ACTIVITY REPORT ON
NATIONAL SCIENCE DAY CELEBRATIONS
2008-2009

Theme:
“UNDERSTANDING PLANET EARTH”
&
“Expanding Horizons of Science”

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Submitted to:
NATIONAL COUNCIL FOR
SCIENCE AND TECHNOLOGY COMMUNICATION (NCSTC)
DEPARTMENT OF SCIENCE AND TECHNOLOGY
GOVERNMENT OF INDIA
NEW DELHI

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DETAILED REPORT FOR NATIONAL SCIENCE DAY – 2008-2009

Theme:
“UNDERSTANDING PLANET EARTH PROGRAMMES”
&
“Expanding Horizons of Science”

Organization:

The Karnataka State Council for Science and Technology (KSCST) was established in 1975 to play a catalytic role in promoting the use of Science and Technology in the development process of the State. In order to improve the quality of education in the State, particularly in rural areas, it was felt necessary to introduce some effective programmes in schools and colleges. This is to help in creating science awareness in students and to improve their career. One such activity is ‘Student Scientist Interaction Programme’ (SSIP) in which students from higher secondary schools / colleges and scientists are brought together wherein students can directly ask questions to scientists and clarify their doubts and also improve their understanding. Many such interaction programmes have been conducted at various schools all over Karnataka. KSCST has compiled many of the questions raised during these interaction programmes and has brought out these question-answers in the form of a booklet. Also, KSCST is celebrating National Science Day on 28th February every year.

Karnataka State Council for Science and Technology has taken many science popularization activities and, of these activities National Science Day celebrations is a major event.

For National Science 2009, Karnataka State Council for Science and Technology organized many competitions for Primary / High School students from Bangalore and Bangalore Rural District.
On the following objectives, KSCST has organized the National Science Day activities for the year 2009 in the State of Karnataka to -

- Promote active involvement of students and teachers in science related activity.

- Encourage students to ask questions and to get doubts cleared in different areas of science and promote their effective participation.

- Enable students to know about the latest developments in the fields of science and technology.

- Enhance interaction between scientists and talented students.

- Encourage scientific thinking and promote better understanding of concepts of pure science among students and teachers of high school.

- Hold allied popular science activities under NSD 2008 & 2009 themes, through workshops, Scientists Students Interaction (SSIP) programmes and various other science competitions.

- Convince high school students about high intellectual value of science and to develop science culture.

**Activities during 2008-2009:**

During the year 2008-2009, the following activities were undertaken

a) **Syllabus Orientation for High School Teachers on “Understanding Planet Earth themes”**

Karnataka State Council for Science and Technology organized Syllabus Orientation and Training programme for High School Teachers of Bangalore Bruhath Mahanager Palika (BBMP) Schools of Bangalore and Government High Schools of Nelamangala taluk on Understanding Planet Earth themes.
The training programmes were conducted for high school teachers and the details are as below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>Venue</th>
<th>No. of Teachers benefited</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th and 9th September</td>
<td>UPE themes &amp; Physics</td>
<td>Block Resource Centre, Nelamangala</td>
<td>39</td>
</tr>
<tr>
<td>18th and 19th November</td>
<td>UPE themes &amp; Physics</td>
<td>Indian Institute of Science</td>
<td>51</td>
</tr>
<tr>
<td>27th November and</td>
<td>UPE themes &amp; Mathematics</td>
<td>Indian Institute of Science</td>
<td>41</td>
</tr>
<tr>
<td>5th December 2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th and 7th January</td>
<td>UPE themes &amp; Mathematics</td>
<td>Block Resource Centre, Nelamangala</td>
<td>50</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 and 30th January</td>
<td>UPE themes &amp; Chemistry</td>
<td>Block Resource Centre, Nelamangala</td>
<td>34 teachers and 35 students</td>
</tr>
<tr>
<td>2009</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

b) Workshop for High School Students on UPE themes and Origami:

One day workshops for high school students of Bhruhath Bangalore Mahanagara Palika (BBMP) were conducted at various high schools on “Understanding Planet Earth themes” and “Importance of Mathematics teaching through Origami”. During the workshops, the experts highlighted the Conservation of Planet Earth issues and gave hands on training in folding paper to know various mathematical models including various design of animal models. The details workshops conducted are as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>BBMP High School</th>
<th>No. of students benefited</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th October 2008</td>
<td>Mathikere</td>
<td>57</td>
</tr>
<tr>
<td>30th October 2008</td>
<td>Magadi Road</td>
<td>95</td>
</tr>
<tr>
<td>31st October 2008</td>
<td>Vidyaranyanagar</td>
<td>43</td>
</tr>
<tr>
<td>3rd November 2008</td>
<td>Ganganagar</td>
<td>68</td>
</tr>
<tr>
<td>4th November 2008</td>
<td>Jogupalya</td>
<td>84</td>
</tr>
<tr>
<td>7th November 2008</td>
<td>Tasker Town</td>
<td>48</td>
</tr>
<tr>
<td>25th November 2008</td>
<td>Cottonpet</td>
<td>54</td>
</tr>
<tr>
<td>26th November 2008</td>
<td>Srirampuram</td>
<td>80</td>
</tr>
<tr>
<td>27th November 2008</td>
<td>Gandhinagar</td>
<td>32</td>
</tr>
<tr>
<td>4th December 2008</td>
<td>Srirampur Pitts Colony</td>
<td>36</td>
</tr>
</tbody>
</table>
c) Essay Competition and Poster Competition

KSCST conducted essay and poster competitions for 30 Bruhat Bangalore Mahanagara Palika High Schools and Government Primary, Higher Primary and High Schools in Bangalore. The theme of the competition was “Understanding Planet Earth” and “Expanding Horizons of Science”. The topics for essay competition were based on these themes, which are as follows:

- Water as wealth
- Soil erosion and increasing salinity
- Urban environment problem
- Global warming
- Natural and man made threats
- Alternative sources of energy
- Natural disasters
- Waste generation and management
- Energy saving
- Wildlife protection

From each of the High schools, after due evaluation, the best essays were selected for first and second prizes. In all, 60 and 30 students were selected for awards in essay and poster competition respectively.

d) On-the-Spot Painting Competition:

On-the-Spot Painting Competition was conducted for two age groups – Higher Primary School (5th standard to 7th standard) and High School (8th
standard to 10th standard). The event was organized at Nelamangala Town in Bangalore Rural District on 7th February 2009 and at Indian Institute of Science Campus on 14th February 2009. 320 students from various primary and high schools from Nelmangala taluk and 385 students from Bangalore city were participated in the event. The theme and topics were same as those of other competitions. The paintings were evaluated by experts and a total of 33 paintings were selected for first, second, third and consolation prizes in each group.

e) Science Quiz Programme for High School Students:
Council and Tata Memorial Club of Indian Institute of Science jointly conducted a science quiz for high school students of February 28th, 2009 at Satish Dhawan Auditorium, IIsc. About 150 students from different high schools from Bangalore participate in this quiz programme.

f) Celebration of National Science Day - 27th February 2009

i) Popular Science Lecture programme

ii) Celebration of NSD and Prize distribution

National Science Day Celebrations – 2009 was organized on 27th February 2009 at J. N. Tata Auditorium, Indian Institute of Science, Bangalore. Over 1100 students and accompanying teachers, from various BBMP high schools and other local high schools from Nelamangala taluk and Bangalore participated in the programme. These students included prize winners from essay, poster and on-the-spot painting competitions held earlier. An exhibition of all prize winning posters and paintings had been organized in the foyer of the auditorium.

In the morning session, the National Science Day Celebrations were inaugurated by Prof. Siraj Hasan, Director, Indian Institute of Astrophysics, Bangalore and he gave a talk on “the origin of Sun”. Prof. M. K. Surappa, Secretary, Karnataka State Council for Science and Technology presided over the function. Mr. A. R. Shiva Kumar, Executive Secretary, KSCST welcomed the gathering. Dr. S. G. S. Swamy, Fellow, KSCST proposed vote of thanks.
As a part of the programme three popular science lectures were organized.

i) “Environmental Conservation and Management” by Sri. Suresh Heblikar, Environmentalist and Film Actor.

ii) “Chandrayana” by Dr. S. K. Shiva Kumar, Director, ISTRAC, ISRO, Bangalore

iii) “Light and Raman effect” by Prof. S. V. Subramanyam, Department of Physics, Indian Institute of Science, Bangalore.

National Science Day Celebrations concluded with the Valedictory and Prize Distribution functions. Prof. M. K. Surappa, Secretary, KSCST and Prof. S. V. Subramanyam, Department of Physics, Indian Institute of Science KSCST, were chief guests of the function. Mr. A. R. Shivakumar, Executive Secretary, KSCST, welcomed the guests and gave an introduction about the activities of KSCST, with special reference to National Science Day Celebrations which KSCST has been organizing since many years.

The prizes for all the three competitions – essay, poster and on-the-spot – were distributed to students by the dignitaries on the dias. Dr. S. G. S. Swamy, Fellow, KSCST proposed the vote of thanks.
Students registering for On-the-spot painting competition

Venue of On-the-spot painting competition.
Students registering for On-the-spot painting competition

Prof. M. K. Surappa, Secretary, KSCST inaugurating On-the-spot painting competition
A view of On-the-spot painting competition

Inaugural function of National Science Day – 2009 on 27th February 2009
Inaugural function of National Science Day – 2009 on 27th February 2009
(L to R : Mr. A. R. Shivakumar, Prof. M. K. Surappa, Prof. Siraj Hasan and Dr. SGS Swamy)

Prof. Siraj Hasan, Director, Indian Institute of Astrophysics, Bangalore inaugurating the National Science Day 2009 function.
Student receiving the prize from Prof. M. K. Surappa, Secretary, KSCST

Student receiving the prize from Prof. M. K. Surappa, Secretary, KSCST
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Student receiving the prize from Mr. A. R. Shivakumar, Executive Secretary, KSCST
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Student receiving the prize from Prof. S. V. Subramanyam, Department of Physics, Indian Institute of Science
Student receiving the prize from Prof. S. V. Subramanyam, Department of Physics, Indian Institute of Science

Student receiving the prize from Prof. S. V. Subramanyam, Department of Physics, Indian Institute of Science
A view of Student Participants of National Science Day 2009 at J. N. Tata Auditorium, Indian Institute of Science
Prof. Siraj Hasan, Director, Indian Institute of Astrophysics and Prof. M. K. Surappa, Secretary, KSCST interacting with the student participants.
Government High School Teacher participants in “Planet Earth” workshop held at Nelamangala, Bangalore Rural district
Prof. M. Arun Umarji, delivering a technical talk in UPE workshop at Nelamangala, Bangalore Rural District.

Prof. M. Arun Umarji, demonstrating properties of Solid Carbon-Dioxide (Dry Ice) in UPE workshop at Nelamangala, Bangalore Rural District.
Dr. K. R. Prabhu, Department of Organic Chemistry, Indian Institute of Science delivering a technical talk in UPE workshop at Nelamangala, Bangalore Rural District

Dr. K. R. Prabhu, Department of Organic Chemistry, Indian Institute of Science interacting with a teacher participant in UPE workshop at Nelamangala, Bangalore Rural dt.
BBMP High School Teacher participants in “Planet Earth” workshop held at Central Lecture Hall Complex, Indian Institute of Science

Dr. K. P. Ramesh, Department of Physics, Indian Institute of Science delivering a lecture in “Planet Earth” workshop held at Central Lecture Hall Complex, Indian Institute of Science
Dr. C. Shivakumara, Solid State Chemistry Unit, Indian Institute of Science demonstrating experiments to teaching community during UPE Workshop
A view of On-the-spot painting competition at Nelamangala, Bangalore Rural District

A view of On-the-spot painting competition at Nelamangala, Bangalore Rural District
Mr. V. S. S. Shastry, National Expert, Origami demonstrating the principles of Mathematics through Origami at BBMP High School, Magadi Road, Bangalore

A view of student participants in Origami workshop at BBMP High School, Magadi Road, Bangalore
Prof. M. K. Surappa delivering inaugural address at Science Quiz Programme at Satish Dhawan Auditorium, Indian Institute of Science, on 28th February 2009

Students receiving Rolling Shield from Prof. N. Balakrishnan, Associate Director, Indian Institute of Science.
A view of students at Science Quiz Programme at Satish Dhawan Auditorium, Indian Institute of Science.