

CBSE REGIONAL
SCIENCE EXHIBITION
2019-20

THEME:

**“Science & Technology
for Sustainable Develop-
ment with a Thrust on
Water Conservation”**

Sub Themes

**Sustainable Agricultural
Practices.**

Cleanliness & Health

Resource Management

Industrial Development

**Future Transport &
Communication**

**Educational Games and
Mathematical Modelling**

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FROM THE PRINCIPAL'S DESK

Volume V Issue IV

“Once you have an innovation culture, even those who are not scientists or engineers - poets, actors, journalists - they, as communities, embrace the meaning of what it is to be scientifically literate. They embrace the concept of an innovation culture. They vote in ways that promote it. They don't fight science and they don't fight technology.”

Neil deGrasse Tyson

One of the primary objectives of learning Science is to develop scientific temperament among learners. Science learning expands the scope of curiosity, develops inquiring minds, enhances skills like problem solving and argumentation as well as encourages critical analysis and evaluation of scientific evidence. Learning of Science helps appreciate the benefits and limitations of scientific technologies and applications imposed by social, economical, political, environmental, cultural and ethical factors in the global scenario. Deep learning of Science also develops in the learners core human values and sensitivity towards their immediate and extended environments.

CBSE has been actively involved in planning various initiatives for learners' to invent , innovate and create. CBSE Regional and National Level Science Exhibition is one such important initiative in this direction. The underlying aim of this exhibition is to let the learners work on models that can be employed to solve real life problems using sustainable and economical technologies. It has been a matter of great pride that Bal Bharati Public School , Rohini hosted the prestigious CBSE Science Exhibition on 22 & 23 November 2019. The extraordinary display of 118 exhibits from 88 schools across Delhi marks this event as a glorious learning endeavour. The smoothly conducted event saw an overwhelmingly enthusiastic participation of Science enthusiasts who presented a variety of utility models related to the assigned themes using eco-friendly, locally available & economically viable materials. Most of the models were also based on the use of Smart Technologies. The respected jury comprising of experts from the field of Science and Technology highly appreciated the efforts of the participants and the school for this remarkable event.

Today's innovation is tomorrow's solution. I express my heartfelt gratitude to CBSE for giving us this opportunity to steer Science Education into a more futuristic realm to nurture a more future ready generation.

**GEETA GANGWANI
(Principal)**



INAUGURATION CEREMONY



The ceremonial lamp was lit and the illustrious judges were welcomed by the school Principal, Ms. Geeta Gangwani in the Inaugural Ceremony. The judges included scientists, professors and pioneers from field of science namely, Dr. Geetha Suryakumar, Scientist E, DIPAS, Ministry of Defence; Mr. Sanjeev Gupta, Executive Director, Engineering Projects India Pvt Ltd; Mr. Arun Gupta, Chief Manager, Siemens; Mr. Manish Kumar, Asst Professor, Netaji Subhash Institute of Technology; Dr. Ranganath M. Singari, Head, Department of Design, DTU and Dr. Kanika Malik, Principal Scientist, CSIR. They assessed 118 exhibits from 88 schools.



“Equipped with his five senses, Man explores the Universe around him and calls the adventure Science. Edwin Powell Hubble

KNOW THY JUDGES

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Prof. Ranganath M. Singari



Head, Department of Design, Professor, Mechanical, Production & Industrial Engineering, Delhi Technological University.

Ph.D in Production Engineering, Dr Singari's specialization includes Production Engineering, CAD/CAM/CIM, Product Development & Design, Industrial Design & Innovation. He has to his credit the setting up of Research Centre, CAPIER, DTU, Centre of Excellence.

Dr. Geetha Suryakumar

Scientist E, Divisional Head, Department of Biochemistry Defence Institute of Physiology and Allied Sciences (DIPAS), Ministry of Defence.

Ph.D in Biochemistry and MBA (HR) from Sikkim Manipal University, Dr. Geetha is a proud recipient of many awards recent being the National Science Day Award for 2017, from Defence Research and Development Organization (DRDO), Ministry of Defence. Her research interests include Evaluation of biochemical markers responsible for tolerance/susceptibility to stressful conditions, Role of ER stress modulators in enhancing survival under hypoxic stress to name a few.



Dr. Kanika Malik



Principal Scientist, Editor, Journal of Intellectual Property Rights (JIPR), CSIR-National Institute of Science Communication and Information Resources (NISCAIR)

Ph. D in Biotechnology, Dr. Malik has a lot of awards in her galore, the recent being Science Communication Award in S & T. She is actively engaged in activities related to education and dissemination of IPR. Also, Actively involved in the upliftment of science & technology in the country through publication of two bimonthly journals IJEMS & JIPR in the field of Engineering and Materials Sciences and Intellectual Property Rights.

“science is a way of thinking much more than it is a body of knowledge”. Carl Sagan

KNOW THY JUDGES

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Mr. Sanjeev Gupta



Executive Director in Engineering Projects India Ltd.

Mechanical Engineer from DCE and MBA in Project Management, he has 36 years of experience in Air India, HUDCO, Centre for Railway Information systems, IRCON international Ltd, Indian Railway Catering and Tourism Corporation. He was Director Technical, a Board level post in Hindustan Prefab Ltd, under Ministry of housing and Urban Affairs.

Mr. Arun Gupta

Currently associated with Siemens Engineering - power plant sector as a team leader.

Mechanical Engineer from DCE, he has extensive experience in the field of engineering design. He is and has been instrumental in executing key projects across various geographies such as USA, UK, Germany & South-East Asia. He has two patents in the field of steam turbine valves. He has been associated with various NGOs working in the area of empowering women, children education, etc. He is also one of the youngest executive council member of DCE alumni association.



Prof. Manish Kumar



Assistant Professor, Manufacturing Processes and Automation Engineering (MPAE) Division, Netaji Subhas University of Technology.

Currently pursuing Ph. D from IIT Delhi, Mr. Kumar has completed his MBA from IIT Delhi and BE from DCE. He has vast experience in the field of Automated Machines and has presented papers on supermileage vehicle. He has a patent in his name and undertaken numerous projects in different fields.

SUSTAINABLE AGRICULTURAL PRACTICES



INDUSTRIAL DEVELOPMENT



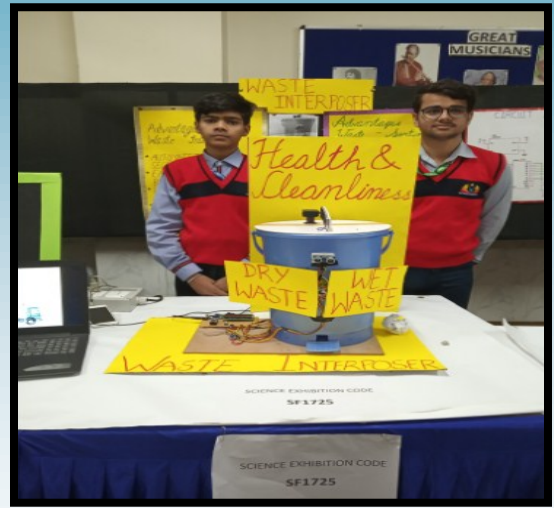
FUTURE TRANSPORT AND COMMUNICATION



Scientists have become the bearers of the torch of discovery in our quest for knowledge". Stephen Hawking

“Science is the acceptance of what works and the rejection of what does not”. That needs more courage than we might think”. Jacob Bronowski

CLEANLINESS AND HEALTH



RESOURCE MANAGEMENT



EDUCATIONAL GAMES AND MATHEMATICAL MODELLING

Every great advance in science has issued from a new audacity of imagination”.

John Dewey



“Science a beautiful gift to humanity; we should not distort it”. A.P.J. Abdul Kalam

After going through all the exhibitions, I was quite impressed by the analytical aptitude of the children. Also, I am quite confident that under the leadership of Principal Ms. Geeta Gangwani, BBPS Rohini will be in top five because the quality of education is at par with international standards. I am sure that it will grow into the very best in the coming years.

Prof. Manish Kumar (Judge)

I am fortunate and thankful to school to invite me to judge the various exhibits and projects in CBSE Science Exhibition. I really admire the imagination power of younger generation. Their imagination far exceeds ours and they have solutions for many problems. The host school BBPS Rohini is an example of success of Swachh Bharat because the school is very clean, cosy and student friendly. I wish all the students the very best.

Mr. Sanjeev Gupta (Judge)

I saw 38 demonstrations. Many students had done work on scarcity of water and its solutions. They were impressive. There were also some mobile applications. I felt that the kind of projects displayed here were basic representation of what we do in our engineering institutions. I am very impressed by the planning and organisation of the event by BBPS Rohini. The most exciting was to visit ATL Tinkering Lab wherein innovative ideas and practices are being carried forward.

Dr. Ranganath M. Singari (Judge)

I have had previous experience of attending and judging Science Exhibition earlier as well. But when I entered BBPS Rohini, the host school, I was very impressed by the kind of arrangement, the zeal of the teachers and the students. It was commendable. All the very best.

Dr. Kanika Malik (Judge)

All 41 exhibits that I visited were very innovative. In future, if any student wants to pursue the idea, they can contact and reach me. I can connect with people who can take it further. Thanks to BBPS Rohini school for such an enriching experience.

Mr. Arun Gupta (Judge)

I congratulate CBSE on organising an event that inculcates scientific attitude in students and Ms. Geeta Gangwani, Principal and her team for working tirelessly and making the event a grand success.

Dr. Geetha Suryakumar (Judge)

Wonderful experience. Everything was well planned and organized. Timely completion made the event very smooth. With God's grace we made it again, one of our model has been selected for Nationals. Thanks for hosting the event and providing all kind of support.

Ms. Shruti from Srijan School, Model Town

It was a well organised and well planned event. Good arrangements for teachers refreshment and relaxation. It was a good learning experience.

Taruna Kapoor, Teacher G. D. Goenka, Paschim Vihar

“There are in fact two things, science and opinion; the former begets knowledge, the latter ignorance”. Hippocrates

VALEDICTORY CEREMONY



Two days of CBSE Regional Level Science Exhibition, 2019-20 came to an end with Valedictory Ceremony on 23rd November, 2019. The special Guest on the occasion was Dr. Sweta Singh, Joint Secretary, Academics, CBSE. The ceremony began with Prayer and felicitation of Dr. Singh with a planter and a stole. The students presented a Dance Performance titled, “Hawa Ka Dard”, depicting the pain of polluted air. It was followed by Panel Discussion which was themed, "Ideation to Reality- the roadmap ahead". The judges shared their thoughts and thereafter, the questions, queries and concerns of the students were duly addressed by the panel members. This was followed by Prize Distribution in which shortlisted exhibits were awarded with certificates by the judges. Dr. Sweta Singh inspired the winners to transform their innovative ideas into real world solutions. The Principal of the school, Ms. Geeta Gangwani, congratulated the winners and thanked the illustrious judges and Dr. Sweta Singh. The programme ended with National Anthem.



DIFFERENT SHADES OF SCIENCE EXHIBITION.....

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THE HANDS BEHIND THE HELM



CORE COMMITTEE

Ms. Bandhana Sharma
(VICE PRINCIPAL)

Mr. Praveen Kapoor
(PGT PHYSICS)

Ms. Shefali Gupta
(PGT COMPUTER SCIENCE)

Ms. Sapna Makan
(TGT MATHS)

Ms. Varsha Krishnan
(TGT SCIENCE)

THE PROUD WINNERS OF BBPS ROHINI



“The scientist is not a person who gives the right answers, he’s one who asks the right questions”. Claude Levi-Strauss