

Science Outreach Programmes of the Exciting Science Group 2011-2012

UPDATE (01 November 2012)

This report lists the talks and other activities that were conducted since March 2012. There were three main activities – The Popular Science talks that are held once a month, typically on the last Sunday of the month at 10am at the Venture Center campus. In the last few months, we have also had some very distinguished scientists from around the world who have spoken to the school students in Pune as part of the Popular Science Talks. The following are the Popular Science talks since March 2012, and photographs from some of these talks.

1. Popular Talks:

Date	Speaker, Affiliation	Title
25 March 2012	Dr. Kumar Vanka, NCL	Chemistry of Acids and Bases
29 April 2012	Dr. Sayam Sen Gupta, NCL and Ms. Sarita Dhimate	The Art and Science of Colour
27 May 2012	Dr. K. Guruswamy, NCL	The Discovery of Elements
24 June 2012	Dr. Nandini Devi, NCL	Crystal Growing
29 July 2012	Dr. Dhanasekaran Shanmugam, NCL	Tropical Infectious Diseases: Biology & Global Impact on Human Health And Economy
19 August 2012	Dr Neetu Singh, NCL	How knowing the small is helping in our fight against diseases
25 August 2012	Prof. Cynthia Goh, University of Toronto, Canada	The forces that bind molecules: from basic science to new technology
30 September 2012	Prof. M. G. Finn, Scripps Institute – La Jolla, USA	Chemical reaction energetics (announced)
28 October 2012	Dr. Magesh Nandagopal, NCL	Chemistry that you can eat – The science behind food and cooking
25 November 2012 (PLANNED)	Dr. Anisa Chorwadwala, IISER-P	Fun with Maths



March 2012: Dr. Kumar Vanka's talk on the Chemistry of Acids and Bases



April 2012: Sarita and Sayam talk about the connections between chemistry and art.



May 2012: Guruswamy talks about the Discovery of Elements.



June 2012: Bhakti helps Nandini with experiments and July 2012: Dhanasekaran's talk on malarial parasites.



August 2012 talk by Cynthia Goh



MG Finn demonstrates the thermite reaction in September 2012, and Magesh demonstrates the chemistry behind food in October 2012.

2. Talks at the Vidya Niketans (Hutatma Balveer and KC Thakeray), and at the Jawahar Navodaya:

Since the KC Thackeray Vidya Niketan joined our programme only this year, we have repeated a few talks from the previous years at this school, in addition to the new talks for the year.

The schedule of talks at these schools since March 2012 is as follows:

Hutatma Balveer school:

20 March 2012: *Scientific Enquiry* by K. P. Mohanan (IISER-P)

28 September 2012: *Fund with Maths* by Anisa Chorwadwala (IISER)

14 December 2012, 12.00 -13.30 (Planned): Sutirth Dey (IISER)

January 2013, Planned: Srinivas Hotha (IISER)

February 2013, Planned: Neetu Singh (NCL)

K C Thackeray school:

21 July 2012: *Discovery of Elements* by K. Guruswamy (NCL)

1 September 2012, 11.30-13.00: *Science of Sound* by Anirban Hazra (IISER)

14 September 2012, 14.15-15.30: *Stuff of Brains* by Aurnab Ghosh (IISER)

16 October 2012, 14.15-15.30: *Experimenting in a Lab without Walls* by Milind Watve (IISER)

8 November 2012, 11.45-13.00, Planned: *Chemistry that you can Eat* Magesh Nandagopal (NCL)

December 2012, Planned: Sutirth De (IISER)

January 2013, Planned: Srinivas Hotha (IISER)

February 2013, Planned: Neetu Singh (NCL)

Jawahar Navodaya:

27 September 2012: *Fun with Maths* by Anisa Chorwadwala (IISER)

26 November 2012 (Planned): *Experimenting in a Lab without Walls* by Milind Watve (IISER)

December 2012: Sutirth De (IISER)

January 2013: Srinivas Hotha (IISER)

February 2013: Neetu Singh (NCL)



March 2012: Mohanan speaks at the Hutatma Balveer school



September 2012: Solving math puzzles during Anisa's talk at the Hutatma Balveer school



October 2012: Milind Watve speaks at the KC Thackeray school and Hutatma Balveer school.

3. Science Clubs at the KC Thackeray and Hutatma Balveer schools:

The objectives of the science clubs are the following:

1. Exposure to *cool science stuff* to get students excited about the world of science
2. Continued peer learning amongst the members of science club to share joy of learning science
3. Engaging interaction with scientists/ students pursuing scientific research to inculcate scientific and rational attitude

Currently, at the Hutatma school, we have 60 students from 8th and 9th class who come for between 1 hr to 1 hr 30 min on Saturdays (from 10 am to 11-30 am) while at the K C Thackeray School, we have 40 students from 7th and 8th class who come between 2.30 to 3.30 pm on Fridays.

Science Club activities in Sept-Oct 2012:

Science club activities have been initiated in both the schools by liaising with the principals and science teachers.

Specific hands-on activities have been identified to be demonstrated and initiate discussions among students.

4 Sessions have been conducted in the Hutatma Balveer school and 2 sessions have been conducted in K C Thackeray School by Sugat Dhabolkar.

The session included discussions on scientific questions, demonstration of hands-on science activities and discussion among students, making groups and doing activities in groups.

The sessions focused on scientific thinking and enquiry abilities.

Hutatma Balveer School

	Date	Attendance	Topic
Session 1	18-Sept	Around 60 students	Introduction, Asking scientific questions, quest bank details, String experiment, Balancing ruler experiment, Wave model
Session 2	25-Sept	Around 60 students	More on scientific questions, experiments outside lab, Group formation, Water Siphon experiment
Session 3	6-Oct	Around 60 students	Straw rotation experiment, discussions
Session 4	17-Oct	Around 40 students (Due to some other activities in the school)	Paper tearing experiment and discussion

KC Thackeray school:

	Date	Attendance	Topic
Session 1	28-Sept	Around 40 students	Introduction, Asking scientific questions, quest bank details, String experiment, Importance of careful observation in science through a demo, Types of scientific questions
Session 2	5-Oct	Around 40 students	Logic in Biology session