

Organizing Science Popularization Outreach Activities through Exhibition and Science Activity Corners to promote Innovation

Organised By: Chandigarh University, Gharuan

Sponsored By: NCSTC Division, DST, GOI



Chandigarh is a city of cultural heritage, urbanization and mythical Goddess, which represents wisdom of society, is an epitome of Indian culture and diversity, Chandigarh University (CU) is located in the vicinity of the city beautiful, Chandigarh University commits itself to contribute towards full filling the dream of educated and skilled India by providing excellent scientific, technical and professional education. Chandigarh University offers a unique and inspirational academic model designed to match the global standards. At Chandigarh University, we go beyond the classroom, to a place where teachers are experience. Solutions of the problems that address social, technical and economic needs. Beyond the laboratory, to the research that propels industries, organizations and society. Chandigarh University is known for championing new ways of thinking. The university is at the forefront of innovation and home to transformational research and inspired learning. Chandigarh University has a dynamic academician fraternity drawn from top universities nationally and internationally. Our students have the opportunity to learn from and work with preeminent thought leaders through our multidisciplinary network of teaching and research faculty, alumni, industry, and partners. Chandigarh University has

partnered with more than 180 top ranked universities worldwide to provide global perspective to its graduates and to facilitate students with global learning opportunities through student exchange programs.



Chandigarh University has organised the Science outreach program with the help of admission cell and UCRD department of the University from accompanied by faculty members Dr. Sanjeet Singh, Dean Research, CU, Dr. Harjot Singh Gill, Mr. Puneet-Head Admission cell and Mr. Ashish Sharma-Senior Manager, admission cell along with their team from the Chandigarh University.

Introduction

All children are naturally motivated to learn and are capable of learning. They are natural learners and knowledge is the outcome of their own activity. Children learn through interactions with the environment around, nature, things and people - both through actions and through languages. They construct knowledge by connecting new ideas to their existing ideas based on materials/activities presented to them. The structuring and restructuring of ideas are essential features as children progress in learning. They actively engage with the world around them, exploring, responding, inventing, working things out, and interpreting



Science has become one of the most important gradient in the development of the society. It is well known fact that science education in our country has not been able to enthuse the young minds towards science. Further in majority of government schools there is no laboratory facilities at middle school level. Bare theoretical teaching of science cannot inculcate the quality needed for one to learn scientific methods and attitude. The situation is even worse in the school situated in rural areas. To give these children real essence of science, we conceive the idea of conducting science fair. Training programme where children from the school of three of kharar block will be collected for two hours and exposed to science experiment.

Objective

The purpose of science exhibition is to develop scientific attitude in the young generation of our country to make them realize the interdependence of science, technology and society and the responsibility of the scientists of tomorrow. These objectives may be achieved by presenting the exhibits as an exciting experience of creativity of children, innovations through improvisations of science kits, and various devices and models for providing solutions to many present and

future socio-economic problems particularly those confronted in the rural areas, using available materials and local resources.



The exhibition will help children and teachers to learn from each other experience and motivate them to design and develop something new and novel. It will also provide a medium for popularizing science and increasing awareness among the public towards it. The objectives of organizing science exhibitions may briefly be put as follows:

- stimulating interest in science and technology and inculcating scientific spirit in younger generation;
- exploring and encouraging scientific and technological talent among children;
- inculcating in them a sense of pride in their talent;
- making children realize the relationship between science and technology and society; understanding the need for proper management for the optimum utilization of resources and prevailing technologies;
- providing exploratory experiences, encouraging creative thinking and promoting psychomotor and manipulative skills among children through self-devised exhibits or models or simple apparatus;
- encouraging problem solving approach and developing appropriate technologies, especially for rural areas and integrating scientific ideas with daily life situations;

- inculcating intellectual honesty, team spirit and aesthetic sense among the participants; popularizing science among masses and creating an awareness regarding the role of science and technology in socioeconomic and sustainable growth of the country;
- developing appropriate techniques for communication of science, technology and its management.

It is envisaged that teachers and students would try to analyse all aspects of human endeavor with a view to identify where and how the new researches and development in science and technology can bring effective management of the resources of the earth for global sustainability. The organization of science exhibitions would also provide opportunities to all participating students, teachers and visitors to get acquainted with different kinds of equipment, devices and techniques. This exercise would enable the students and teachers to generate scientific ideas for addressing various problems of the society.

These are the activities:

We focus on the students from classes from 8th and 10th and aware them with the help of hands on experiments and exhibition of science in the field of:

Physics: Thermal conductivity of metals which metal is the best conductor of heat.

How to make lemon battery.

Sink or swim calculating density of fruits and vegetables.

Spinning the colors how do primary color combine to make new color?

Chemistry effect of heat on vitamin C in tomato.

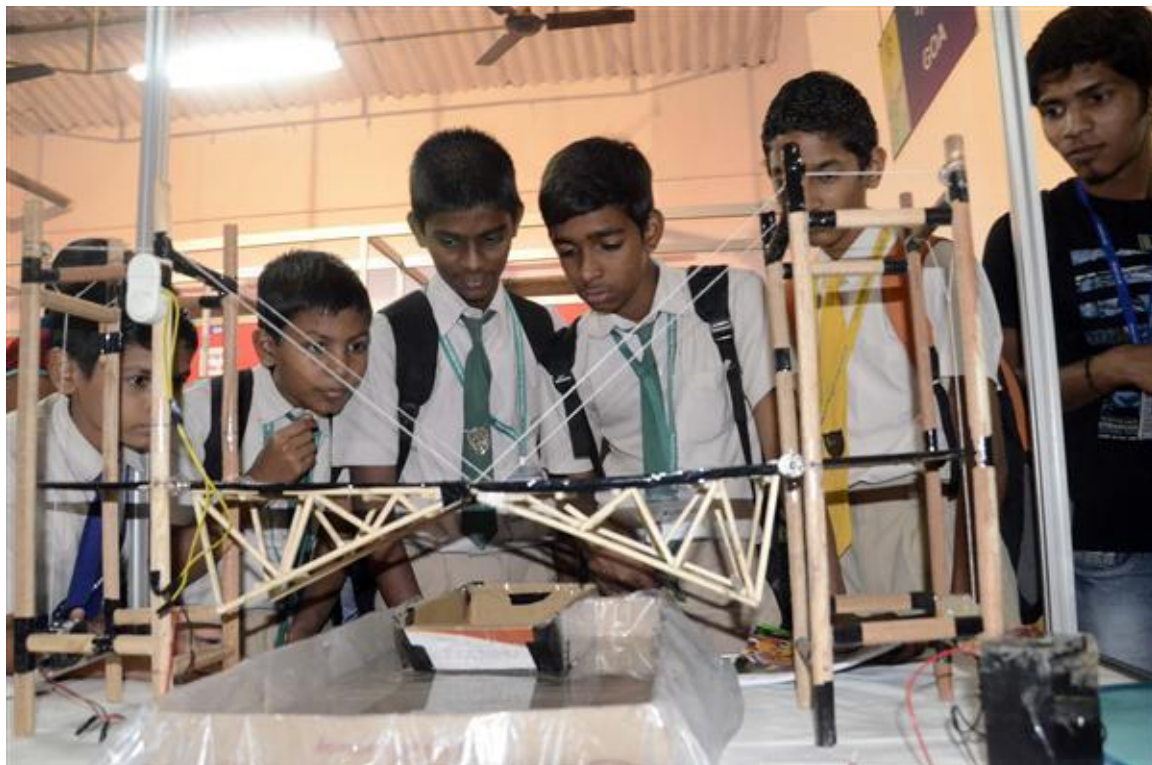
To check ions present in the toothpaste and determine the quantity.

To study diffusion of solids in to liquids.

Maths to study angles of shapes.

Activity using Pythagoras theorem.

Activity on Ramanujan's square.



Chandigarh University got the grant from the Department of Science and Technology (NCSTC Division). This granted amount is used to promoting the Science, Innovation and Creativity among the school students. Chandigarh university got the grant of Rs. 18,92,000/- (Eighteen lacs ninety two thousands only) with letter number **CO/A/FP/E10/2018** on 16-11-2018. This amount is used in the 4 different cities for organizing science popularization outreach activities through exhibition and science activity corners event for the students.

S.No.	Place	Date of Organized
1	HOSHIARPUR	15 th January 2019
2	GURDASPUR	16 th January 2019
3	BATHINDA	22 th January 2019
4	JALANDHAR	30 th January 2019
TOTAL CAMPS		4

Hoshiarpur

On 15th January 2019, Chandigarh University organized their first event in Hoshiarpur. Chandigarh University invites number of students in their event. Around 1000 students came to the event and participate in the science event with more energy and excitement.



Gurdaspur

Chandigarh University organized there one of the good event in gurdaspur on 16th January 2019. Almost 800 student participate in that event. In this event, student show their science model and talk about the science and their benefits.





Bathinda

On 22th January 2019, Chandigarh university organized their science event in Bathinda to encourage the young talent towards science and expert team also gave the lecture on science their benefits in the future. Approx. 600 candidate participate in the event from different schools and took the advantages of the science program.



Jalandhar

On 30th January 2019, Chandigarh University organized the science event in Jalandhar to inspire the young minds about science and awareness of the science in their life.



Students had made still models, working models, charts and posters to present their topics. Our Team members encouraging the students to put up such a wonderful and enlightening exhibition. The judges appreciated the students. They asked students about the scientific concepts forming the foundation of the models. Students were encouraged to develop a scientific fervour and an attitude of research mindedness so that they develop the qualities of analytical and critical thinking.



A science program was held on the month of January, 2019 wherein students showcased static and working models which can be used for learning various scientific concepts for children of the age group 13-18 years. The objective was not only to inculcate a scientific attitude and research-mindedness but also creating teaching aids. It involves students to participate in activities so as to understand the cognitive, affective and psychomotor aspects of the task.

Student-teachers from the Science group across all the programmes of School of Education participated in this activity and made models which are used as teaching aids during their school internship programme later. They had chosen topics from NCERT Science books from Standard six till standard twelve. A teaching aid is a very effective tool to make the classroom experience of the student very real and meaningful.



EMPOWERING THE SOCIETY THROUGH RESEARCH & INNOVATION

We believe in making the world a better place by educating and empowering the society with the help of research and innovation. We aim to make a difference to the society by providing solutions to complex day-to-day problems faced by society. Also, our students & faculty from University Centre for Research & Development regularly conduct training & mentoring camps for students from rural areas of Punjab in collaboration with DST, GOI.



○ **50000+**
school students trained under Science Outreach Program

○ **11000**
students trained under the INSPIRE internship program

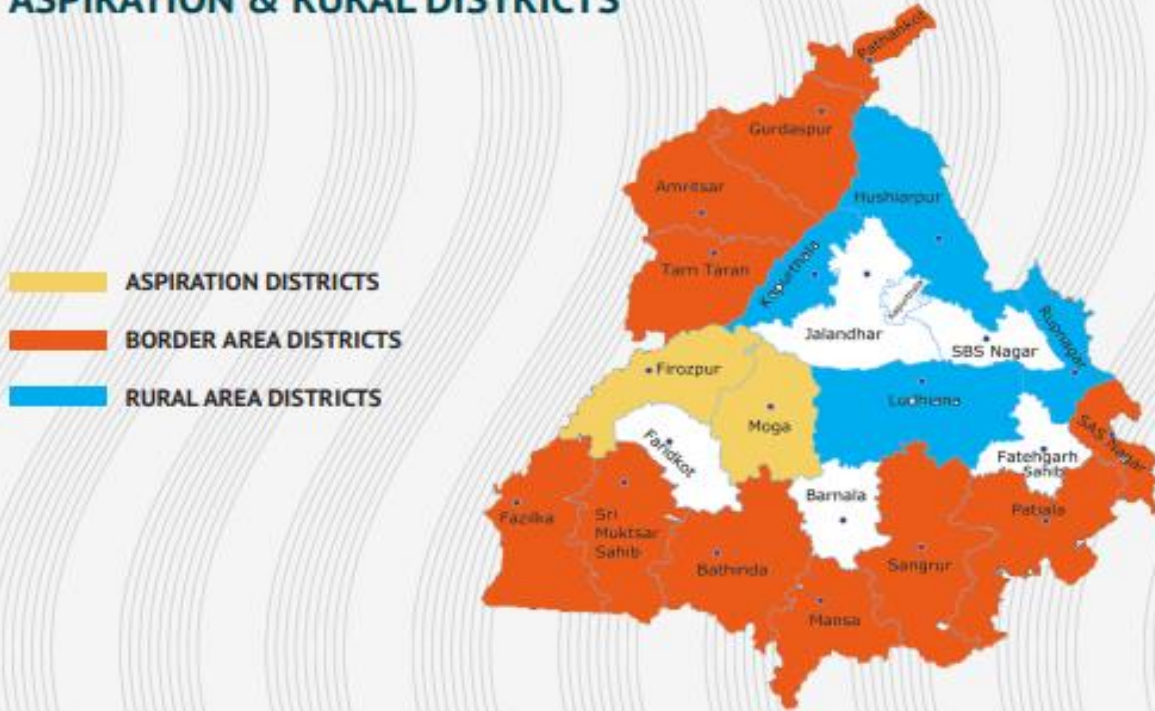
○ **15000+**
Students trained under Science Bus

○ **WATER TESTING**
for the villages - Gharuan, Mammupur, Rurki Pukhta under Eco-Eureka Project in collaboration with DST



WORKING IN ASPIRATIONAL & RURAL DISTRICTS

PROMOTION OF SCIENCE, INNOVATION & CREATIVITY AMONG SCHOOL STUDENTS FOR ASPIRATION & RURAL DISTRICTS



STUDENTS DISPLAYING THEIR PROJECTS



STUDENTS PRESENTING THEIR MODEL AT SCIENCE EXHIBITION IN MOGA



STUDENTS PRESENTING THEIR MODEL AT SCIENCE EXHIBITION IN LUDHIANA



STUDENTS EXPLAINING THEIR MODEL AT SCIENCE EXHIBITION IN FERROZPUR TO DR. JASWINDER SINGH



WINNERS OF SCIENCE COMPETITION POSING WITH THEIR MODEL

