XandY LEARNING
presents

XPLORA

SCIENCE FEST

COMPETITION MANUAL

Organised by XandY Learning

Present your scientific ideas, demonstrate your creativity and compete for prizes worth ₹50,000, scholarships and other opportunities.

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IMPORTANT

This manual contains the competition rules and submission requirements. Participants should read it carefully before registering.

01 About XPLORA

XPLORA is an inter-board science fest by XandY Learning, designed to bring together school students from across Kerala to explore scientific ideas, experiment with concepts and communicate solutions through models. The fest welcomes students from different school boards and encourages curiosity, critical thinking, creativity and practical application.

Objective

To provide students with a platform to present scientific understanding and innovation, learn from one another, and gain recognition through competition, prizes, scholarships and related opportunities.

02 Eligibility and Participation

- **Eligibility:** Students studying in Classes 6 to 10 in schools affiliated with any recognised board in Kerala.
- Participation may be individual or in a team of two students. Team members may be from the same school or from two different schools, provided both students meet the eligibility requirements.
- For team entries, both students must satisfy the eligibility requirements.
- Each entry must be registered under one category: Still Model or Working Model.
- Participants must provide accurate student, class and school details during registration.
- A registration fee of Rs. 100 per model will be charged.

> **TEAM ENTRY**
> Students from two different schools may form a team and compete together, provided both students meet the eligibility criteria.

03 Competition Categories

A. Still Model

A Still Model is a static, three-dimensional representation of a scientific concept, structure, system or process. Its primary purpose is to communicate scientific understanding visually, rather than demonstrate a mechanism through active operation.

- The exhibit must remain primarily static. Labels, diagrams and minor visual aids (including identification lights) are permitted where they do not turn the exhibit into a working demonstration.
- The model must clearly communicate a specific scientific concept, principle, structure or application.
- It should be neat, stable, appropriately sized and easy for judges to inspect.

- It must not contain hazardous substances, exposed sharp edges or other unsafe components.

B. Working Model

A Working Model demonstrates a scientific principle, process, mechanism or application through actual operation. Its operation must help observers understand how the underlying scientific principle works.

- The model must do more than illustrate an idea; it must demonstrate its stated principle or function through operation.
- Participants must not present simulated, prerecorded or computer-generated operation as live physical operation.
- Models involving sensors, microcontrollers, robotics, artificial intelligence or software must explain the underlying system and the participants' own contribution.
- Participants must explain what happens when the model operates, why it happens and which scientific principles account for the result.
- The model must be capable of demonstration during the judging period. If operation depends on specific environmental conditions, participants must explain those conditions and arrange a practical demonstration wherever possible.

04 Subject Areas and Themes

Projects may relate to one or more of the following subject areas:

- Physics
- Chemistry
- Biology
- Environmental Science
- Engineering
- Robotics

Participants may choose any scientifically relevant topic. Projects addressing sustainability, public health, agriculture, climate change, accessibility, local challenges or socially useful innovations are encouraged. Such topics will not receive automatic preference unless a specific theme is formally announced.

05 General Project Conditions

- **Originality:** Projects must reflect the students' own understanding and meaningful contribution. Commercial kits, existing inventions and publicly available designs may be used as references; however, merely purchasing, assembling or reproducing an existing model without meaningful student contribution may affect evaluation.

- **Mentor assistance:** Teachers, parents and mentors may guide students, explain concepts and advise on safety. Students must nevertheless understand their projects and independently explain the design, scientific principles and limitations.
- **Acknowledgement:** Participants must acknowledge external designs, data, images, software and other resources used.
- **Originality declaration:** By submitting an entry, participants confirm that the project is not plagiarised and that external resources have been appropriately acknowledged.
- **Accuracy:** Claims, data and explanations presented in the proposal, video and exhibit must be accurate and not misleading.

06 Competition Stages and Submission Process

Stage 1: Online Registration, Submission and Screening

1. Complete the official registration process using the registration link/QR code provided by XandY Learning.
2. Submit a project proposal in PDF format, following the format and requirements in Section 10 of this manual.
3. Submit a video presentation of no more than five minutes explaining the proposed project.
4. Upload the video to Google Drive and submit its shareable link in the registration form. Ensure that access is set to “Anyone with the link – Viewer”.
5. Entries will be reviewed by the organisers/judging team. Selected candidates will be invited to the final round.

Stage 2: Final Round

Selected candidates will be invited to present their models in person on 6 December 2026 at Calicut Trade Centre, as part of the ‘Oppam’ event. Participants will be expected to display their models, explain the underlying concepts and respond to questions from the judges.

> **FINAL-ROUND COMMUNICATION**
> The final-round invitation, reporting time, installation schedule, judging schedule, venue-specific arrangements and any additional requirements will be communicated to selected participants.

07 Video Presentation Requirements

- **Maximum duration:** 5 minutes.
- **Maximum video file size:** 250 MB.
- The video should clearly introduce the project, explain its purpose and describe the scientific concept or principles involved.

- Participants should explain the proposed model and, where relevant, how it is expected to operate.
- The presentation may be delivered in either English or Malayalam.
- For team entries, both participants are encouraged to contribute to the presentation.
- The presentation must be the participants' own explanation. Any prerecorded or simulated operation must be identified honestly.
- Upload the video to Google Drive and submit the shareable link in the registration form.
- Set link access to "Anyone with the link – Viewer" so that the organisers can open and view the video without requesting access. Check the link before submitting.

BEFORE SUBMISSION
Open the Google Drive link in a private/incognito browser window or ask someone outside your account to verify that the video is accessible.

08 Final-Round Rules and Safety

A. Attendance and Conduct

- Both registered participants must be present during judging. If an exceptional circumstance prevents one team member from attending, the organisers may decide whether the remaining student may compete.
- Participants must respect fellow exhibitors, judges, visitors and event staff. Tampering with another team's exhibit or obstructing another display is prohibited.

B. Equipment and Demonstration

- Participants must bring all components, accessories, power supplies, consumables and supporting equipment necessary to operate and explain their models.
- Any electricity-dependent model must comply with the event's electrical safety requirements. Low-voltage, battery-powered systems are preferred.
- Mains electricity, exposed high-voltage circuits, open flames, explosive materials and hazardous chemicals are prohibited unless explicit prior written approval is obtained. The organisers may prohibit these components entirely.
- Models involving water must be designed to prevent spills, electrical contact and damage to the venue.
- Moving components must be adequately secured or guarded to prevent injury.
- The organisers may inspect any exhibit and may require modification, disconnection or removal of a component considered unsafe.

C. Size and Display Requirements

- Participants must mention the proposed model's dimensions in the project proposal/application: length, width and height, preferably in centimetres.

- For models requiring additional floor space, special positioning, projection, sound, water or other facilities, participants must clearly state the requirement in the proposal.
- The organisers will communicate the permitted display space, table dimensions, power availability and any venue-specific restrictions to selected participants before the final round. Participants must not assume that additional space or facilities will be available.

D. Additional Instructions

Any further requirements relating to installation, display space, power supply, safety, access, timing or venue arrangements will be communicated to selected participants before the final round. Participants are responsible for complying with all such instructions.

09 Awards and Recognition

Awards will be presented to the first-, second- and third-place winners in each category. Prizes worth a total of ₹50,000, along with scholarships and other opportunities, form part of the recognition offered through SPARKX. Specific prize details, scholarship terms, eligibility conditions and any associated benefits will be announced by the organisers.

CATEGORY	1ST PLACE	2ND & 3RD PLACES
Still Model	₹10,000	₹7,000 / ₹5,000
Working Model	₹10,000	₹7,000 / ₹5,000

10 Project Proposal: Guidelines and Format

Every participant must submit a project proposal in PDF format along with the registration. The proposal should briefly explain the project, its scientific concepts and its practical applications.

A. Formatting Requirements

- **Maximum length:** 3 A4 pages.
- **Font:** Arial.
- **Body text:** 11 pt; headings: 14 pt.
- Submit the proposal in PDF format.
- Include clear and relevant images, diagrams or illustrations wherever necessary.
- All information must be accurate and presented in the students' own words.
- Photographs of existing models or conceptual drawings may be included to explain the proposed project.
- The proposal may be written in either English or Malayalam.

- The proposed model's dimensions must be stated clearly, including length, width and height. Mention units (preferably centimetres). If the model needs additional display space or special facilities, state these as well.

B. Project Proposal Format

1. PROJECT DETAILS

- Project Title
- Category: Still Model / Working Model
- Subject Area
- Proposed Model Dimensions (L × W × H) in cm

2. STUDENT DETAILS

- Name(s) of Student(s)
- Class / Grade
- School Board
- School Name
- District

3. PROJECT ABSTRACT

- Briefly describe your project, what it aims to demonstrate and the scientific idea behind it.

4. PROBLEM STATEMENT / PURPOSE

- What problem, question or real-life situation inspired you to develop this project?

5. OBJECTIVES

- Mention 2–4 main objectives of your project.

6. SCIENTIFIC PRINCIPLE

- Explain the scientific concepts, theories or principles involved in your project.

7. MATERIALS REQUIRED

- List the major materials and components required for developing the model.

8. INNOVATION AND PRACTICAL APPLICATIONS

- What makes your project distinctive? How could it be useful in real life?

9. PROJECT IMAGE / DIAGRAM

- Attach a relevant photograph, conceptual drawing, illustration or diagram of your proposed project.

LANGUAGE

Both the project proposal and the video presentation may be submitted/presented in English or Malayalam.

Note: All sections should be completed briefly and clearly. Students are encouraged to use simple language and explain their ideas in their own words. The proposal is a screening document; selected participants may be asked to clarify details or provide additional information.

11 Evaluation Framework

Projects will be assessed by the judging panel. The detailed scoring rubric and weightage, if applicable, will be communicated by the organisers. The following areas are recommended for evaluation:

- Scientific understanding and accuracy
- Originality, creativity and meaningful student contribution
- Clarity of explanation and ability to answer questions
- Relevance and practical application
- Quality of design, construction and presentation
- **For Working Models:** functionality, reliability and quality of live demonstration

12 General Organiser Conditions

- The organisers reserve the right to seek clarification about any submitted proposal or project.
- The organisers may reject, restrict or disqualify an entry that violates eligibility requirements, originality standards, safety rules or event instructions.
- The organisers may stop a demonstration or require changes if a model presents a safety risk or disrupts the event.
- Decisions of the organisers and judging panel on matters relating to the competition will be final, subject to the rules communicated for the event.
- Participants and, where applicable, their parents/guardians are responsible for ensuring that the project is transported and handled safely.
- Registration does not guarantee selection for the final round.

13 Registration and Important Information

Participants must register through the official registration link/QR code and submit the required project proposal and video presentation within the announced deadline. **The registration fee is ₹100 per entry.** The registration link, submission deadline and other instructions will be shared through official event communication.

For registration updates, submission instructions and final-round information, refer to the official communication from XandY Learning.