensors of our bodies; the secret behind levitation; the spy device and rays of light; build and test a sound gun).

- Teaching children to develop a scientific mind and attitude.
- Teaching the skills of scientific enquiry processes.
- Educational benefits of self-explanation and teaching of critical thinking.

DAY 6

- On-line database of articles about science for kids – kids with up-to-date knowledge.
- Emphasizing effort, not innate talent - intelligence is influenced by effort.
- Creative low cost in class science experiments.
- Hands-on work on some of the experiments designed to be conducted in the class room.
- Outdoors experiments.
- Challenges in teaching science through hands-on experiments.
- Key learning points and conclusion.

DAY 7

- Planning follow up activities, dissemination and implementation of learning outcomes.
- Discussing possibilities for future cooperation among participants.