

भौतिक अनुसंधान प्रयोगशाला

(भारत सरकार, अंतरिक्ष विभाग की यूनिट)

नवरंगपुरा, अहमदाबाद—380 009, भारत.



Physical Research Laboratory

(A Unit of Dept. of Space, Govt. of India)

Navrangpura, Ahmedabad—380 009, India

National Science Day 2020

Innovations in teaching by Teachers: Presentation by Teachers

Teaching and learning process of abstract science topics through innovative aids/models are an integral component in any classroom. It not only helps reinforce a skill or concept but also relieves monotony or boredom by presenting information interestingly and excitingly by engaging all the senses of students.

Good teaching models/aids play a pivotal role in enhancing the learning of difficult science topics. Many teachers are involved in making science teaching models/aids and improvised apparatus for demonstrations in their classrooms. However, their isolated efforts in the schools often do not get recognition at any platform except for their schools.

Over the years, PRL is having teachers as accompanying persons with student participants for National Science Day celebrations. This year PRL is taking the initiative to introduce the activity for teachers with their active participation. The name of the activity is “Innovations in teaching by Teachers.” Through this activity, we are hopeful that some teachers will get a platform to showcase their efforts in the development and use of innovative science teaching models/aids. At the same time, they may also learn something interesting from other teachers.

OBJECTIVES

- To encourage creative and innovative classroom demonstrations by teachers.
- To provide an opportunity for teachers to share their creative and innovative approaches and ideas in teaching with peers.
- To highlight the importance of teaching material in the teaching-learning process.
- To appreciate and encourage novel methods and/or techniques originally developed and practiced by teachers

1. Entries for Presentation are invited only from selected schools for NSD 2020 participation.
2. Only one entry/ proposal is allowed from one school. The model presented should be either original or should have an identifiable innovation incorporated in it
3. A brief explanation of the proposal with a title along with pictures should be submitted online using a link <https://forms.gle/GhjHnQbcaxxhmtv9> on or before 15 February 2020.
4. Six to ten proposals will be selected among all the entries received. Selected proposals will get a confirmation by 25 February 2020. The chosen teacher will present the work for 10 minutes in a classroom atmosphere. The participants will be making an oral presentation and demonstrate the use of the teaching aid/material/model. Oral Presentation will include all the information as given in the short write up.



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6. **The model proposed could be on any specific topic in any branch of science at the high school level (11 and 12 standards).**
7. The teaching aid/material has to be prepared or created by an individual teacher. It may encompass material and other physical means/infrastructure/ tools/ apparatus/ equipment used by the teacher to deliver a lesson, support student learning, engage students to acquire knowledge in different ways, and facilitate the achievement of learning outcomes.
8. The teacher should try to teach at least one concept of her/his interest, clearly and thoroughly, through Presentation or demonstration
9. The teaching aid/material may be a visual aid/audio aid/audiovisual aid, projected or non – projected. So the teaching aid/material may be a chart, game (board/file folder/any other), puppets, cartoon(s), mobile technology, models, cards, videos, etc. The use of hazardous material and chemicals is prohibited due to security reasons.
10. The items or the material used to prepare or create the teaching aid/material shall be purchased/ designed by the teacher himself/herself / computer-generated / any other and is readily available. Use of biodegradable or recycled products/material in making teaching aids shall be appreciated.
11. The participating teachers/ schools have to bear all the expenses related to participation in the competition. They have to make their travel and stay arrangements.
12. The participants will have to bring their supporting material, e.g., laptop, internet connection, tapes, charts, etc. for displaying their teaching aid/material, and details of the same needs to be sent to PRL via e-mail (sciday@prl.res.in).
13. The merit of the activity is to see how effectively and interestingly the Topic is taught and how deeply and quickly the students understand it.
14. All presentations will be given an appreciation prize and a certificate.
15. Teachers have to submit a maximum one-page write-up (in PDF format) describing the model/teaching aid. The headline of the document should specify the Topic.

Presentation Objectives (suggestive)

The teaching aids can be presented with the following objectives:

1 Originality and Creativity

2 Adaptability - Easy to make, cost-effective, time-efficient and the material used

3 Ease of use – Easy to use and demonstrates usability in classroom settings

4 Educational Significance/ Instructional Appropriateness - The model/ aid/ material prepared/ created/ developed is appropriate; encompasses the significance of teaching the Topic on which the aid has been made; matches the grade level of the target audience and supports their learning or facilitates achievement of learning objectives