

Navi Mumbai Science Foundation

[Regn. No.: Maha /2592 / 10 / (Thane) [Bombay Public Trust Regn. No. F/24093/Thane] B-51, Gitanjali, Plot No. 52, Sector – 17, Vashi, Navi Mumbai – 400703. (Mob. 93241 68510) Chairman: Dr. A. M. Bhagwat (Mob. 93241 68510) Secretary: Dr. A.K. Rajarajan (Mob. 99206 45990)

Convener: Dr. Jayant Joshi (Mob. 98694 65169)

Shree Gujarati Samaj

Trust Regn. No: F/968 Thane (1983) Gujarat Bhavan Plot 61 A/B Sector-15,

Vashi, Navi Mumbai-400703 Phones: 27800 134, 2780013

Hon. President: Shri Hasmukhbhai Kanani Exe. President: Shri Kaushikbhai Patel Gen. Secretary: Shri Maheshbhai Katharia



Date: 15 / 10 / 2025.

Science Utsav-2026

(In Association With "Pillai College of Engineering, New Panvel)

<u>Teachers' Conference (TC-26) & Exhibition of Science Experiments – A Two-Day Event.</u>

Dear Sir/Madam,

Navi Mumbai Science Foundation (NMSF) holds its Science Utsav every year in the month of January/February. This academic year's (2025-26) "Science Utsav" will be held accordingly on Jan. 10 & 11, 2026. The two-day event will consist of:

- i) Teachers' Conference (TC-26) on Day-one (Saturday, Jan. 10, 2026), &
- ii) "Exhibition of Science Experiments" by students on Day-two (Sunday, Jan. 11, 2026).

The main theme of TC-26 is "Transforming Science Education through Experiential Learning: A NEP Perspective" and its concept note is attached for reference. It is requested that teachers from your school submit one or more paper(s)/essay(s) on the above theme, individually or jointly, based on their personal experiences. Teachers will have an opportunity to present their paper(s) during the conference. The proceedings of the conference will be available on NMSF website. All the accepted papers will receive a cash incentive. Similarly, a good participation from students of std. VI – IX is encouraged in the "Exhibition of Science Experiments" on Day-two.

The last date for receipt of "papers for Teachers' Conference" and for "write-ups on experiments" is December 15, 2025, along with respective "Google Registration Forms".

Please visit NMSF's website www.navimumbaisciencefoundation.org for the two Google registration forms.

The full paper(s) / writeup(s) on experiments(s) may be sent by "E-mail" to:

<nmsfscienceutsav@gmail.com> OR <Dr. J. V. Joshi: jvjoshi2002@yahoo.co.in/jvjoshi2002@gmail.com>

Other contact persons: Dr. A. K. Rajarajan, akrajarajan@gmail.com (Mob.: 99206 45990), and Dr. A. M. Bhagwat, ambhagwat@gmail.com (Mob.: 93241 68510).

Registration fee for participation is nominal, & has been fixed at

i) Rs. 500/- per participant for Teachers' Conference and

ii) Rs. 500/- per team of a maximum of two students, for the Exhibition of Science Experiments.

Other guidelines for participation are attached.

We look forward to active participation from your school.

With Best Regards,

Yours' Sincerely,

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Dr. Jayant Joshi,

Convener, Science Utsav-2025.

Attachment: 1. A concept note on the theme topic of Teachers' Conference-2026.

- 2. Guidelines for students for participation in Exhibition of Sc Experiments-2026.
- 3. A Poster for display.

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Theme for Teachers' Conference-2026

"Transforming Science Education through Experiential Learning: A NEP Perspective".

CONCEPT NOTE

Background

The aim of this year Teachers' Conference is to focus on the integration of theory with practice to make science education more engaging, inquiry-driven, and experiential. The aim is to move students beyond rote memorization towards a real understanding, where teachers themselves undergo a transition from "leading from the front" to "guiding from behind". The National Education Policy (NEP), therefore, strongly advocates activity-based learning, making it imperative for teachers to rethink classroom practices.

Objectives

The conference seeks to bring together teachers, researchers, and leaders in education to explore innovative practices in science teaching. Key objectives include:

- 1. Highlighting the importance of merging classroom teaching with experimentation.
- 2. Exploring strategies to bridge the gap between **rote learning and real understanding**.
- 3. Promoting creativity, critical thinking, and scientific temperament among students.
- 4. Demonstrating how science can be understood as a **way of life**, fostering rational and socially accepted attitudes.
- 5. Showcasing realistic case studies and classroom practices for middle and high school levels.

Themes

The conference will address a range of themes, including, but not limited to:

- 1. **Enquiry-Driven Classrooms**: It focusses on students' curiosity and questioning, rather than **their being** passive recipients of information. It can include "Learner-Centered **Approach**" encouraging curiosity, and **guiding innovation.**
- 2. **Activity-Based Learning**: It emphasizes learning by doing, wherein the students are involved in the process of learning. The teacher can do this by practical activities, demonstrations and case studies to enhance critical thinking a key aspect of 21st century skills.

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- 3. Strategies to replace Rote-Learning with Hands-on learning: Traditional rote memorization often leads to superficial learning, where students can recall facts but fail to apply them. Bridging this gap involves connecting concepts to experiences. This can be done with the help of concept mapping, problem-solving tasks, and peer teaching.
- 4. **Building Scientific Temperament**: Encouraging rational thinking as a lifelong skill. Scientific temperament is about fostering **curiosity**, **questioning objectivity**, **and rational thinking**. It goes beyond classroom learning to shape a mind-set for life. This can be encouraged by questioning assumptions **and introducing** evidence-based teaching and problem-solving mindset.
- 5. **Practical Innovations for Teachers**: Simple classroom-friendly experiments and methods that can be realistically implemented. This can be done using home-based experiments, interactive simulations, collaborative experiments, and "**Do-It-Yourself**" (**DIY**) models.

Expected Outcomes

- 1. A shift from "teach-and-test" models to "learn-and-practice" approaches.
- 2. Increased student engagement via concepts taught with demonstrations & experiments.
- 3. Development of **creativity**, **curiosity**, **critical thinking and scientific thinking** among learners.
- 4. Improved **motivation and retention** through learning-by-doing.
- 5. Strengthened networks for teachers to share case studies and best practices.

Format

The conference will feature a keynote address es and a few invited talks by education experts, interactive workshops and case-study presentations. Teachers will also participate in hands-on sessions demonstrating low-cost, classroom-friendly experiments.

Target Audience

- Middle and high school teachers
- School leaders and administrators
- Teacher training institutions
- Education researchers and curriculum developers
- Policymakers in education

Conclusion

This conference provides a platform to reimagine science teaching as a **student-centered**, **experiential process**. By equipping teachers with practical strategies and case studies, it aims to foster a culture of **curiosity**, **creativity**, **critical thinking**, **and scientific temperament as envisaged in NEP. It ensures** that learning extends beyond classrooms into real life.

Finally, it may be noted that those papers/essays, which are supported by some data /statistics/ feedback (anyone is sufficient), will get preference over other presentations.

"A Guidance Note for the Authors for submission of Papers" follows.

"Guidance note for the Authors for submission of Papers"

Potential authors are welcome to send papers related to the major theme, even if these do not directly correspond to one of the sub-themes.

Process of the conference: The one-day conference consists of a few invited talks by experts on this subject, and mainly, oral and poster presentations of "contributions by participating teachers". The conference is scheduled for **Saturday**, 10th **January 2026**, at Shree Gujarat Bhavan, Sector-15/16, Vashi. A detailed program will be announced in due course.

Submission of contributions: Essays/Papers, relevant to the topic and not exceeding 1000 words, are invited. These can be in **English / Hindi / Marathi**. These could be submitted, preferably by email to: <nmsfscienceutsav@gmail.com>.

The paper should have a clear title, list of authors, affiliation, abstract, body of the text and references (if any). These will be moderated by experts and peers. Acceptances and feedback will be communicated to the authors. The accepted contributions that are presented by the authors in the conference will be brought out as conference proceedings and will be posted on NMSF website for international access.

Last date for receipt of papers, along with the google registration form (one for each participant) is December 15, 2025. Every participant must individually register even though they are co-authors of same paper. For other details, please see the circular.

Registration for Science Utsav-2026

Registration fee:

Rs. 500/- per participant for "Teachers' Conference" Rs. 500/- per team (a max. of 2 students) for Exhibition of Science experiments.

Mode of payment

1. For Online Transfer:

Bank's Name: Thane Janata Sahakari Bank Ltd.

Address: Vashi Branch, Plot No. 51, Sec. 17, Vashi, Navi Mumbai – 400703.

Name of A/C Holder: Navi Mumbai Science Foundation.

SB A/C No: 012110100002585. **IFSC** Code: TJSB0000012.

2. For payment by Cheque:

Bank's Name: Thane Janata Sahakari Bank Ltd.

Website: http://www.navimumbaisciencefoundation.org

Exhibition of Science experiments (models alone are discouraged).

Guidelines for students & teacher-guides

(Reporting time: 08. 30 am on Sunday, 11th Jan. 2026, at Shree Gujarat Samaj, Sec. 15, Vashi) Introduction: The students can display their creativity and innovative spirit by exhibiting any demonstrative experiment based on any one of the scientific principles/phenomena encountered during school studies. The experiment should involve validation, explanation, application of scientific principle and/or demonstrate its limitations. The emphasis should be on simplicity of demonstration, such that it could even be safely replicated at home using household items.

The rules of the scheme are as under:

- 1. The number of participants **shall not be more than two per experiment** and each of them should have a clearly defined and adequate role in the presentation. The rules of the scheme are as under:
- 2. A student can be part of a maximum of two demo experiments only.
- 3. Students currently in Std. VI, VII, VIII & IX are eligible to take part in the event. They can choose any topic in Physics, Chemistry, Biology or Mathematics. Up to 5 teams per School are normally permitted. A school may set up more experiments, subject to availability of space & with prior permission.
- 4. Each school will also send an accompanying teacher to take care of the safety of their students.
- 5. The participants are required to submit a write-up on the experiment (not exceeding 200 words). The writeup should have a modular structure i. e., a) Aim, / Hypothesis, b) Apparatus, c) Construction of experimental setup, d) Method of measurement, e) Data collection, f) Discussion, h) Inference, / Conclusion.
- 6. Experiments identifying their connection to a particular chapter of a particular standard's science text book (including the syllabus, i. e. CBSE/ICSE/CIE etc.), will receive topmost priority.
- 7. Send your writeup along with the Google registration form.

Registration fee: Rs. 500/- per team/ experiment. Last date for submission of writeups & registration is Sat. Dec. 15, 2025.

- 8. Entries selected by a team of experts will only participate in the exhibition.
- 9. The experiment should be safe and easily portable. Only a table-top space (4 feet by 2 feet) will be provided for its display. All the gadgets/equipment needed for the experiment shall be brought by the participants. No mains supply will be provided. Experiments requiring electric power will be based on the use of a maximum of 12-Volt power supply only, and arranged by the experimenters themselves.
- 10. Exhibits selected by the judges will receive cash prizes. All the participants will receive certificates of participation.