Competition title

"The Spark of Discovery: Inspiring Future Scientists through Marie Skłodowska-Curie"

Purpose and philosophy

A national STEM competition inspired by the life and achievements of **Marie Skłodowska-Curie**, the pioneering Polish double-Nobel Laureate whose groundbreaking discoveries transformed science and medicine. The initiative celebrates curiosity, perseverance, and innovation, while encouraging **young learners—particularly young women—to actively engage in science, technology, engineering, and mathematics (STEM)**.

Through creative and scientific expression, students will explore themes of discovery, experimentation, and the role of science in improving society. The project aims to cultivate a new generation of scientists inspired by Curie's legacy of excellence, resilience, and intellectual courage.

By celebrating the extraordinary legacy of Marie Skłodowska-Curie, this project reinforces the message that science is inclusive, transformative, and open to all—and that the innovators of tomorrow are already present in today's classrooms.

Competition Overview and Aims

The competition is structured around both **scientific inquiry and creative communication**, allowing students to demonstrate understanding through experimentation, design, and storytelling.

The competition is open to students in **lower secondary education, upper secondary education, and secondary technical schools**, ensuring broad engagement across diverse academic pathways and encouraging participation from students with both general and applied scientific interests.

Participation is voluntary and guided by teachers.

Aims

- Cultivation of scientific curiosity, innovation, and research skills
- Empowering girls to pursue studies and careers in STEM fields and promoting gender equality in science and innovation
- Strengthening awareness of European scientific heritage
- Promoting research skills, critical thinking, collaboration, and creativity

Participation Categories

Competition submissions will be accepted in four (4) categories, ensuring inclusivity across age groups and educational streams:

❶ Individual Scientific Project

Participants are invited to undertake an individual scientific project inspired by Maria Skłodowska-Curie's work, scientific methodology, or the role of science in everyday life. Projects should be age-appropriate and may include simple experiments, systematic

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observations, data collection and analysis, model construction, or research-based investigations.

Examples include:
- Experiments exploring scientific concepts such as light, heat, materials, or natural phenomena.
- Observation-based studies of the environment, plants, weather, or everyday scientific processes.
- Research projects investigating Maria Skłodowska-Curie's discoveries, the history of radioactivity, women in science, or the societal impact of scientific breakthroughs.
- Development of simple scientific models or demonstrations explaining a scientific principle.

Projects should:
- Clearly state the research question, objective, or scientific topic being investigated.
- Describe the methodology or process followed.
- Present observations, findings, or conclusions in a structured manner.
- Demonstrate understanding of the scientific concept explored.
- Be conducted safely and ethically, without the use of hazardous materials or procedures.

Submission format:
- A written report of **500–1,000 words** (adapted according to age group) with supplementary material (i.e. photos), or
- A scientific poster (A2 or equivalent digital format), accompanied by a brief explanatory summary of **300–500 words**.

Assessment will consider the relevance to the theme, scientific understanding, application of inquiry-based learning, creativity, clarity of presentation, and the quality of conclusions drawn from the project.

❷ Group Scientific Project

Participants are invited to work collaboratively in teams to design and carry out a scientific investigation, develop a STEM-based solution, or create a prototype addressing a real-world challenge. Projects should encourage teamwork, problem-solving, innovation, and the practical application of scientific knowledge.
Projects may focus on themes such as energy, health, environmental sustainability, climate action, technology, or community well-being, and may include:
- STEM investigations involving research, experimentation, data collection, and analysis.
- Design and construction of prototypes, models, or devices aimed at addressing a specific challenge.
- Engineering or technology-based solutions that improve everyday life or promote sustainability.
- Interdisciplinary projects combining science, technology, engineering, arts, and mathematics (STEAM).
- Citizen science or community-based projects that identify and propose solutions to local issues.

Examples include:
- Energy-saving or renewable energy models.
- Recycling, waste reduction, or environmental monitoring initiatives.
- Simple assistive technologies or health-related innovations.
- Water conservation, biodiversity, or climate-awareness projects.

- Digital tools, apps, or technological prototypes designed to solve practical problems.

Projects should:
- Identify a clear problem, challenge, or research question.
- Explain the scientific and/or technological concepts underpinning the project.
- Describe the methodology, design process, or development stages.
- Demonstrate collaboration and the contribution of team members.
- Present evidence, testing results, observations, or data supporting the proposed solution.
- Conclude with an evaluation of the project's effectiveness and potential real-world impact.

Submission format:
- A written report of **1,000–2,000 words** (adapted according to age group) with supplementary material (i.e. photos), and/or
- A scientific poster (A2 or equivalent digital format), accompanied by a summary of **500–800** words.
- Where applicable, teams may also submit photographs, videos, design plans, prototypes, or digital demonstrations of their solution.

Assessment will consider the relevance to the theme, scientific and technical understanding, innovation, quality of teamwork, problem-solving approach, feasibility of the proposed solution, effective use of STEM methodologies, and clarity of presentation.

❸ Individual Creative Presentation

Participants may choose to submit an essay, digital storytelling project, or multimedia presentation exploring Marie Skłodowska-Curie's life, scientific achievements, legacy, or the broader impact of scientific discovery on society.

Submissions should:
- Demonstrate originality, creativity, and critical thinking.
- Be based on accurate historical and scientific information.
- Clearly communicate the relevance of Curie's work and its lasting influence on science, education, medicine, or society.
- Respect copyright regulations, with all external sources and media appropriately acknowledged.

Submission format:
- **Essay**: 800–1,500 words, accompanied by a bibliography and references to sources used.
- **Digital Storytelling**: 3–5 minutes in length, combining narrative, images, video, animation, music, or other digital elements to tell a coherent and engaging story.
- **Multimedia Presentation**: 5–10 slides (or equivalent format) incorporating text, visuals, audio, video, or interactive elements.

Assessment will consider the quality of research, content accuracy, creativity, clarity of communication, effective use of digital media (where applicable), and overall presentation.

❹ Group Innovation Challenge

Participants are invited to work collaboratively in teams to identify a real-world problem and develop an innovative, practical solution inspired by scientific principles. The focus of this category is on creativity, design thinking, innovation, feasibility, and societal impact, rather than on conducting scientific experiments or research.

Teams are encouraged to address challenges related to health, education, sustainability, energy, accessibility, environmental protection, community well-being, or quality of life, by designing a product, service, campaign, system, or technological solution.
Projects may include:

- Innovative products or devices that address everyday problems.
- Sustainable solutions promoting environmental responsibility or resource efficiency.
- Assistive technologies that improve accessibility and inclusion.
- Educational tools, applications, or awareness campaigns based on scientific concepts.
- Smart systems or technological innovations designed to improve community life.
- Social innovation projects that apply scientific knowledge to tackle local or global challenges.

Examples include:

- A low-cost solution for reducing plastic waste in schools.
- A mobile application promoting healthy lifestyles among young people.
- An innovative water-saving system for homes or schools.
- An awareness campaign using scientific evidence to address environmental issues.
- A conceptual design for a sustainable community space.
- A prototype or model of a product that improves accessibility for people with disabilities.

Projects should:

- Clearly define the problem or challenge being addressed.
- Explain how scientific principles or evidence informed the proposed solution.
- Demonstrate innovation, creativity, and practical thinking.
- Describe the design process, including idea development and decision-making.
- Assess the feasibility, usability, and potential impact of the solution.
- Include visual representations such as sketches, models, prototypes, storyboards, or digital designs where appropriate.

Submission format:

- A project proposal of 1,000–1,500 words (adapted according to age group), with supplementary material along with:
  - A presentation of 8–12 slides outlining the challenge, proposed solution, design process, and expected impact.

Teams may additionally submit prototypes, mock-ups, design sketches, videos, digital simulations, or other supporting materials.

Assessment will consider:

- Identification and understanding of the problem.
- Creativity and originality of the proposed solution.
- Application of scientific principles.
- Practicality and feasibility.
- Potential social, environmental, or educational impact.
- Quality of teamwork and communication.
- Effectiveness of the presentation and supporting materials.

Participation Guidelines and Requirements

● Group entries may consist of female-only or mixed-gender teams.
● Schools are encouraged to support inclusive collaboration and ensure that female students have an active and substantial role in the research, development, and presentation of the project, in recognition of Marie Skłodowska-Curie's contribution to science and to encourage girls' engagement in STEM fields.
● Participation remains voluntary and student-led, under teacher guidance. Teachers are encouraged to align project work into the curriculum, wherever possible.
● By agreement with the teacher-advisor(s) and the school administration, students may work on the project both during school hours and in their free time. Individual students or student groups may use school equipment, laboratories, and facilities to develop, test, and refine their projects at appropriate times determined by the responsible teacher(s). Such activities should complement classroom learning and be aligned with the school's educational programme and curriculum.
● Projects are eligible to be credited under the Creativity-Action-Social Contribution program (el. *πρόγραμμα ΔΔΚ*) for participating students.

Special Focus

● Strong encouragement of female student participation, particularly in scientific and technical streams
● Projects may highlight women scientists and role models, with particular emphasis on Marie Skłodowska-Curie

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Preparation and teacher support

Prior to the official opening of submissions, an online seminar (webinar) will be organized for educators who wish to participate. The webinar will take place on December 3 or December 10, 2026 (at the teacher's choice), from 12:30 to 13:30, and will present the life and work of Marie Skłodowska-Curie. The webinar will be conducted in English by researchers from the 'Marie Skłodowska-Curie' Museum in Warsaw.

Application Process

● All applications are to be submitted through a digital form in English.

● A designated, coordinating teacher is responsible for submitting the application and supporting documents.

Student Awards

To ensure fair recognition and inclusivity, student awards will be granted for each category:

- Individual Scientific Project
- Group Scientific Project
- Individual Creative Presentation
- Group Innovation Challenge

in each of the three educational streams:

● Lower Secondary Education (gymnasiums)

● Upper Secondary Education (lyceums)

● Technical and Vocational Education and Training (TVET schools)

Allocation of Awards

Lower Secondary Education

- Marie Skłodowska-Curie Award for Individual Scientific Project in Lower Secondary Education
- Marie Skłodowska-Curie Award for Group Scientific Project in Lower Secondary Education
- Marie Skłodowska-Curie Award for Individual Creative Presentation in Lower Secondary Education
- Marie Skłodowska-Curie Award for Group Innovation Challenge in Lower Secondary Education

Upper Secondary Education

- Marie Skłodowska-Curie Award for Individual Scientific Project in Upper Secondary Education
- Marie Skłodowska-Curie Award for Group Scientific Project in Upper Secondary Education
- Marie Skłodowska-Curie Award for Individual Creative Presentation in Upper Secondary Education
- Marie Skłodowska-Curie Award for Group Innovation Challenge in Upper Secondary Education

Technical and Vocational Education

- Marie Skłodowska-Curie Award for Individual Scientific Project in Technical and Vocational Education
- Marie Skłodowska-Curie Award for Group Scientific Project in Technical and Vocational Education
- Marie Skłodowska-Curie Award for Individual Creative Presentation in Technical and Vocational Education
- Marie Skłodowska-Curie Award for Group Innovation Challenge in Technical and Vocational Education

● Schools are limited to one submission *per category*.

● Submissions *per school* must not exceed four submissions in separate categories.

● Groups shall *not exceed* a total of four students.

Indicative timeline

Activity	Date
Press Conference	27 November 2026
Application deadline	30 November 2026 at 16:00
On-line seminar for interested teachers conducted by the Museum of Maria Skłodowska-Curie in Warsaw	03 December 2027, 12:30-13:30 or 10 December 2027, 12:30-13:30
Submission deadline	16 March 2027 at 16:00
Competition Ceremony (Embassy of Poland/Ambassador's Residence TBD)	End of April 2027