

# DST-INSPIRE INTERNSHIP SCIENCE CAMP - 2012



Department of Science & Technology  
Govt. of India

*In association with*



Jagadis Bose National Science Talent Search  
Govt. of West Bengal

**Science Camp Entitled:**

**“WHY SCIENCE?”**

**March 20 – 24, 2012**

**At JB Centre of Excellence for Student – Scientists**



**Jagadis Bose National Science Talent Search,**

1300, Rajdanga Main Road, Kasba, Kolkata – 700 107

Phone : 2441 7542, 2442 8270 Fax : (033) 2442 8267

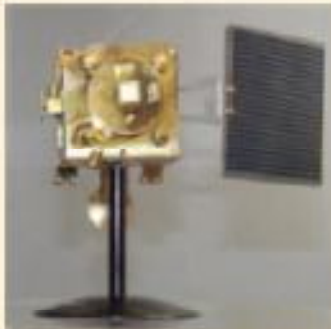
E-mail: [jbnsts@gmail.com](mailto:jbnsts@gmail.com) / [jbnsts@vsnl.com](mailto:jbnsts@vsnl.com); Website : <http://www.jbnsts.org>

## About JBNSTS

Jagadis Bose National Science Talent Search (JBNSTS), Kolkata was conceptualized in 1958 by visionaries such as Dr. B C Roy, Sir J J Ghandy and others to commemorate the Birth Centenary Celebration of India's first modern scientist, Acharya J C Bose. The program was inaugurated by Pandit Jawaharalal Nehru. JBNSTS is an autonomous institute promoted by the Department of Higher Education, Government of West Bengal. It is administered by a Governing Body with representatives from the State Government, academia and industry. Since 1961, JBNSTS is awarding the prestigious Jagadis Bose Scholarships to selected group of undergraduate students of science, engineering and medicine.



In the last five decades, JBNSTS has grown to become a premiere institute of non-formal science education in the eastern and northeastern States of India with the objective towards pursuit of excellence through motivation, identification and nurture of young talented science students. It helps students to realize the importance of excellence in the scientific world and try to cultivate this in their own lives as students of science.



JBNSTS also encourages students towards the learning of basic sciences and inculcates scientific spirit in the minds of young high school and undergraduate students. Focus has been on unconventional and dynamic methods of non-formal accelerated learning through "out-of-class" activities, which have led to the recognition of intellectually sensitive and inquisitive minds. Since 2004, JBNSTS has launched an innovative middle school science Teachers Training Program which has brought into its ambit motivated teachers from the districts of West Bengal. JBNSTS has developed science kits and distributed to the teachers for demonstrating scientific principles to the middle school students in the classroom. The financial support for most of the activities of JBNSTS is provided by the Department of Higher Education & Department of Science & Technology, Government of

West Bengal. In addition, Council of Scientific & Industrial Research (CSIR), Department of Science & Technology (DST), Government of India & Industries also collaborate with JBNSTS activities.

## About DST-INSPIRE Program

Innovation in Science Pursuit for Inspired REsearch (INSPIRE) is an innovative programme being implemented by the Department of Science and Technology (DST), Govt. of India. The basic objective of INSPIRE is to communicate to the youth of the country the excitement of creative pursuit of science, attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the Science & Technology System and Research & Development base. Under the INSPIRE project 'Scheme for Early Attraction of Talents for Science' (SEATS) is a program to inspire talented Science students (top 1% performers in class-X board examination) into basic science streams.



A striking feature of the programme is that it does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent and builds on opportunities that can be derived within the systems.

Science camps are a great way for children to explore the principles and methods of scientific research and strive to get young people interested in science at an early age. They are based on concepts of facilitated self-learning, holistic education, group activities, exchange of cross-cultural ideas, motivation towards independent thought and action and forming life-long friendships with similar minded people and established scientists. Leadership, passion and appreciation of the nature around us are invaluable characteristics for future scientists, and the Science Camp activities strive to encourage these traits.



### Organizing Committee

**Chief Patron:** Dr. A. Mukhopadhyay, DST, Govt. of India

**Academic Committee:**

Prof. (Dr.) Papiya Nandy, Hony. Director, JBNSTS

Dr. Paromita Roy, Dy. Director, JBNSTS

Dr. Smarajit Manna, Student Advisor, JBNSTS

Dr. Abhijit Kar, Scientific Officer, JBNSTS



**Mentors**

**Dr. Kankan Bhattacharya**

Professor and Director  
Indian Association for the Cultivation of  
Science, Kolkata

**Dr. Sushanta Dattagupta**

Professor and Vice-Chancellor  
Visva-Bharati University  
Santiniketan, Birbhum, West Bengal

**Dr. Ashesh Nandy**

Centre for Interdisciplinary Research &  
Education, Kolkata

**Shri G S Rautela**

Director General  
National Council of Science Museums,  
Kolkata

**Dr. Partha Deb Ghosh**

Professor  
Department of Botany  
Kalyani University, Nadia

**Dr. Indranath Sengupta**

Professor  
Department of Mathematics  
Jadavpur University, Kolkata

**Dr. Kalyan K. Mukherjee**

Professor  
Department of Botany  
Bose Institute, Kolkata

**Dr. Rajat Majumder**

Associate Professor  
Geological Studies Unit  
Indian Statistical Institute, Kolkata

**Dr. Abhijit Kar**

Scientific Officer, JBNSTS, Kolkata

**Dr. Smarajit Manna**

Student Advisor, JBNSTS, Kolkata

**Dr. Kamal Kr. Bardhan**

Senior Professor  
Experimental Condensed Matter Physics  
Division  
Saha Institute of Nuclear Physics, Kolkata

**Dr. Utpal Kr. De**

Professor  
School of Environmental Studies  
Jadavpur University, Kolkata

### CAMP RULES

**Welcome to the Science Camp "WHY SCIENCE?"**

Here you will have a unique experience of learning science through active interaction with great scientists and be encouraged to share your ideas with others. No test/grade – only learning science in a different way.



**Please note the following points carefully:**

1. The camp hours are from 09:30 a.m. to 5:00 p.m. You are to attend all the sessions in your school uniform. **MOBILE PHONES MUST BE KEPT IN SWITCH OFF MODE DURING ALL ACADEMIC SESSIONS.**
2. You are required to submit an attested copy of your X<sup>th</sup> Standard Board Examination Mark Sheet, held in 2011, during the morning registration on **21<sup>st</sup> March, 2012** at registration desk.
3. You are required to fill up the STUDENT'S INFORMATION SHEET & FEED BACK SHEET and submit it on **24<sup>th</sup> March, 2012** at registration desk during afternoon registration.
4. Travel bills (bus, auto and / or train fare only) are to be submitted on **23<sup>rd</sup> March, 2012** during **01.00 p.m. – 02.00 p.m.** (during afternoon registration at Science City). Your reimbursement will be made on **24<sup>th</sup> March, 2012** between **01.00 p.m. to 02.00 p.m.**
5. All students of the Science Camp will receive a book grant of Rs.1,000/- to purchase science books. You have been given a list of suggested books. You are most welcome to purchase science books of your choice and submit the bill(s), authorized by respective Headmaster/ Headmistress, for reimbursement **latest by April 05, 2012.**
6. All the participants will be divided into groups. There will be a group leader for each group selected by group members of each group. On **24<sup>th</sup> March, 2012**, there will be a session for Project Presentation by the participating students. Each group has to prepare a scientific project on formulation of a innovative problem of their choice (Details are given in Annexure I) and will have to present in front of the judges' bench (Power-point /chalk & talk) during **02:00 p.m. – 05:00 p.m.** on that day. Each group will get 10 minutes for presentation and 5 minutes for discussions.
7. You will not be given any home work, but you are expected to interact freely with the experts, your group members and other groups. On the last day i.e. **24<sup>th</sup> March, 2012** you will receive the Participation Certificate.

**Name of the participating schools:**

Calcutta Girls' High School  
Don Bosco High School, Liluah, Howrah  
St. Augustine's Day School, Barrackpore  
W.W.A. Cossipore English School, Kolkata  
The Heritage School, Anandapur, Kolkata  
Central Modern School, Baranagar, Kolkata  
Delhi Public School, Kasba, Kolkata  
Apeejay School, Salt Lake, Kolkata



St. Xavier's Collegiate School, Park Street, Kolkata  
Calcutta International School, Anandapur, Kolkata  
St Thomas' Boys' School, Kolkata  
M C Kejriwal Vidyaapeeth, Liluah, Howrah  
Indira Gandhi Memorial High School, Dum Dum, Kolkata  
Calcutta Boys' School, Kolkata  
Delhi Public School Megacity, Kalkapur, Kolkata

## **BRIEF INTRODUCTION TO THE EXPERTS**

### **DR. PAPIYA NANDY**

Prof. Papiya Nandy received her Masters degrees in Physics from University of Calcutta and University of California at Santa Barbara and Ph.D. on Liquid Crystals from Kent State University, USA. Her post-doctoral work was in Experimental Biophysics from Max Planck Institute, Göttingen, Germany. Later she was Associate Professor of Physics in University of Ulm, Germany. She joined Physics department in Jadavpur University and besides teaching for more than 35 years in the Science and Engineering faculties, she was and still is in charge of several research projects. Her field of research encompasses membrane biophysics, numerical analysis of DNA and protein sequences and application of Nanomaterials in ceramics and bio systems. She has more than hundred research publications in peer reviewed journals and 3 patent awards. She has guided 12 Ph.D. Thesis and 20 Masters Thesis. She is currently the Emeritus Fellow of Jadavpur University and the Hony. Director of JBNSTS, of which she is a scholar from the first batch in 1960. Here her objective is to make JBNSTS a vibrant and dynamic institute and to motivate, identify and nurture young talented science students and establish the base of Scientific enquiry and culture of tomorrow.

### **DR. KANKAN BHATTACHARYA**

Dr. Kankan Bhattacharyya, is presently the Director and Chair Professor, Department of Physical Chemistry, Indian Association for the Cultivation of Science, Kolkata. He did his Ph. D. from IACS in 1984 and went for Post-doc at Notre Dame University, USA and Columbia University, USA. Prof. Bhattacharyya joined IACS as a faculty and occupied in several positions like Senior lecturer, Reader, Professor and Senior Professors. His current research interest includes Solvation dynamics, Femtosecond Up-conversion, Energy Transfer (FRET), Picosecond single photon counting, Proton/Electron Transfer, Confocal microscope and fluorescence life time imaging, etc.

### **DR. SUSHANTA DATTA GUPTA**

Prof. Susanta Dattagupta is presently the Vice Chancellor of Visva-Bharati University, Santiniketan. He did his B.Sc. (Physics Honours), M.Sc. (Physics) from Calcutta University and Ph.D. from Brookhaven National Laboratory, St. John's University, New York. His distinguished academic career includes the positions such as Lecturer in Physics, Presidency College, Kolkata, Post-Doctoral Fellow, Carnegie-Mellon University, Pittsburgh & Senior Research Associate, University of Alberta, Scientific Officer, Materials Science Laboratory, Indira Gandhi Centre for Atomic Research, Kalpakkam, Reader, School of Physics, University of Hyderabad, Professor and Dean, School of Physical Sciences, JNU, New Delhi, Director, S.N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata, Director, Indian Institute of Science Education and Research (IISER), Kolkata. Dr. Dattagupta is an honorary professor of Jawaharlal Nehru Centre for Advanced Scientific Research and adjunct professor of IISER, Pune. He got several awards and honors including Young Scientist Medal, Indian National Science Academy, Alexander von Humboldt Fellowship, Bibharani Devi Prize of Calcutta University, DAE Raja Ramanna Award of the Jawaharlal Nehru Centre for Advanced Scientific Research, Meghnad Saha Memorial Award of the National Academy of Sciences, Allahabad, C.V. Raman Birth Centenary Award, J. C. Bose Fellowship of the Department of Science & Technology, India, etc. His research interests are Non-equilibrium Statistical Mechanics, Dissipative Quantum Systems, Nanomaterials, Fluctuation Spectroscopy and Quantum Optics.

### **DR. ASHESH NANDY**

Dr. Ashesh Nandy is currently associated with Center for Interdisciplinary Research and Education, Kolkata. He is a member of the Condensed Matter Physics Research Centre, Jadavpur University. He did his B.Sc. and M.Sc. in Physics from Calcutta University and received his Ph.D. from University of California, Santa Barbara, USA. He was a postdoctoral fellow of Syracuse University, U.S.A, Max plank institute, Göttingen, Germany. He was associated with the Computer Division of Lipton India Ltd and IICB, Kolkata, School of Environmental Sc., Jadavpur University as Visiting Scientist. He was a recipient of several scholarships: Earle C Anthony Fellowship from University of California, Max Plank institute fellowship and is a JBNSTS scholar of first batch. His current research interest focuses on bioinformatics.

### **SHRI GANGA S RAUTELA**

Mr G S Rautela, born on February 14, 1954 in a small village of Bageshwar district of Uttarakhand, is currently the Director General of the National Council of Science Museums, the creator of the network of 50 science centres in India. Prior to this he was the Director of Science City, Kolkata and Director of Nehru Science Centre, Mumbai, Project Co-ordinator of Hall of Science, Technology and Energy, New Delhi and Regional Science Centre, Bhopal. After obtaining masters degree in Physics from Kumaun University he did his research work in Science Education at the National Council of Educational Research and Training, New Delhi and thereafter chose to become a science communicator. He joined the National Council of Science Museums, Kolkata in 1979 and worked in various science museums and centres across the country in various capacities. During his career spanning over 35 years in science education and communication, he has contributed to the development of number of science centres in the country, creation of hands-on and minds-on science exhibits, exhibitions and activities and non-formal science education programmes for students, teachers and general public. His area of research has been 'Learning of science in non-formal Setting'. He is associated with number of organisations engaged in enhancing public understanding of science. He is currently engaged in science education research/ literacy programmes and proliferation of non-formal science education initiative of Govt. of India. He has largely devoted his time in improving the quality of science education in schools and colleges through hands on and minds on approach. He is also associated with International Science & Engineering Fair, a programme to promote innovation of young students, since its launch in India in 1998 by Intel.

Shri Rautela also is very active in the museum field at national and International level. He served as chairman of the International Committee on Museum Education and Cultural Action of the International Council of Museums (Paris) and presently the Secretary of ICOM-India Trust. He is also the member of the International programming Committee of the Science Centre World Congress. Shri Rautela is the fellow of the West Bengal Academy of Science and Technology. He is also a member of governing boards of number of educational institutions, science centres and planetariums, science academies in the country. He has published over 55 articles, research papers and monographs on science education and science centre/museum management issues. He is recipient of 'Vidya Bhushan' of the DAV Education Society, Merit Certificate from Indian Society of Lighting Engineers and Science and Technology Excellence Award from the Govt. of Uttarakhand for his work in science communication.

### **DR. PARTHA DEB GHOSH**

Dr. Partha Deb Ghosh is Professor of Botany at the Department of Botany, University of Kalyani, West Bengal and worked in the field of plant genetics and Biotechnology. He has done extensive work on in vitro culture, genetic transformation of plants, molecular markers and supervised research of Masters and Doctoral students. He has published 3 books/ manuals on plant genetics and biotechnological aspects and published more than 270 research papers in different national and international journals. Dr. Ghosh has availed fellowship offered by UGC Indo-Uk exchange programme (1977-78), DST young scientist awards (1984), DBT training programme. He is fellow of Linnean society (London), association of plant tissue culture and biotechnology (India). Dr. Ghosh has awarded INSA gold medal for outstanding contribution of plant tissue culture and mutation research, life time achievement award by DST and honoured by different universities.

#### **DR. INDRANATH SENGUPTA**

Dr. Sengupta is a professor of Mathematics in Jadavpur University and associated with Ramakrishna Mission Vivekananda University, Belur. He has completed his B.Sc. & M.Sc. from Jadavpur University and received his Ph. D. degree from Indian Institute of Science, Bangalore in the year 2001. Dr. Sengupta is a recipient of the BOYSCAST post doctoral fellowship of the DST, Government of India and research fellowship of the University of Valladolid, SPAIN. He was a Post-doctoral Fellow at University of Utah, USA and visiting faculty at University of Missouri, Columbia, USA. Research interests of Dr. Sengupta include Algebra (Commutative Algebra) & Geometry.

#### **DR. RAJAT MAJUMDER**

Dr. Rajat Mazumder is currently Associate Professor, Geological Studies Unit, ISI, Kolkata. He did his B.Sc. in Geology (Hons.) from Burdwan University, M.Sc. in Applied Geology from Allahabad University and Ph. D. from Jadavpur University. Dr. Mazumder was associated with various renowned institutes such as Department of Earth and Environmental Sciences, Munich University, Munich, Germany, Geological Institute, Yokohama National University, Japan and The Institute of Geoscience Research, Department of Applied Geology, Curtin University of Technology, Australia. He occupied several distinguished positions such as Lecturer, Ashutosh College, Kolkata, Assistant Professor, IIT, Roorkee. Dr. Mazumder got several awards and fellowships such as National Merit Scholarship by the Ministry of Education, Government of India, Japan Society for the Promotion of Science (JSPS) Post Doctoral Fellowship, Alexander von Humboldt post-doctoral fellowship by Humboldt Foundation, Germany, etc. His research interests include Clastic Sedimentology, Precambrian Geology.

#### **DR. KALYAN K. MUKHERJEE**

Dr. Kalyan K. Mukherjee is presently Professor, Botany Department, Bose Institute, Kolkata. He did his PhD from University of Calcutta in 1974. His research interests include resource survey analysis of wild gene pool for isolation and characterization of novel chemical compounds and / or useful traits for subsequent introgression into the existing cultivar either through conventional breeding or biotechnological approach are the areas of research, understanding species relationship and the mode of speciation and evolution of chenopodiaceous plants, etc.

#### **DR. ABHIJIT KAR**

Dr. Abhijit Kar received his Bachelors and Masters in Chemistry. He did his PhD in Science (Chemistry) from Jadavpur University. Dr. Kar has carried out his postdoctoral research in different parts of the world and developed very high aptitude towards cutting edge research. He did his Post Doctoral research at South Korea, Switzerland, & visiting scientist at Germany. His current research interest comprises of Application of Nanotechnology for Micro-Electronics, Nanostructured composites and Energy Devices. He has developed expertise on different materials characterization techniques e.g. SEM, TEM, XRD, EPMA & Mechanical Property evaluation of materials. Dr. Kar has published 32 research papers in SCI Journals & contributed in book chapter on electron microscopy. He is reviewer of many International Peer Reviewed Journals. He is also recipient of National Scholarship and CSIR-SRF. He is currently working as Scientific Officer of JBNSTS and looking after different academic and research activities and Laboratory set up of JBNSTS.

#### **DR. SMARAJIT MANNA**

Smarajit Manna did his B.Sc and M.Sc in Physics. Worked as Junior Research Fellow and Senior Research Fellow at Jadavpur University and Delhi University South Campus respectively and received his Ph.D. degree from Jadavpur University. Currently working as Student Advisor at JBNSTS, Kolkata. His research interest includes conduction mechanism through biological membranes and the underlying dynamics. His research interests are Statistical analysis of dynamical systems and Bio-informatics. Dr. Manna has 8 research publications in national and international journals and he is one of the authors of the book chapter "Electrical noise in cells, membranes and neurons in: Understanding Complex Systems", Springer Berlin/ Heidelberg. He is working as Student Advisor of JBNSTS and apart from guiding students he is carrying out different academic and research work.

#### **DR. KAMAL KUMAR BARDHAN**

After a long service of about 26 years, Dr. Kamal Kumar Bardhan retired from Saha Institute of Nuclear Physics, Kolkata as Senior Professor. He did his B.Sc. in Physics from Calcutta University, M.Sc. in Physics from Delhi University and Ph.D. from Carnegie-Mellon University, USA. Then he worked as a post doctoral fellow at Simon Fraser University, Canada. Dr. Bardhan visited several places for delivering lectures and attending meetings and conferences such as Russia, Taipei, Italy, France and Beijing. He got National Merit Scholarship and also received scholarship for research by Stichtung Fund (Schlumberger). His research interests include Nonlinear Transport (including breakdown) in disordered systems, Low-frequency Noise in conductors, Soft Matter Physics, Material Processes and Critical Phenomena. Dr. Bardhan has published about 36 papers in International Journals.

#### **DR. UTPAL KR. DE**

Dr. U. K. De is basically a Physicist turned Environmentalist cum Atmospheric Scientist. He passed M. Sc. in Pure Physics from Calcutta University in 1965. He got his D. Sc degree on General Theory of Relativity and Cosmology in 1976 from the same University. For his professional career, he joined Kalyani University as a Lecturer in Physics in April, 1966 and came to Jadavpur University in September, 1968 on a similar capacity. He became a Reader and then Professor in the Physics Department of Jadavpur University. In 1998, he went over to the School of Environmental Studies of the same University as Professor. He retired from Jadavpur University on August 31, 2009. Thereafter he obtained Emeritus Fellowship from AICTE, Govt. of India and his association with Jadavpur University still continues. At the moment, he is deeply involved in studying the pre-monsoon and monsoon weather, role of aerosols in the atmosphere and CO<sub>2</sub> transport modeling.

### **Day to Day Program**

#### **Day 1 : Tuesday, March 20, 2012**

- 09:30 a.m. – 10:00 a.m. Registration  
10:00 a.m. – 11:00 a.m. Welcome Address by the Director, JBNSTS and Orientation  
11:00 a.m. – 12:00 noon **CD Show**  
12:00 noon – 01:00 p.m. **Inaugural Lecture on "Education: The Legacy of Rabindranath"**  
**Dr. Sushanta Dattagupta**, Professor and Vice Chancellor  
Visva-Bharati University, Santiniketan, Birbhum  
01:00 p.m. – 02:00 p.m. Lunch & Interaction  
02:00 p.m. – 03:30 p.m. **"Team Spirit in Science"**  
**Dr. Ashesh Nandy**, Center for Interdisciplinary Research and Education, Kolkata  
03:30 p.m. – 05:00 p.m. **"Creativity & Innovation"**  
**Shri Ganga S Rautela**, Director General, National Council of Science Museums, Kolkata

#### **Day 2 : Wednesday, March 21, 2012**

- 09:30 a.m. – 10:00 a.m. Registration (**Submission of attested copy of Xth Standard Board Examination Mark Sheet**)  
10:00 a.m. – 01:00 p.m. **"DNA fingerprinting and its application in medical science, forensic science and crop improvement"**  
**Dr. Partha Deb Ghosh**, Professor, Department of Botany, Kalyani University, Kalyani  
01:00 p.m. – 02:00 p.m. Lunch & Interaction  
02:00 p.m. – 03:30 p.m. **"The Chinese Remainder Theorem"**  
**Dr. Indranath Sengupta**, Professor, Department of Mathematics, Jadavpur University, Kolkata  
03:30 p.m. – 05:00 p.m. **"Ancient Tide and Earthquake: Evidence from Jharkhand, India"**  
**Dr. Rajat Majumder**, Associate Professor, Geological Studies Unit, Indian Statistical Institute, Kolkata

#### **Day 3 : Thursday, March 22, 2012**

- 09:30 a.m. – 10:00 a.m. Registration  
10:00 a.m. – 11:30 a.m. **Motivational Lecture**  
**Dr. Kalyan K. Mukherjee**, Professor, Department of Botany, Bose Institute, Kolkata  
11:30 a.m. – 01:00 p.m. **"Single Molecule Spectroscopy"**  
**Dr. Kankan Bhattacharya**, Professor and Director,  
Indian Association for the Cultivation of Science, Kolkata  
01:00 p.m. – 02:00 p.m. Lunch & Interaction  
02:00 p.m. – 05:00 p.m. **Hands-on Experiments at JBNSTS Laboratory**  
**Dr. Abhijit Kar**, Scientific Officer, JBNSTS & **Dr. Smarajit Manna**, Student Advisor, JBNSTS

#### **Day 4 : Friday, March 23, 2012**

- 09:30 a.m. – 09:45 a.m. Registration at Science City, Kolkata  
10:00 a.m. – 01:00 p.m. **Educational Visit to Science City**  
01:00 p.m. – 02:00 p.m. Lunch & Interaction (**Submission of Travel Bill**)  
02:00 p.m. – 04:30 p.m. **Continuation of Educational Visit to Science City**

#### **Day 5 : Saturday, March 24, 2012**

- 09:30 a.m. – 10:00 a.m. Registration  
10:00 a.m. – 11:30 a.m. **"Connectivity in Nature"**  
**Dr. Kamal Kr. Bardhan**, Senior Professor, Experimental Condensed Matter Physics Division  
Saha Institute of nuclear Physics, Kolkata  
11:30 a.m. – 01:00 p.m. **"Weather and Climate"**  
**Dr. Utpal Kr. De**, Professor, School of Environmental Studies, Jadavpur University, Kolkata  
01:00 p.m. – 02:00 p.m. Lunch & Interaction (**Submission of Information cum Feedback sheet during afternoon  
Registration and reimbursement of Travel Bill**)  
02:00 p.m. – 04:00 p.m. **Project Presentation by the Participants**

"WHY SCIENCE?"

A DST-JBNSTS Science Camp

## "WHY SCIENCE?"

(20<sup>th</sup> – 24<sup>th</sup> March, 2012) JB Centre of Excellence for Student-Scientists,  
1300, Rajdanga Main Road, Kasba, Kolkata 700 107

Paste  
Stamp-size  
Photograph  
here

### Student's information sheet

Name of the student (in block letters):

Permanent address:

Contact Number: Landline -

Mobile -

E-mail (mandatory):

School's name (in block letters) & Address with pin code, phone no & email-id:

Percentage of marks obtained in the 10<sup>th</sup> standard Board examination held in 2011:

Percentage of marks obtained in science subjects:

Favorite subject:

Who is your role model in science?

Would you like to pursue a career in science?

What is your expectation from a science camp?

स जीवति मनो यस्य मननेन हि जीवति

Have you heard about JBNSTS before the camp? How?

\_\_\_\_\_  
Signature of Student

"WHY SCIENCE?"

A DST-JBNSTS Science Camp

## **"WHY SCIENCE?"**

(20<sup>th</sup> – 24<sup>th</sup> March, 2012) JB Centre of Excellence for Student-Scientists,  
1300, Rajdanga Main Road, Kasba, Kolkata 700 107

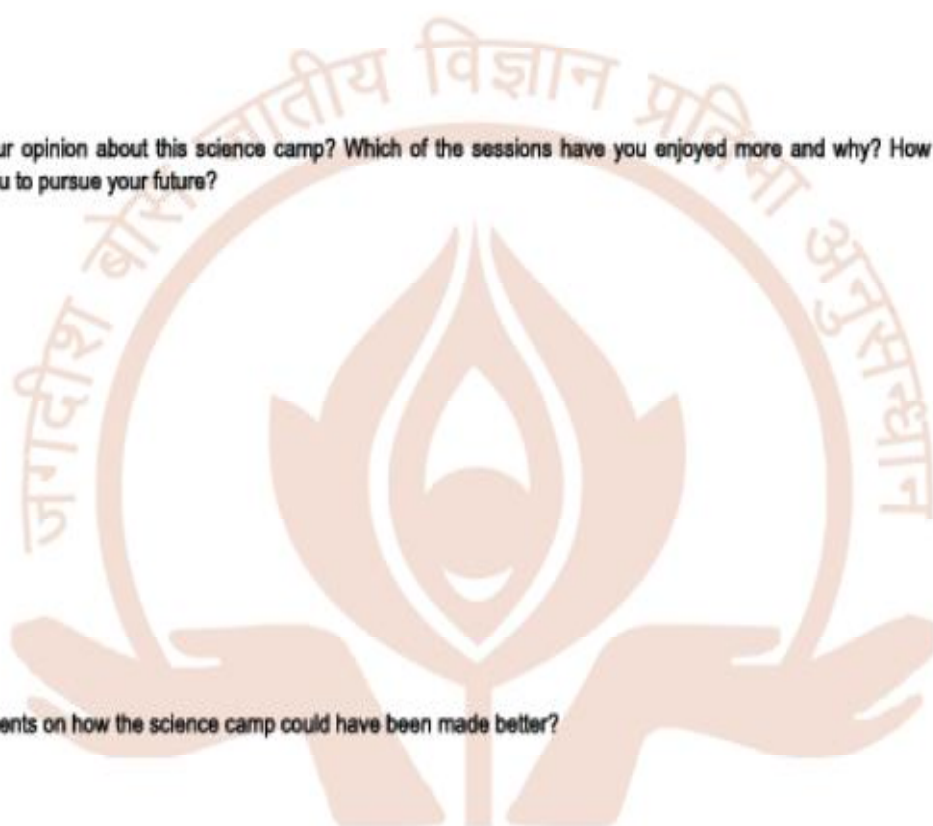
### Feedback sheet

Name of the student (in block letters):

School's name (in block letters) & address with pin code, phone no. & email-id:

What is your opinion about this science camp? Which of the sessions have you enjoyed more and why? How does it motivate you to pursue your future?

Your comments on how the science camp could have been made better?



स जीवति मनो यस्य मननेन हि जीवति

\_\_\_\_\_  
Signature of Student