

## **Inquiry Based Science Education (IBSE) during classes in Young Explorer's Club**

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We created four KMO (Young Explorer's Clubs) in our schools. There are places where students discover the world by experience. We work with students aged 7-18 which studies in different types of schools (primary school, gimnazjum and secondary school). The mission of the Young Explorer Club Program is developing various clubbers' skills by personal and shared experience of learning. Therefore in our classes we use innovative teaching methods, e.g. Inquiry Based Science Education (IBSE).

- What is IBSE?

The inquiry-based science adopts teaching and learning approached to investigating the problem, looking for possible solutions, making observations, asking questions, testing ideas, creative thinking and using intuition. In this sense learning based on inquiry involves students conducting research where they have the opportunity to explore possible solutions, develop explanations for the phenomena studied, develop concepts and processes, and evaluate or assess their understanding in the bright of available evidence.

- How does IBSE develop students?

Students personally or in cooperation with the group make experiments, observe and extract conclusions. Therefore the method helps students to develop the skills and habits of creative problem solving and analytical thinking. IBSE is focused on stimulating the intellectual activity of students who participate in the research process personally. In this way, the teacher creates the conditions for the release of creativity, teaches how to analyse the situation and get to know the environment. It strengthens motivation of students and it activates emotions (curiosity, joy, satisfaction and astonishment) which stimulates the learning processes.

On our poster we want present photos from classes conducted with this method. We show in practice how club members (students together with the teacher) holding research questions and they are looking for answers by experiments. We know that every experiment carried out ( even the one that contradicts the expected results) is an opportunity to learn. When we find a solution that gives us satisfaction and a sense of success. It also helps understand and remember even complicated processes. So this is the quintessence of inquiry based science education.