

Young Explorer's Club Programme Card

Coordinator of the Programme

**CENTRUM
NAUKI
KOPERNIK**

Strategic Partner of the Programme

POLSKO-AMERYKAŃSKA
FUNDACJA WOLNOŚCI



POLISH-AMERICAN
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Young Explorer's Club programme

The Young Explorer's Club, or the YEC (Polish: *Klub Młodego Odkrywcy KMO*, Russian: *Клуб Молодого Открывателя КМО*), is an international educational programme coordinated by the Copernicus Science Centre with support from the Polish-American Freedom Foundation.

The first club, bringing together students from Kłodzko, was founded in the late 1990s by Janusz Laska, a junior high school geography teacher. Subsequent clubs were led by teachers from the Kłodzko Educational Society.

In 2002, under the "Equal Opportunities" programme, YEC received support from the Polish-American Freedom Foundation and the Polish Children and Youth Foundation. Since 2009, the YEC community has been supporting the Copernicus Science Centre.

The "YEC Programme Charter" defines the rules of cooperation in the club and in the programme.

The "YEC Programme Network Charter" defines the rules of cooperation in the community and in the programme.

Vision and mission of the YEC programme

Vision

Create a community where people become causal, learn independently and from each other.

Mission

Foster curiosity about science and promote the development and improvement of the social competence of children, young people and club mentors through self-guided exploration of the world.

Motto

Everyone Can Explore



III

Values and goals of the YEC programme

The YEC community is guided by common goals and values. Cooperation follows a model developed by the entire programme community.

YEC Objectives

- Provide equal opportunities for the development and self-realization of children and young people regardless of place of residence and economic and social status.
- Foster curiosity, increase interest in science and culture in all members and members of the YEC community.
- Develop key competencies for life in the modern world, including effective communication, teamwork, critical thinking, coping with challenges and problem solving.
- Use and develop science-inspired teaching and learning methods, i.e. learning about the world through self-guided observation and experiments, and making inferences based on findings.
- Share knowledge and exchange experiences in the YEC community.

YEC values

Diversity

YEC brings together people from different countries and nationalities, with different social and economic statuses. This diversity and multiculturalism is reflected in the activity of the YEC community. Each club is different, exists in a different environment, has different needs, and the interests of its club members and mentors are different, too. This is the potential for sharing knowledge and experience, which contributes to the evolution of the entire community.

YEC's activity is interdisciplinary. In their activity, club members cross the boundaries between formal school subjects. They can pursue their passions without being limited by one field. As a result, they can better learn and understand the complexity of the world.

Subjectivity

YEC provides autonomy to all programme participants. Together with their club mentor, club members choose the type of activity they want to engage in. Regional, national and foreign institutional partners create local and national networks together with the Copernicus Science Centre. The rules of cooperation are defined by the "YEC Programme Network Charter".

Dialogue and interaction

The exchange of knowledge and experience, including at the annual YEC Forum; national and regional forums organized by institutional partners; meetings and webinars; and in jointly run ventures such as research projects and science picnics, lies at the heart of the growth of the YEC community.



Science

The YEC programme combines education and science. It promotes learning methods inspired by the process of scientific research, including making observations and investigating phenomena occurring in the world surrounding the learner. Club members conduct research projects in cooperation with scientists. By participating in and organizing picnics and science festivals, they work towards science communication. Programme activities carried out so help to better know and understand how science works, how knowledge is created, and what principles build public trust in science.

IV

Pedagogical objectives of YEC

YEC works according to the principles of constructivism. This pedagogical direction assumes that people construct their own understanding and knowledge of the world by experiencing things and reflecting on that experience. Constructivism grows out of cognitive psychology and social psychology of human development. It is both a theory of learning and a theory of the process of cognition.

The constructivist approach moves away from replicating ready-made patterns and learning instructions to exploring, modifying, interpreting and testing. Learning is the creation of the learner's own knowledge structures. The human mind is not a camera recording reality. It creates knowledge itself as images, concepts, judgments, and emotions. What is important is not so much what is learned, but how it is learned. The way of cognition is of essence.

In pedagogy, constructivism has become synonymous with well-known teaching strategies and methods (*Inquiry-Based Learning*, *Problem-Based Learning*, *Inquiry-Based Science Education*) that assume an independent, autonomous and active role of the student or pupil in the learning process. Teachers are partners who engage in dialogue with learners. The role of teachers is to awaken natural curiosity, pose supportive questions, and inspire the use of their pre-knowledge.

Teaching strategies and methods

Inquiry-Based Learning (IBL)

Inquiry-Based Learning (scientific) is a learning strategy based on real cognition and understanding of a problem. It requires the creation of conditions and organization of the environment (space) that support cognitive work, the process of theoretical thinking and active construction of knowledge through action. Learning through inquiry develops theoretical and critical thinking skills.

Problem-Based Learning (PBL)

Problem-Based Learning is a strategy based on the process of self-inquiry. Students are confronted with authentic problem situations embedded in real life. Such a learning environment is meant to stimulate cognitive curiosity and motivate work. The learning process is similar to the process of scientific inquiry. PBL develops research skills, creative and critical thinking, and helps take responsibility for one's own learning.



Inquiry Based Science Education (IBSE)

IBSE is learning science through discovery, organizing the teaching and learning process.

Students use scientific theory to understand and interpret the phenomena they encounter on a daily basis.

V

How the clubs work

A club is a micro-community of YEC that includes child and youth members and an adult (club mentor). In classes, children and young people conduct experiments that require only simple, inexpensive and readily available materials. YEC club mentors (support, facilitate) experimentation and accompany the learning process.

Running a club

- You can establish and register a club at any time. The registration form is available at the programme website www.kmo.org.pl.
- YEC is non-commercial and may not generate profits for the institutions where the clubs operate.
- Activity participation must be free of charge for club members.
- The club can only operate in a place that ensures the safety of activity participants, e.g., in a school, library, day care center or community center.
- The space in which activity takes place (hall, room) should be decorated together with club members.
- Topics of activity should be determined jointly with club members.
- Club meetings should be held regularly, at least once a month, preferably throughout the school year.
- Clubs are required to use a consistent visual YEC identity, made available in the "Księga Znaku" ("Logo Book") at www.kmo.org.pl.
- We encourage you to post information about the club's activity on the website of the facility where the club operates.
- We encourage you to share information about the club's activity with other programme members, such as on the club's board at www.kmo.org.pl.
- Club mentors who decide to close their club are required to send a notice to kmo@kopernik.org.pl.

Club mentors

- Any adult who is competent to work educationally with children and young people may become a club mentor. We suggest that club mentors be educators associated with the institution at which the club is established.
- Club mentors are fully responsible for the safety of club members, compliance with health and safety rules in the club and during club activities.



- We suggest that the club have two people as club mentors. Such an arrangement ensures better sustainability of the club's operation and quality.

Club members

- All club activities are completely voluntary and free of charge.
- Children and young people may become club members.
- We suggest that at least three people meet in the club. In smaller groups, the full potential of collaborative learning cannot be realized.
- Parents give their consent for children and young people under the age of 18 to participate in YEC's activity.

Cooperation in the YEC community

- The YEC programme has its own communication channels: the website www.kmo.org.pl managed by the Copernicus Science Centre and co-created by all partners; the official fanpage "Klub Młodego Odkrywcy", and the closed information and discussion Facebook group "Opiekunowie KMO". In addition, there are regional closed information and discussion Facebook groups for club mentors, including those from Silesia, Mazovia, and Chetm.
- Registered club mentors who have given their consent receive an informative newsletter once a month about past and planned activities at YEC and the Copernicus Science Centre.
- Clubs can participate in activities (meetings, competitions, science picnics, science festivals, conferences, and projects) initiated by regional partners and the Copernicus Science Centre. A list of partners along with contacts to their representatives can be found on the programme's website in the "Partnerzy" tab <https://www.kmo.org.pl/pl/partnerzy>
- Clubs cooperate with each other and are invited to cooperate by regional and national partners, including in the organization of picnics and science festivals, meetings, conferences, etc.
- Clubs can share knowledge of ongoing activities with the YEC community. The following channels are used for communication:
 - » the "Inspiracje" tab and the "Mapa KMO" tab on the YEC website, where each club can describe its activity in its profile;
 - » presentations at local forums and science picnics;
 - » webinars;
 - » "Giełda Inicjatyw" ("Initiative Exchange") during the YEC Forum;
 - » local media and other forms of communication and promotion used by the facility where the club operates.



VI

Benefits for YEC programme participants

- Educational resources made available on the YEC website under CC-BY-SA license:
 - » experimental scenarios (access in the "Scenariusze" tab)
 - » descriptions of projects carried out by YEC club mentors (access in the "Inspiracje" tab);
 - » recordings of lectures and webinars (access in the "Oferta" tab)
- Onsite workshops, online training, webinars, and educational projects:
 - » "How to run a club" workshops for novice club mentors;
 - » on-site training courses and webinars for YEC club mentors regularly organized by the Copernicus Science Centre and institutional partners. Information on training courses is posted in the newsletter, on the YEC website, and on the YEC fanpage on Facebook;
 - » educational programmes and projects implemented by the Copernicus Science Centre and by institutional partners.
- Competitions, national and regional conferences, scientific picnics and other activity:
 - » Polish Radio and Copernicus Science Centre Science Picnic (YEC clubs act as exhibitors);
 - » international competition YEC Champions;
 - » YEC Forum International Conference;
 - » Regional and national conferences;
 - » regional science picnics;
 - » international exchanges.

Warsaw, July 2022

