

PROVISION

o holding the XIV International Competition of scientific and technical works of high school students "Scientists of the Future" within the framework of

All-Russian Science Festival in 2023

1. General regulations

1. This provision contains a description of the organizational and methodological support of the XIV International Competition scientific and Technical Works of High School Students "Scientists of the Future" (hereinafter referred to as the Competition). The provision indicates the place, date and procedure for submission of entries, the criteria and procedure for evaluating the results of work, as well as the procedure and timing of the announcement of the results of the Competition.
2. The competition within the framework of the XVIII All-Russian Festival of Science and within the framework of the Decade of Science and Technology in the Russian Federation in 2023 is held under the auspices of the Ministry of Science and Higher Education of the Russian Federation with the support of the Ministry of Education of the Russian Federation, Lomonosov Moscow State University, the Russian Academy Sciences, the Government of Moscow and the School Laboratory of Scientific Creativity "LANAT" (hereinafter - Organizers).
3. The purpose of the Competition is to support gifted children, development of students' interest in the study of science, creation of conditions for the intellectual development of students. The competition promotes the dissemination and popularization of scientific knowledge, the improvement of the pedagogical qualifications of teachers in Russia and foreign countries.
4. Within the framework of the Competition, projects are selected according to the following nominations:
 - physics and astronomy;
 - mathematics;
 - chemistry;
 - biology and sciences life;
 - programming;
 - geology and sciences Earth;
 - technology and engineering Sciences;
 - digital technologies;
 - medicine
5. The Organizers of the Competition reserve the right to add other nominations.

2. Requirements for participants Competition

1. High school students (grades 9-11) who are citizens of the Russian Federation and other countries can take part in the Competition. Participation in the Competition is free.
2. Projects submitted to the Competition are projects completed under the guidance of professional scientists, teachers and / or parents (hereinafter referred to as Scientific Supervisors) or without it.
3. Individual or team (performed by two schoolchildren) are allowed to participate in the Competition. projects. Projects made by more than two authors are not allowed to participate.
4. The projects submitted for the Competition must be completed by the students themselves. The role of the Research Supervisor is to set the research problem and provide scientific advice.
5. The language of the Competition is Russian, for foreign participants - Russian or English. All participants of the Competition must be able to make a summary of their project in English for foreign members jury.

3. Terms of participation in Competition

1. Registration and submission of applications for the Competition is carried out on the Internet on the official website of the Competition <https://ub.festivalnauki.ru/> (hereinafter referred to as the Website). Projects submitted in any other way are not eligible for the Competition. allowed.
2. Applications for participation in the Competition are accepted both from Scientific Supervisors (in this case, the Supervisor himself registers his participants), and from the participants themselves (who in this case indicate their leader).
3. Projects must represent research completed during the previous academic year. of the year. In the case of an ongoing project, it is necessary to clearly state what has been done previously and what the development of the project is.
4. Projects that are purely demonstration, informational messages or the results of an abstract study of literature are not eligible for the Competition. allowed.
5. Job above project must be carried out With necessary requirements for occupational safety and not pose a danger to the life and health of underage researchers and their environment, not cause damage to the environment.
6. Scientific fraud (plagiarism, fake, usage or presentation of other people's research, etc.) or misbehavior towards other participants is unacceptable at any stage of the research process or Competition.
7. By registering an application, the participants of the Competition and their supervisors agree to provide the Organizers of the Competition with permission to process their personal data, publish abstracts, video materials,

photographs and information about the authors and their supervisor in print and electronic form.

4. Order of consideration applications

4.1. Extramural stage:

1. Selection of applications for participation in the full-time stage of the Competition in terms of compliance of the application with the conditions of the Competition, compliance of the application with the proposed form, completeness of information, compliance with the deadlines for submitting the application.
2. Projects are admitted on the basis of submitted applications, abstracts of scientific papers (Appendices No. 1 and No. 2) and videos up to 1 minute long, in which the participant briefly tells the essence of his work and, if possible, demonstrates the current installation (if it is the subject of the Competition).

Recommendations for the content of abstracts:

- a) the result of the work on the project must be obtained personally by the participant of the Competition. The participant should be able to explain what his contribution to the work was. This item is especially recommended for those participants who have worked in a professional laboratory, research center.
 - b) staging tasks And short introduction V task fulfillment project, state of affairs in this area (literature review inclusive).
 - c) the purpose of the study.
 - d) the research method and its difference from other possible ones. Comparison with known methods, knowledge of their advantages and disadvantages.
 - e) when using measuring equipment in the work of the project, the ability to explain the principle of operation of devices, their accuracy is taken into account.
 - f) understanding on what fundamental laws the research method used is based, what are the limitations of the models under consideration.
 - g) the results of the study and conclusions should be presented in the form of a list.
3. Based on the results of the expert evaluation, a list of applications recommended for participation in the on-site stage is determined. The decision is made by a specially created scientific jury, which includes Russian and foreign scientists in the relevant fields of science (hereinafter referred to as the Jury). Members Competition And Scientific leaders selected works notified to the email address specified in the application mail.

4.2. full-time stage of the competition:

1. TO participation V full-time stage Competition allowed only those projects, presentations of which will be presented in the form of a stand (Appendix No. 4), which the participant makes independently.
2. The in-person stage of the Competition will take place in the format of poster presentation of projects by participants at the site of the XVI All-Russian Science Festival in Moscow. It is possible to hold an in-person stage at other sites that will be announced on the Site. Sites may differ in the categories in which the work is submitted.
3. In the event that it is difficult or impossible to conduct the Contest in the format of the personal presence of the Participants and the jury, the in-person stage of the Contest is held remotely.
4. In the event that the face-to-face stage is held at several venues, the Participant or his Supervisor independently chooses any of the announced sites, on which They present work. Members Competition and them Scientific leaders have equal rights And duties regardless from Togo, Where did they present their work? The winners of the Contest are determined regardless of the site participation.
5. The Contest participant can take part in the in-person stage with an accompanying person who is an adult authorized to accompany the participant from / to the place of residence to the Contest site and is responsible for his life and health throughout the entire duration of the in-person stage of the Contest. In the event that the escort is not the legal representative of the participant (parent, guardian, etc.), he must have a notarized permission to accompany the participant. If a participant arrives at the Competition without an escort, he must have a notarized permission from legal representatives for independent participation and hotel accommodation. The escort is registered on the Site separately after the announcement of the results of the absentee stage.
6. Each participant of the Competition is provided with a separate stand for placing and presenting his project to the jury and other participants. Requirements for the preparation of the stand are set out in Appendix No. 4.
7. At the in-person stage, there is also an independent jury represented by young scientists, sponsors and interested parties. The decision on the winners of the Contest is made by the Jury within the framework of the in-person stage.

Criteria for evaluating projects at the internal stage of the Competition:

- 1 The participant's ability to explain their own contribution to study.
- 2 The ability of the participant to explain the goals and objectives of the study.
- 3 The participant's understanding of the methods and approaches used, the ability to compare the methods and approaches understood with existing.

- 4 Understanding by the participant of the principles of work and characteristics of the equipment used in the process of work equipment.
 - 5 Ability to draw conclusions work. The ability to compare the results with the stated goals, to draw a conclusion about the compliance or reasons for the discrepancy between the objectives of the study and the results.
 - 6 The participant's understanding of the future prospects of his research within six months.
 - 7 Presentation Skills: The ability to present material clearly and concisely, to support a discussion. The opportunity to state the key points of the work in English is welcomed language.
8. The announcement of the finalists of the Competition and their solemn rewarding is held at site All-Russian festival Sciences on next day after the intramural stage.
 9. Accompanying and Scientific supervisors cannot be at the stands during the work of the jury.
 10. In order to present the project at the in-person stage, the participant of the Competition and his Supervisor (or accompanying person) are provided with free accommodation and two meals a day at the Competition site.
 11. The Organizers are not responsible for the life and health of the participants of the Competition during the days of the event.

4.3. Superfinal of the Competition

1. The winners of the full-time round (those who took 1-4 places in each category according to the scientific Jury) finalize project And participate V superfinal competition, which takes place face-to-face or remotely. The date of the superfinal is announced later.
2. The winners of the superfinal are part of the Russian team for the International Science and Engineering Fair in the USA (provided that the Contest passes affiliation and the participant completes all the necessary documents).
3. The winners of the Competition have a priority right to enter the Russian national team for the Beijing Youth Science Creation Competition and the International Conference of Young Scientists, as well as other intellectual competitions, Russian teams for which are formed by the Competition operator.

5. Features of the participation of foreign Participants (except for the countries of the Commonwealth and the CIS)

1. Foreign Participants take part in delegations from their country (hereinafter referred to as the Delegation), consisting of no more than 5 schoolchildren and 2 leaders (or accompanying persons).
2. Participation of the Delegation is preliminary coordinated with the Organizing

Committee of the Competition (Operator of the Competition) by e-mail uchenye@festivalnauki.en. The Agreement is considered concluded after the Delegation receives an official invitation.

3. The delegation of foreign Participants independently selects Participants for the on-site stage of the Contest, using its national resources for such selection.

4. For foreign Participants, an organizing fee may be set.

6. Basic dates

The competition takes place in several stages Yes, there:

1. September 15, 2023 - closing date applications;
2. September 25, 2023 - announcement of the results of the absentee stage;
3. October 6-8, 2023 - hosting the final and awards;
4. December 15, 2023 - holding superfinal.

The program of the full-time stage of the Contest is posted on the Website.

7. Winner support form Competition

1. Winners of the internal stage of the Contest are awarded with diplomas, valuable prizes and gifts from sponsors.
2. By decision of the Jury, a certificate of the participant of the Competition and gratitude to the teacher from the Organizers of the Competition will be provided. The number of certificates and thanks is determined by the Competition Jury.
3. The solemn awarding of the winners of the full-time stage of the Competition will take place at the site of the All-Russian Science Festival in Moscow.

8. Operator Competition

- 1 The operator of the Competition is the "School laboratory of scientific creativity "LANAT".
- 2 Mailing address: 119234, Moscow, ter Leninskie Gory, 1 building 77, room. 101a, Science Festival
- 3 Responsible performers:

Sergeev Sergey Nikolaevich - Director of the Competition,

Astapov Artyom Sergeevich – Contest coordinator.

- 4 Questions arising on the organization and holding of the Contest can be sent to the e-mail address uchenye@festivalnauki.ru .

The current information of the contest organizers is available in the Telegram messenger [@ub_festivalnauki_ru](https://www.instagram.com/ub_festivalnauki_ru)

Application (registration form) for participation in the XII International Competition of scientific and technical works of high school students "Scientists of the Future"

1. Information about Scientific leader:

- FULL NAME;
- academic degree, title;
- contact number;
- e-mail;
- a country residence;
- city residence;
- postcode;
- place of work (official name);
- job title

2. Information about the Participant (in the case when the work has two authors, it is filled in for each Participant):

- Name, surname;
- Date of Birth (dd/mm/yyyy);
- class as of September 1 of the current year;
- contact number;
- e-mail (it is this address that will be the login for entering the personal account and subsequent communication with the Organizing Committee of the Contest);

Attention! The following items (address) are filled in sequentially and in accordance with the official name of the territorial entity, the system does not allow you to enter data in any order.

- a country residence;
- city residence;
- postcode;
- detailed home address: street, house, building, apartment;
- the official name of the educational institution without abbreviations;
- full postal address of the student establishments;
- educational phone establishments;
- phone and e-mail parent.

3. Information about scientific project:

- Name project;
- category for which the project is submitted at the Competition;
- the need to place on the stand any installation;
- a brief description of the installation, or photo;
- project type (individual or command);
- The name of the place where the work was specifically performed (at home, at school, institute, CMIT, summer camp and etc. indicating the official name of the place indicated).

Abstracts for the application for participation in the XI V International Competition of scientific and technical works of high school students "Scientists of the Future"

Attention! The volume of abstracts should not exceed 2 pages of A4 typewritten text in PDF format (no more than 6 thousand characters, Times New Roman font, 12, PDF format, maximum file size 15MB). Optionally in the form additional materials To theses may be attached drawings, tables and other graphics. The total volume of additional materials is not more 3x pages (total - 5 pages maximum). Abstracts necessary upload to the Competition website <http://ub.festivalnauki.ru> during or after registration. Abstracts submitted in any other way will not be considered. accepted.

1. Abstracts of each work must contain the following information:

- Name categories;
- Name work;
- last name, first name author(s);
- Class;
- the name of the educational institution from which the Job; postal address, phone number, e-mail of the educational establishments;
- surname, name, patronymic, position and place of work of the Supervisor ;
- abstract text (no more than 2 pages of text, Times font, size 12);
- the list of used literature is located in the text of the abstract under the heading "Literature".

2. The text of the abstract is a brief description of the work done, containing the following information:

- a brief statement of the problem (the purpose and essence of the proposed project);
- description methods solutions tasks at implementation project

(which research methods, experimental equipment and data processing facilities were used in work);

- analysis of the results obtained (what are the main results obtained V progress fulfillment work, their value For scientific and practical use and novelty, why the results obtained are better than those already available).

3. An example of abstracts (line by line):

Category: **mathematics**.

Distance from a point to a cone in Euclidean space.

Kuznetsov Ivan.

Grade: 11.

Secondary school No. 516, St. Petersburg. 193315, St. Petersburg, st. Narodnaya,
d. 63, tel.: (812) 443-85-70; E - mail : director @ shkola 516. spb . ru .

Supervisor: Ivanova Lidia Petrovna, Candidate of Physical and Mathematical
Sciences, Associate Professor of the Faculty of Mathematics and Mechanics of St.
Petersburg State University.

Abstract text (no more than two pages of text).

Video

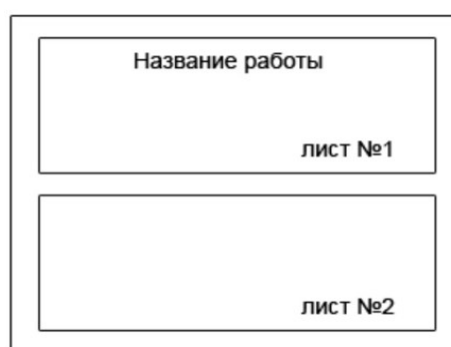
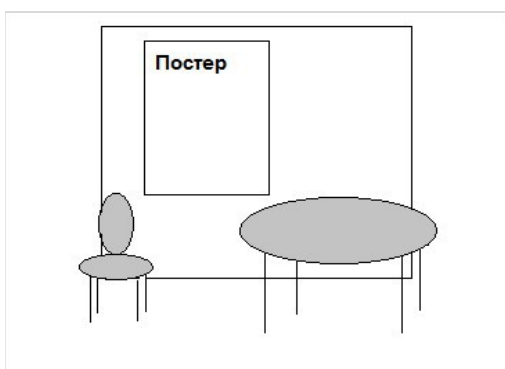
Each project must contain an uploaded video in mp4 format (codec h.264) containing a short (no more than one minute) report by the participant (participants) project O done work. Before loading video clip must be compressed to size no more 150MB.

Stand Design Requirements

Participants of the projects of the full-time stage must arrive at the site of the Competition to place their works. The time and place for collecting posted materials will be separately indicated in the program.

To each project provided separate stand, consisting from structures for placing a poster, table and chairs (according to the number of authors of the work). The work is presented on a **vertical poster of A0 format** or on 2 sheets of standard paper of size A1, located horizontally under each other. The poster is made by the Participant independently.

Scheme of the stand and arrangement of sheets of whatman paper on the poster:



Stand layout

“poster” stated on a picture

Possible Layout of the poster with 2 album A1 papers

(“name of the work”)

“list #1”,

”list#2”

The following printed materials should be presented at the stand:

1. Abstracts of the report.
2. Project Progress Plan (research).
3. Laboratory journal (if available).
4. Additional printed materials illustrating the content work (if need).

It is recommended to place on the stand the installation developed by the Participant or part of it (if the requirements below are met) or a computer with a video recorded by the Participant illustrating the study. The participant himself ensures the safety and security of the demonstrated material, it is recommended to install valuable materials directly on the day of protection

It is forbidden to place on stands:

- living organisms: plants, animals and derivatives materials;
- stone samples, soil;
- all kinds of chemicals, especially flammable and potentially hazardous to health person;
- any dangerous devices (including sharp ones: needles, knives and etc.);
- photographs of laboratory autopsy procedures animals.

Demonstration of any experiments with the use of chemicals, as well as open fire, is prohibited.

Placement of any installation on the stand is agreed with the operator Competition directly at the competition, the author can clarify the features of his installation and the possibility of placing it in advance by e-mail.

During the face-to-face stage, the authors of the projects must be near their stands for an interview with the jury members.

During the time intended for free visits to the Competition site by participants and visitors of the All-Russian Science Festival, the authors of the projects should be near their stands.