



Department of Science and Technology (DST)

**PROJECT: Should science popularization be integral part of
high school curriculum in India**

(An Inter School Debate Competition)

PROJECT COMPLETION REPORT

**IMPLEMENTED BY: MILLENNIUM INDIA EDUCATION
FOUNDATION**

(13 COMMUNITY CENTRE, EAST OF KAILASH, NEW DELHI-65)

(www.mief.in)

**CATALYSED & SUPPORTED BY: NCSTC DIVISION, DEPT.OF
SCIENCE & TECHNOLOGY, GOVT.OF INDIA**

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SUMMARRISED REPORT

Under this project Inter school debate competitions were held as per the plan sanctioned by the NCSTC Division Dept. of Science & Technology Govt. of India. The competitions were started in phased manner firstly at district levels in all the 9 districts of Delhi state and one district of NCR which was Gautam Budh Nagar Noida.

The main objectives included

- i. To help students to develop rigorous and critical thinking abilities towards pursuing science career after leaving school.
- ii. To sensitize the school management ,educationists, policy makers to inculcate an attitude of science popularization related activities in schools.
- iii. To sensitize school children importance of science popularization in day to day life.

158 schools took part in the district level competitions during the period April 2015—October 2015 .Each participating school was represented by 2 students (One to speak for the motion and another against the motion).The interjectors were however from the host schools. There was one interjector for each team . Each interjector was allowed to ask only one question from speaker. L

An approximate total of 10000 students witnessed the district level debate competitions and **23** teams took part.

All the competitions were judged by 3 judges out of team of 5 judges who were selected to be on the panel based on their experience in science communication.

As per the format of the competitions, two teams(1st & 2nd) from each district level competition moved to 2nd round (inter district level competition). A total of 23 teams competed with each other in this round . the 2nd round was held on 26/11/2016.at DPS International School Saket. Here also interjectors and audience of about 200 students were provided by the host sc.

In this round, first 6 teams moved to final round to choose Delhi state level debate champion team. The final round was held at DAV School shrestha Vihar Delhi on 30th November 2015. The debate was judged by 3 judges .

Dr A B P Mishra Scientist incharge of project from NCSTC Dept.of Science & Tech also graced the final round of competitions as our Guests of Honour . These guests besides listening to the finalists also distributed certificates of participation to all the participants and trophies to winners.

The winners and participants at all district level and inter district levels competitions were distributed certificates of participation and winners(1st,2nd,3rd and 4th consolation position) were given prizes and trophies .

The impact study of the debate competition was done by listening to the speeches of finalists 6 teams by the experts after the conclusion of the project and view points of students (both for as well as against the motion) was critically analysed and based on these critical analysis ,following take home messages for consideration of the NCSTC department have been enlisted :

The observations from the speeches of finalist students who spoke for the motion and against the motion is summerised as under:

Key observations taken from the speeches of the finalist students who spoke for the for the Motion:

- 1 Move away from discussions on caste, religious fanaticism into discussions about science an cancer research. Science will allow youngsters to be logical and practical individuals.
- 2 Think why China/ other large nations are producing so much more innovation and research compared to India
- 3 Building a generation of young students with a rational approach, being critical thinkers to help eradicate social evils (e.g. casteism, gender inequality etc.) in the society to change focus towards science and innovation for betterment of society
- 4 Science popularization will help create aware minds- which is basis of our education
- 5 Global warming, pollution etc. are harming us as a society and there's one subject that will enable students to understand and be aware of these issues
- 6 Many inventions and discoveries in the world have been made by high school students and young students inspired by science and science teachers, focusing on practical knowledge. This can be pushed even more with focus on science popularization by motivating students.
- 7 Society facing strong challenges as a whole and India needs to develop and bring science to children/ students and fill their curiosity with awareness and a scientific approach will help address social evils
- 8 Part of India's constitution to encourage scientific temperament, but large sections of society is superstitious and believes in non-scientific thoughts and practices (social evils)
- 9 Unique quality scientific program can encourage interactive learning approach and will help pave a new path. High scientific awareness rate is good for country's growth and emphasize scientific ability right from high school age. This will be an investment in the future

- 10 Science and science popularization are very different and there's a bias that only people with scientific ambitions should be exposed to science popularization
- 11 Scientists are manufacturers while everyone else is a science consumer, and we need science popularization to ensure we're aware of what we're consuming.
- 12 This subject will prepare everyone for better decision making, better policy making and a stronger future
- 13 Startling lack of scientific temper in people which is making us perform far lesser on the world stage
- 14 People are adopting superstitions, deep rooted prejudices, preoccupied by petty issues, and this can be remedied by providing scientific temperament to younger generation and students
- 15 Science can do wonders for the nation. Commitment to scientific temper is a part of India's constitution.

Key observations taken from the speeches of the finalist students who spoke against the Motion:

- 1 World of social media and information overload, so it's not necessarily dependent on curriculum. The science knowledge is already available freely
- 2 Additional curriculum will add a burden to students and it already exists. The key to growth will be in other specializations like art, economics etc. which is helping the country progress. Science knowledge is already present in school education.
- 3 Not effective because science popularization is not necessary for critical thinking and inventors who've made changes in the world are not necessarily science students
- 4 Curriculum in CBSE and ICSE already includes these topics and thus science popularization will not be effective

- 5 Science in itself isn't enough and it will need other fields, like media, journalists, investors etc. will be needed to have a real impact that science promise
- 6 Students interested in different fields other than science do not need a new burden. They will be limited by being forced to learn science only
- 7 Respect needs of each individual and there are plenty resources for those interested in science. For those who are not interested in science, this will be a burden
- 8 Self-taught individuals with the presence of multi media learning opportunities in today's world can succeed like many before without the need of a specialized curriculum.
- 9 One size fits all approach will not help provide the best results and will not be justifiable in this era of technology and reason.
- 10 Reality of India that it's a large agrarian region and manual labor. They do not have much to do with science in their everyday life, and therefore imposing science popularization is not effective
- 11 Without thrusting science, we need to encourage students to work on subjects of their choice.
- 12 What should be done? How should be done? And where's the time to do it?
- 13 Science popularization is a matter of choice. Knowledge under compulsion is not effective and would result in a losing battle
- 14 This will not solve the uninspiring text book teaching currently present in the education system

Conclusion/Recommendations to the NCSTC Div.DST: Based on these observations ,our conclusion/recommendations for the department is as under:

- 1) Students recommended that science popularization can encourage the development of interactive learning which would be good for the growth of the country and an investment for the future
- 2) Science popularization would lead to better decisions arrived at through reasoning and a scientific approach instead of relying on superstitions that are prevalent in the society.
- 3) However, the students also cautioned that a one size fits all approach will be justifiable and introduction of science popularization should happen in tandem with other important courses like arts and humanities and should be a chosen by the students depending on their interests.

It is expected that the NCSTC would adopt these recommendations to further enhance their mission of increasing its outreach to all segments of society and help motivate these people to develop scientific attitude and understanding to live health and prosperous life.

Annexure 1

Winner List of schools who took part in Debate competitions:

- iv. Intra District :
- v. Inter district:
- vi. Final

i. Inter District

List winner School who took part Inter District Debate Level Competition

S.No.	District	Name of School	Position	Name of Student
1	GB Nagar District	Vishwa Bharti Public School Dwarka	1 st	1.Bharat Goel 2.Mahavir Dabas
2	GB Nagar District	Step By Step Noida Plot No.A-10,Sector 132,Taj Expressway, Noida, Uttar Pradesh 201303	2 nd	1. Arihant Drabu 2.Shreyash Nigam
3	Central Delhi District	AES Sr Sec School Prasad Nagar	1 st	1. Parul Sarma 2.Sai Anukya
4	Central Delhi District	Navahind Girls School Rohtak Rd New Delhi Meena Goel Ph	2 nd	1.Ashima Sehgal 2. Chanchal Gupta
5	Shahadara Delhi District	DAV School Srestha Vihar Delhi 92	1 st	1. Savi Sethi 2. Khusboo Sagar
6	Shahadara Delhi District	S R DAV School Dayanand Vihar Delhi -92	2 nd	1.Jaskaran Singh 2.Kshitj Chauhan
7	South Delhi District	D P S Intl P-37, Sector VI, Pushp Vihar, Saket, New Delhi, Delhi 110017	1 st	1. Muskan Gupta 2. Gautam Goyal
8	South Delhi District	Airforce Golden Jubilee Subroto Park Delhi Cantonment New Delhi 10	2 nd	1. Ankit 2.Tanya Mathur

9	West Delhi District	Modern Era Convent school B 1 Janakpuri New Delhi-58	1 st	1. Shivani Jolly 2.Siddharth Sawhney
10	West Delhi District	Adarsh Public School Kirti Nagar New Delhi 15	2 nd	1. Sneha Ganesh 2.Pranjali Garg
11	East Delhi District	National Victor Public School	1 st	1. Ms Lakshita 2. Ms Smalika
12	East Delhi District	A S N Sr.Sec.School Mayur Vihar Ph 1 Delhi	2 nd	1.Ms deepshikha 2. Ms Nikita
13	New Delhi District	Bhartiya Vidya Bhavan Mehta's Vidyalaya , Kasturba Gandhi Marg, Copernicus Marg, New Delhi, Delhi 110001	1 st	1. Vyusti Kumar 2. Dwaipayan Mukherjee
14	New Delhi District	Modern School Barkhamba Rd New Delhi-1	2 nd	1.Arshdeep Singh 2. Samarth Garg
15	North Delhi District	Mount Abu Public School Sector 5 Rohini Delhi	1 st	1. Ms Ritika 2. Ms Isha Singla
16	North Delhi District	Mother Divine Public School G31, Sector 3, Rohini, New Delhi, Delhi 110085	2 nd	1.Ms Sanjana Shokeen 2. Ms Vani Sharma
17	South West Delhi District	St.Mary's School Sec 19 Dwarka Delhi	1 st	1.Sartak Bhardwaj 2.Rupam Jha
18	South West Delhi District	R.D.Rajpal School Sector 9, Dwarka, New Delhi, Delhi 77	2 nd	1.Ayush Kr Singh 2. Saumya Sinha
19	South East Delhi District	Delhi Public School Mathura Road New Delhi	1 st	1. Diksha Chawla 2. Saumya Mehra.
20	South East Delhi District	DAV Public School Kailash Hills New Delhi	2 nd	1.arzoo Gupta 2. Rashi Srivastawa.

Inter district

Winner School who took part Inter District Level Debate Completion GB Nagar Noida			
S.No.	Name of School	Position	Name of Student
1	St. Marry School Dawarka Delhi	1 st	1.Sartak Bhardwaj 2.Rupam Jha
2	Modern Era Convent School Janak Puri New Delhi	2 nd	1. Shivani Jolly 2.Siddharth Sawhney
3	Airforce Golden Jubilee School Suborto Park Delhi Cantonment New Delhi	3 rd	1. Shivani Jolly 2.Siddharth Sawhney
4	Tagore International School Vasant Kunj	4 th	
5	Vishwa Bharti Public School Sec 28 Noida u.p	5 th	1.Bharat Goel 2.Mahavir Dabas
6	DPS International School Puspvihar Delhi 110062	6 th	1. Muskan Gupta 2. Gautam Goyal

i. Final Result

Final Winner School who took Part in Inter District Debate Level completion.			
S.No.	Name of School	Prize	Name of Student
1	St.Mary's School Sec 19 Dwarka Delhi	1st Prize	1.Sartak Bhardwaj 2.Rupam Jha
2	Airforce Golden Jubilee Subroto Park Delhi Cantonment New Delhi 10	2nd Prize	1. Ankit 2.Tanya Mathur
3	Modern Era Convent school B 1 Janakpuri New Delhi-58	3rd Prize	1.Shivani Jolly 2.Siddharth Sawhney

Annexure 2

List of schools who took part in Debate competitions:

Annexure 2

- i. Intra District :
- ii. Inter district:
- iii. Finals

Intra District

List of School who took part Intra District Debate Level completion.	
S.No.	Name of School
1	Delhi Public School Noida
2	Ahlcon International Mayur Vihar Pase I
3	Indus Valley Public School
4	Bal Bharti Public School Noida
5	Amity international School Sec 34 Noida
6	Vishwa Bharti Public School Sec 28 Noida
7	Mayoor School Noida
8	Amity International Schoolb Vasundhra
9	Khaitan Public School
10	Amity International School Mayur Vihar
11	Father Angel School Noida
12	Modern School Noida
13	Lotus Valley International School Sec 126 Noida
14	Ryan International School Noida
15	Vishwa Bharti Public School Dwarka
16	Step By Step Noida
17	Vishwa Bharti School Greter Noida
18	Somerville School Greeter Noida
19	Millennoim School Noida
20	Gurukul School
21	A.G.D.A.V Cenetary Public school Model Town Delhi 09
22	Bosco Public school Sunder Vihar Paschim Vihar New Delhi 110087
23	Doon Public School B-2 Paschim vihar New Delhi 110063
24	G.D. Goneka Public School Rohini Sec 9 New Delhi 110063
25	Gov. Co-ed Sarvodya Vidhyalaya Ghevra Delhi 110081
26	Himalaya Public School Sec 7 Rohini Delhi

27	Lancer Convent School Prasant Vihar Rohini Delhi 85
28	Lilawati Vidya Mandir Sen,Sec. School Shakti Nager Rohini
29	M.M. Public School Vasudha Enclave pitampura Delhi
30	Maharaja aggarsain adarsh Public School DU Block Pitam Pura Delhi 34
31	Maxfort School H.S 2 Sec 23 Rohini
32	Modern Public School B Block Shalimar Bagh Delhi 88
33	Mother Divine Public school G 31 Sec 3 Rohini 85
34	Mount Abu Public School sec 5 Rohini 85
35	N.K. Bagrodia Public School Sec 9 Rohini Delhi 85
36	Nav Bharti Public SchoolDeepali pitam pura Delhi 34
37	North Delhi Public School Shaliamr Bagh Delhi 11008
38	Prabhu Dayal Public School AE Block Shalimar Bagh Delhi
39	Queen Marry school Model School
40	Rajkia Pratibha Vikash Vidhyalaya Sect 11 Rohini
41	Sachdeva Public School Sect 13 Rohini Delhi
42	Sarvodaya Kanya Vidhyalaya Delhi
43	St. Xavier Sen. Sec. School B Block Prasant Vihar Rohini Delhi 85j
44	The Srijan School \$ B North Model Town Delhi 9
45	Titiksha public School Sec 11 Rohini Delhi 85
46	Venkateshwar Globel School Sec 13 Rohini
47	Vikash Bharti Public School Sec 24 rohini Delhi
48	Yuva Shakti Model School Sec 3 Rohini Delhi
49	Maxfort School
50	Shiksha Bharti Public School
51	N.K. Bagrodia Public School
52	Sri. Venkateshwar International School Sec 18 Dwarka
53	Venkateshwar International School Sec 10 Dwarka
54	Dwarka International School
55	Delhi International School
56	R. D. Rajpal School
57	Queen Valley School Dwarka
58	Brain International School
59	Mount Carmel School
60	Basava International School Dwarka
61	St. Mary School Sec 02 Dwarka
62	Mayo International School
63	Laxmi Public School
64	Ryan International Schol Mayur Vihar
65	National Victor Public School
66	ASN Sen. Sec. School Mayur Vihar Pase I
67	Mother Mary School Mayur Vihar Pase I
68	R.S.K.V. Patpargunj Delhi

69	Mayur Public School I.P Extention Delhi
70	Mother Globel School C Block Preet Vihar Delhi
71	Evergreen Public School Vashundra Enclave Delhi
72	SLS DAV Public School Mausam Vihar Delhi
73	Gov.Co-ed Sen. Sec. School Chilla Villegge Pase I Delhi
74	RSKV (Rastriya Srvidya Kanya Vidhyalaya) Kalyanvas Delhi
75	Bharti Public School Swustha Vihar Delhi
76	Universal Public School Delhi
77	Masonic Public school
78	NEO Convent Sr. Sec. School Vikashpuri
79	St. Cecelia Sen. Sec. School
80	Indra Ideal School
81	Mamta Modern Sen. Sec. School H Block Vikash Puri Delhi
82	GD Goenka Public School
83	New Horizon School
84	Balvant Mehta Vidhya Bhawan
85	Pargati public School
86	Rainbow English school
87	Queen Valley School
88	Sumeral Mal Jain School
89	St. Peter Convent School
90	Adarsh Public School
91	Cambridge Foundation School
92	Hope Hall Foundation School
93	N.C Jindal Public School
94	Modern Era Convent Sen Sec. School
95	Gov. Girls Sen. Sec. School Vivek vihar Delhi
96	Gov. Girls Sen. Sec. School Kanti Nagar Delhi
97	Hilwoods Academy School
98	D.A.V Public School Srestha Vihar
99	S.K.V. Vivek Vihar
100	S.R.DAV Public School Sareshta Vihar
101	B.R.G.S.B.V. Bhola Nath Nagar
102	GDGPS East Delhi
103	GSBV Vivek Vihar
104	Vivekanand Public School B block Anand Vihar
105	G.D. Goenka Public School
106	Father Angel School Gautam Nager
107	Amity International School Saket
108	The Indian School Josip Broz Tito Marg
109	St. George School Alaknanda
110	Tagore International School Vasant Vihar

111	Red Rose Public School Saket
112	Gov. Boys Sen. Ec. School Kalka Ji New Delhi 110019
113	Airforce School Subroto Park
114	Amity International School Puspvihar New Delhi 62
115	Airforce Golden Jubilee Subroto Park
116	DPS International School Puspvihar Sec IV New Delhi
117	Guru Harkrishan Public School Vasant Vihar
118	Gov. Boys Sen. Sec. School RK Puram
119	Gyan Bhrti Public School Saket
120	Bloom Public School Vasant Kunj
121	Sanskritt School Chanakayapuri
122	Sarvodhya Co- Ed Vidhyalaya Sector 2 RK Puram
123	Chinmaya Vidyalaya Vasant Kunj
124	St. Antony Sen. Sec. school C 6 SDA
125	DTEA Sen. Sec. School Lakshmi Bai Nagar
126	Sri Mother International School Sri Aurbindo Marg
127	Modern School Vasant Kunj
128	Mount Carmel school
129	Vasant Valley school Block B Vasant Kunj
130	Green Field School Saket
131	Sadhu Vaswani School
132	Gov. Boys Sen. Sec. School Puspvihar
133	G.S.V Sarvodaya Bal Vidhyalaya Sarojni Nagar
134	Nautun Marathi school
135	Ramjas Sr. sec. School No.5 Karol Bagh New Delhi
136	St. Michels Sr. sec. school Pusa Road
137	Chougula Public School D/4 Faiz Road Karol Bagh New delhi
138	Nava Hind Girls Se.Sr. School New Rohtak Road Delhi
139	BRD SKV Prasad Nagar Karol Bagh New Delhi
140	Faith Academy
141	Rajkia Prathibha Vikash Vidhyalaya
142	A.E.S. Sr. Sec. School Prasad Vihar New Delhi
143	C.L. Bhalla DAV Sr. Sec. School
144	Bal Bharti Public School Grh Marg
145	GD Soni DAV Sr. Sec. School Pusa Road
146	Vidya Bhawan Girls Sen. Sec. School
147	DPS R.K Puram New Delhi
148	Mata Gujri Devi Public School C Block Greater Kialash I New Delhi
149	DPS Mathura Road Delhi
150	DPS Noida (U.P)
151	Modern School Barakhamba Road New Delhi

152	Sarvodhya Vidhyalaya Gov. Boys school Ambedkar Nagar Sec IV New Delhi 110062
153	DAV Public School Kailash Hill New Delhi 110065
154	DPS Indra Puram Gaziabad
155	DPS Vasant Kunj New Delhi
156	KR Manglam G.K. I New Delhi
157	Guru Harkesh Public School Kalka Ji
158	Ahlcon Public School

ii. Inter District

List of School who took part Inter District Debate Level Competition				
S.No.	District	Name of School	Prize	Name of Student
1	GB Nagar District	Vishwa Bharti Public School Dwarka	1 st Prize	1.Bharat Goel 2.Mahavir Dabas
2	GB Nagar District	Step By Step Noida Plot No.A-10,Sector 132,Taj Expressway, Noida, Uttar Pradesh 201303	2 nd Prize	1. Arihant Drabu 2.Shreyash Nigam
3	Central Delhi District	AES Sr Sec School Prasad Nagar	1 st prize	1. Parul Sarma 2.Sai Anukya
4	Central Delhi District	Navahind Girls School Rohtak Rd New Delhi Meena Goel Ph	2 nd Prize	1.Ashima Sehgal 2. Chanchal Gupta
5	Shahadara Delhi District	DAV School Srestha Vihar Delhi 92	1 st Prize	1. Savi Sethi 2. Khusboo Sagar
6	Shahadara Delhi District	S R DAV School Dayanand Vihar Delhi -92	2 nd Prize	1.Jaskaran Singh 2.Kshitj Chauhan
7	South Delhi District	D P S Intl P-37, Sector VI, Pushp Vihar, Saket, New Delhi, Delhi 110017	1 st prize	1. Muskan Gupta 2. Gautam Goyal
8	South Delhi District	Airforce Golden Jubilee Subroto Park Delhi Cantonment New Delhi 10	2 nd Prize	1. Ankit 2.Tanya Mathur
9	West Delhi District	Modern Era Convent school B 1 Janakpuri New Delhi-58	1 st Prize	1.Shivani Jolly 2.Siddharth Sawhney

10	West Delhi District	Adarsh Public School Kirti Nagar New Delhi 15	2 nd prize	1. Sneha Ganesh 2. Pranjali Garg
11	East Delhi District	National Victor Public School	1 st Prize	1. Ms Lakshita 2. Ms Smalika
12	East Delhi District	A S N Sr.Sec.School Mayur Vihar Ph 1 Delhi	2 nd Prize	1. Ms deepshikha 2. Ms Nikita
13	New Delhi District	Bhartiya Vidya Bhavan Mehta's Vidyalaya , Kasturba Gandhi Marg, Copernicus Marg, New Delhi, Delhi 110001	1 st Prize	1. Vyusti Kumar 2. Dwaipayan Mukherjee
14	New Delhi District	Modern School Barkhamba Rd New Delhi-1	2 nd Prize	1. Arshdeep Singh 2. Samarth Garg
15	North Delhi District	Mount Abu Public School Sector 5 Rohini Delhi	1 st Prize	1. Ms Ritika 2. Ms Isha Singla
16	North Delhi District	Mother Divine Public School G31, Sector 3, Rohini, New Delhi, Delhi 110085	2 nd Prize	1. Ms Sanjana Shokeen 2. Ms Vani Sharma
17	South West Delhi District	St. Mary's School Sec 19 Dwarka Delhi	1 st Prize	1. Sartak Bhardwaj 2. Rupam Jha
18	South West Delhi District	R.D. Rajpal School Sector 9, Dwarka, New Delhi, Delhi 77	2 nd Prize	1. Ayush Kr Singh 2. Saumya Sinha
19	South East Delhi District	Delhi Public School Mathura Road New Delhi	1 st Prize	3. Diksha Chawla 4. Saumya Mehra.
20	South East Delhi District	DAV Public School Kailash Hills New Delhi	2 nd Prize	1. Arzoo Gupta 2. Rashi Srivastawa.

List of Judges for the competitions

About Judges

1. Er Anuj Sinha:

He is an highly decorated independent science and technology communicator. At present he is a National Level Monitor for Ministry of Rural Development. He was Director Vigyan Prasar, NOIDA till November 2011 and earlier he was Scientist 'G' and Head NCSTC, Department of Science and Technology, New Delhi.

He scripted the growth of fertilizer industry and the administered price regime as an engineer and later has been involved in science policy formulation and implementation in various responsibilities in the Department of Science and Technology, New Delhi.

He has been an outstanding science and technology communicator and has led almost all major initiatives and innovations in national science outreach campaigns over the past two decades. His interests include travelling, reading, reviewing, interviewing and writing. He is driving the movement for re-visiting the concepts of scientific temper.

2. Dr KinKinni Das Gupta :

She is presently working as Scientist F in a national level organization, VIGYAN PRASAR, under the Department of Science and Technology, Govt. of India engaged in large-scale science popularization and science and technology communication activities in the country. As a member of the Vigyan Prasar team, I head the Information Communication and Technology division and working towards the development of gender sensitive science communication programme through different media and in various formats.

With her background in Physics and training in management, I have many years of research experience in the filed of science and technology communication and presently involved in ICT and Gender Communication.

Dr Kinkini's efforts has been strengthening and enriching the formal science learning and teaching through non formal education putting emphasis on activity-based, hand-on teaching learning, audio-visual aids etc. Vigayn Prasar, a national level organization engages in large scale science and technology communication programme and reaches out to different segments in the society through various formats and mode.

As a Communications Specialist, she has dealt with diverse issues related to ICT, Energy and Environment, Biodiversity, Agriculture for women , Public Health, preventive and promotional health, including Food Safety, Nutrition, Water, Environment Sanitation, Hygiene etc. and linking these issues for creating

comprehensive communication messages for increasing scientific awareness, influence planners, decision makers, opinion leaders, frontline health workers for implementation of programmes.

Emphasizing on the importance of technology communication to create awareness about various new, innovative technologies and its applications among the different target groups, stakeholders, etc. for their sustainable development. She has made many contributions in writing for science magazines, newsletters and radio.

Some of the major programmes initiated by her in recent years are: Safe and Hygienic Life Style for School Children, addressing household level food and nutrition security for tribal areas, Setting up of an Inter-institutional working group which acts as think tank to facilitate mechanism for dissemination, technology awareness for women, development of life skills integrated learning materials for secondary curriculum in science for National Institute of Open School (NIOS), as part of Adolescence Education Programme, under the initiative of UNFPA.

There are several publications at popular level science to her credit. She is also into many advisory boards of different scientific bodies and institutes.

3. Dr R S Yadav:

Has wide experience of more than three decades in different fields e.g. Extension education, marketing, storage & Research, Mass communication, Public Service Broadcast, Public Relation, Administration and co-ordination with various Institutions, Departments, Ministries, Non Governmental organizations, Universities, Academies etc.

Dr Yadav has published 18 research papers, about two dozen popular articles and written the Hindi version of the book entitled, "Nano- Technology the Future Revolution." (iii) More than 1500 interviews with various experts of different fields have been broadcast on various channels of All India radio and Radio Kashmir Srinagar at local, zonal, state capital, National and International level.

4. Dr Nimish Kapoor

Working as Scientist 'D'/PSO with Vigyan Prasar, Department of Science & Technology, Govt. of India from last 11 years (from 2004) and engaged in with national & international level science film festivals, science and technology communication campaigns and outreach activities for students, teachers, science communicators, journalists, TV producers and other stakeholders. Recently took over the charge of Science Film Festival Division with the objectives to catalyse science films and promote young science film makers of the country. Initiated Indo-Russian Science Film Festival in collaboration with Russian Embassy, New Delhi. Earlier to Vigyan Prasar, worked in the area of broadcasting & film making, and associated with various media organisations including ETV, Ramoji Film City, Hyderabad, India (as TV Producer-children's

programming); Zee Network (as Principal Researcher); Discovery Channel (as Writer) and Doordarshan & All India Radio, Public Broadcasting Units of India (as Programme Presenter) since 1997 to 2004. Produced over 1000 hrs. of quality television software of different genera.

Dr Rekha Aggarwal

Dr. Rekha Agarwal is a senior editor with the National Council of Educational Research & Training (NCERT), and a well-known life science writer, columnist, and litterateur. She holds an honours degree in Life Sciences, and Masters in three diverse areas: English Literature, Journalism, and Book Publishing from University of Delhi besides a honorary Doctor of

Science for her contribution to Popularisation of Science. She has been a columnist for the Hindustan Times group, broadcaster with All India Radio and Doordarshan and has authored many books, which have been published by such major publishing houses as the National Book Trust, Vigyan Prasar, Rajkamal Prakashan, and Unistar books. Her contribution as science communicator and litterateur has won her wide recognition including several national awards:

- 1 Atmaram Samman, Ministry of Human Resource Development, Govt of India, 2006
- 2 NCSTC National Science Award, Ministry of Science & Technology, Govt of India, 2006
- 3 *Sahityakaar Samaan* (Litterateur Award), Hindi Akademi, Delhi, 2005
- 4 Dr Meghnad Saha Award (First woman recipient), Ministry of Science & Technology, Govt of India, 2002
- 5 Children's Literature Award, Hindi Akademi, Delhi, 1985

Sh B K Tyagi

As a member of NCSTC and Vigyan Prasar family I had the opportunity to work for all types of Sciences Communication modes and media and in the process, got involved with the best Communicators, having special skill in identified area. Science popularization involves more of methods and behavioural skills rather than high content and academic qualification. I had the opportunity of working with primary school children to elderly persons in the rural sector for achieving goals. During this period, at least 30 training modules and unique projects have been carried out by NCSTC and Vigyan Prasar, where I always took active role.

Few projects, which are worth mentioning due to their mass appeal and popularity in the country, have been totally because of my efforts in the last fifteen years:

- * Usage of Folk Art for Science Communication
- * Environmental programmes for schools & clubs
- * Activity camps and science fairs, exhibitions for various targets groups
- * Radio Serial on Biodiversity, life & work of Indian Physicists and Planet Earth Astronomy, Major Scientific achievements of India since Independence and currently being broadcast in 19 languages from 119 radio station as part of International Year of Chemistry.

Scientific explanations of so-called miracles, and so on

- * Establishment of Science Clubs and their networking.
- * Development of training module for Astronomical activities
- * Development of activities kits (latest one on Biodiversity and Weather as a sub theme of Planet Earth-2008 Programme.)
- * Development of material in the form of books, kits etc as per the need of specific target group.

These are just few taking shape of major science popularization movement.

I have also worked extensively with the concept of “Class Room Theatre For Science Education” to break the monotony of dull and age-old methods of teaching science.

More than five years of experience in Department of Science & Technology, Government of India, assisting in planning, development and initiation of programmes, projects and several schemes of DST such as: Medical Biology, Biology of Reproduction and S&T for Women.

Dr. Chadaram Sivaji

Dr. Chadaram Sivaji obtained his Bachelors Degree in Physics and Masters Degree in Geophysics from Andhra University in 1984 & 1987 and awarded Doctoral degree at Indian School of Mines, Dhanbad in 1992.. During the doctoral research Dr. Sival carried out research on performance of various geophysical techniques and estimated the deep crustal discontinuities beneath the central India region from gravity field data.

From 1991 to 1997, Dr. Sivaji worked at Indian Institute of Geomagnetism, geophysical surveys using resistivity, magneto-telluric and geomagnetis methods for delineating deep geological structure in the Himalayan collision zone were carried out. Designed experiments to monitor electromagnetic precursors to earthquakes in Delhi-Rohtak belt. During 1999-2001, Dr. Sivaji was honoured by Government of Japan with STA Post Doctoral Fellow at Geological Survey of Japan. Dr. Sivaji performed extensive research on seismic wave propagation through random heterogeneous media using Laser Doppler Vibrometer experiments and derived the empirical relationships between waveform fluctuations and scale length of heterogeneity.

Since 1998 onwards, Dr. Sivaji has been working at the Department of Science and Technology, Government of India. Dr. Sivaji has contributed to the promotion of research in earth sciences in India at various capacities and launched new research programmes on multi-disciplinary aspects of earth sciences.

During 2007-2008, Dr. Sivaji was honoured with Visiting Professor at Institute of Seismology and Volcanology, Hokkaido University.

Government of India appointed D. Sivaji as Science Counsellor of India to Japan to foster and promote S&T collaborations between India and Japan during July 2011 to July 2015. He has organized several high level delegation from India to Japan including Prime Minister Shri. Narendra Modi's visit to the Laboratory of Prof. Shinya Yamanaka, Nobel Laureate for Medicine in 2012.

Currently, Dr. Sivaji assumed charge as Director in Department of Science and

Technology, Ministry of Science and Technology, Government of India, New Delhi and involved in establishment of Sophisticated Instrumentation Facilities in the country.

Dr. Uday Kakroo PI

Dr Uday Kakroo is a veterinarian by education (MVSc./BVSc., India) and he has over 37 years of active professional experience working with the government, private and social organizations in India at various senior positions. He co-founded Millennium India Education Foundation, a non-government organization in 2003, aimed mainly at community building, awareness among all sections of the society. In the recent past, his projects have included the revival of an old Indian script- Sharada by capacity building measures. He also organizes seminars and has published books on awareness building around Zoonosis (diseases communicated from animals to humans).

Snapshot



Display Banner District: Gautambudh Nagar Vishwa bharti Public School Noida on 8.8.2015



Inauguration Ceremony District: Gautambudh Nagar Vishwa bharti Public School Noida on 8.8.2015



Principal Ms Rashmi Kakroo addressing the participants at Vishwa bharti Public School Noida 8.8.2015



Addressing participant by Judge Er. Anuj Sinha



Judges L-R Dr R S Yadav, Er Anuj Sinha & Mr Ninish Kapoor at Vishwabharti Public School Noida



Debater speak towards the Motion.



Debater Speak against the Motion



Debater Speak for the Motion



Debater Speak against the Motion



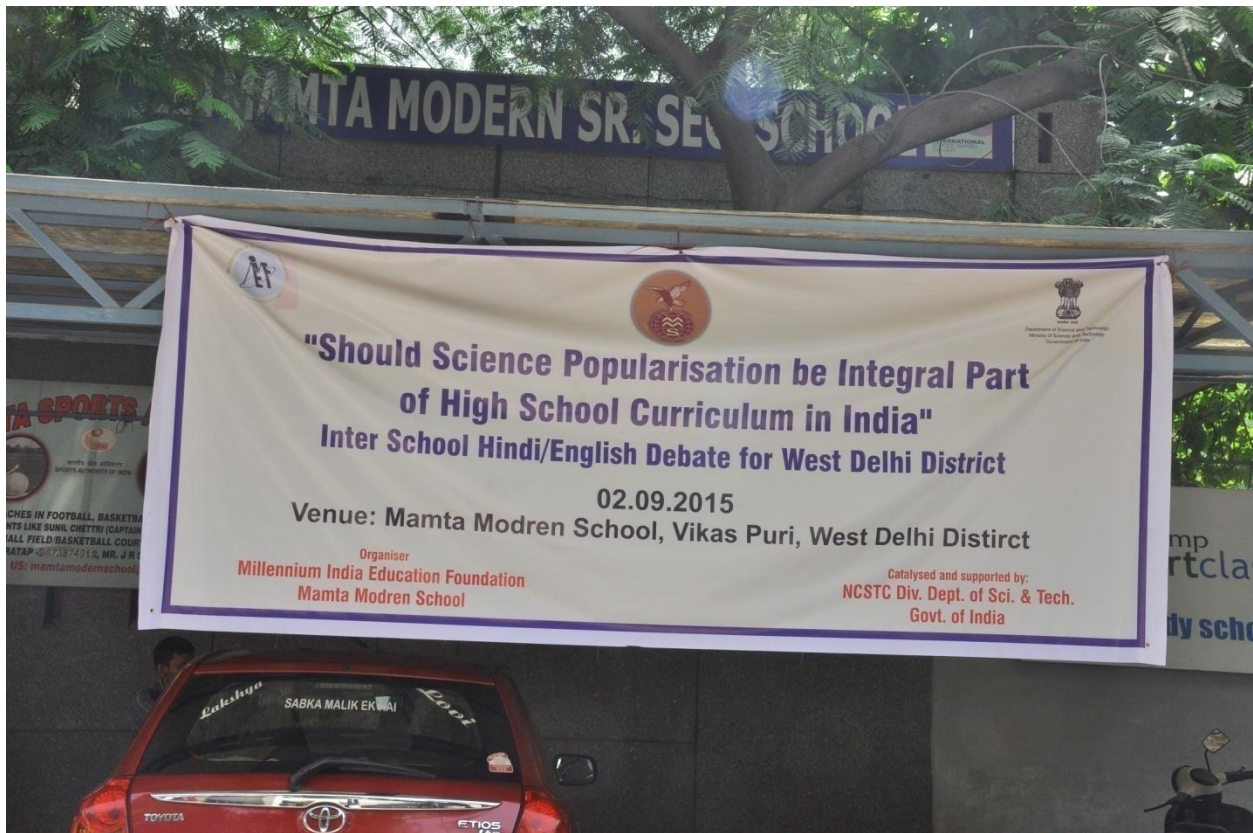
Winner 1st, 2nd and 3rd (from left to right)



Participant Guatum Bhuddha Nagar District Level Competition at Vishwabharti Public School Noida



Participant Guatum Bhuddha Nagar District Level Competition at Vishwabharti Public School Noida



Banner Displays District: West Delhi at Mamta Modern Public School Vikashpuri on 2.9.2015.



Inaugural function at Mamta Modern Public School Vikashpuri on dated 2.9.2015.



Judges; west Delhi District Level Debate competition at Mamta Modern Public School Vikashpuri



Participant west Delhi District Level Debate competition at Mamta Modern Public School Vikashpuri



Participant west Delhi District Level Debate competition at Mamta Modern Public School Vikashpuri



Debater Speak against the Motion



Debater Speak for the Motion



Debater Speak against the motion



Debater Speak for the motion



Dr. Uday Kumar kakroo Director MIEF addressing the Students and Participant about Program



First prize winner

Venue: Mamta Modern Public School Vokashpuri

Dated:



Addresses by Dr. Kankani Gupta (Judges) Venue: Mamta Modern Public School Vokashpuri Dated:



Distribution of Participant Certificate.



Judges for West Delhi District Level Debate competition at Venue: Mamta Modern Public School.



Display Banner Central Delhi District level Debate Competition at Venue: Nava Hind Girls Sr. Sec. School on 18.8.2015.



Registration Desk at Nava Hind Girls Sr. Sec. School New Delhi Date: 18/08/15



Facilitation to Smt..... Judges by Principal at Nava Hind Girls Sr. Sec. School Date: 18/08/15



Participant for Central Delhi District Level Debate Competition at Nava Hind Girls Sr. Sec. School



Participant for Central Delhi District Level Debate Competition at Nava Hind Girls Sr. Sec. School



Debater Speak for motion



Debater Speak against the motion



Debater Speak for the Motion



Debater Speak Against he Motion.



Interjector ask the question to Debater.



Central Delhi District Level First Prize whiner

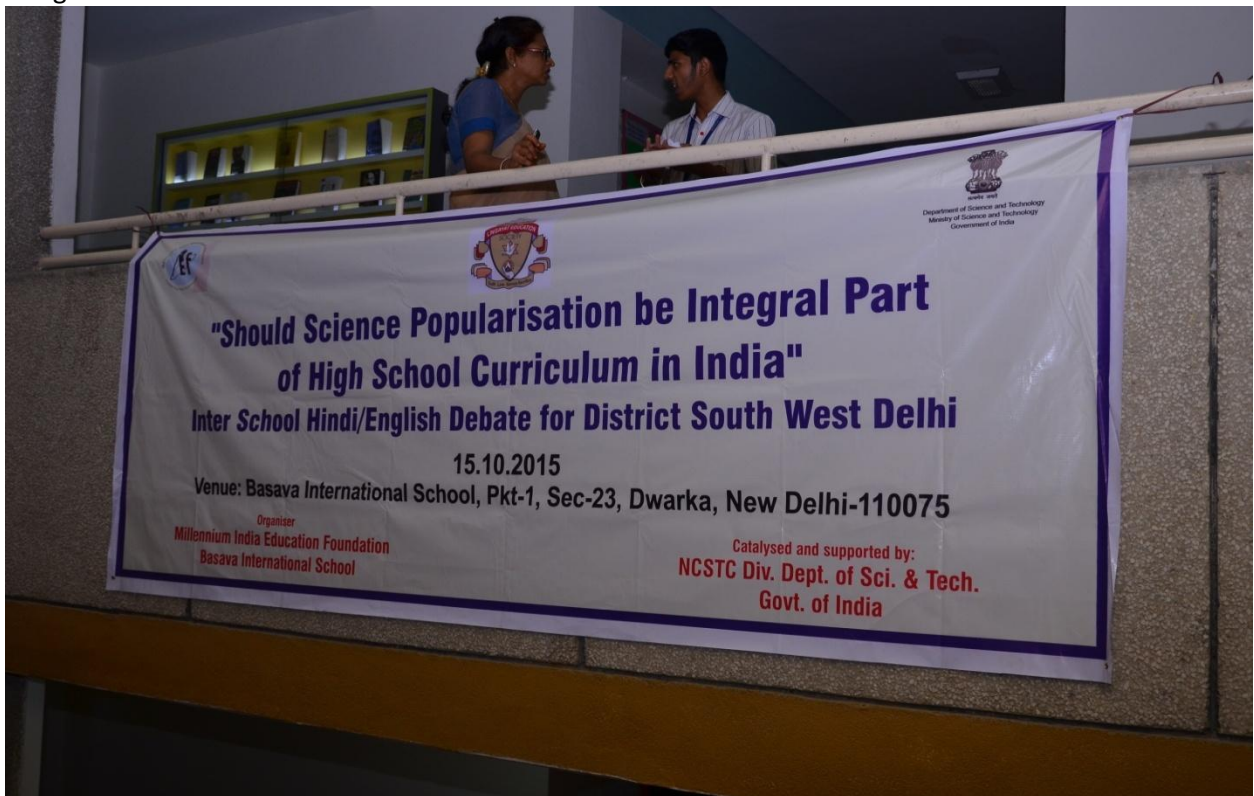


Distribution of participant certificate at Nava Hind Girls Sr. Sec. School New Delhi

Date: 18/08/15



Inaugural Function .



Display Banner South West Delhi District Level Debate Competition at Basava International School Dawarka on 15.9.2015.:



Registration Desk at South West Delhi District Level Debate Competition at Basawa International School



Facilitation to Judges Mr.



Participant for South West Delhi District Level Debate Competition at Basawa International School



Inauguration of program



Debater Speak for the Motion



Interjector ask the question



Debater Speak against the Motion



Debater Speak For the Motion



Debater Speak Against the Motion



Panel of Judges



South West District Level Winner first and second



Best speaker award



Distribution of Participant Certificates



Refreshment for Guest



Display Banner South East Delhi District level Debate Competition at Delhi Public School Mathura Road Delhi on 30/10/15



Facilitation to Dr. Uday Kumar kakroo Director MIEF at DPS Mathura Road Delhi



Panel of Judges from Left to Right Kinkinin Das Gupta, Anuj Sinha and Dr. R.S. Yadav



Debater Speak for the Motion



Debater Speak Against hr Motion



Debater Speak for the Motion



Debater Speak Against the Motion



Participant South East Delhi District level Debate Competition at Delhi Public School Mathura Road



Participant



Guest During Debate competition



Winner.



Distribution of Participant Certificates.



Display Banner North Delhi District Level Debate competition at Mount Abu public school Rohini Delhi on 14/10/15



Registration at Mount Abu public school Rohini Delhi



Inauguration



Participant



Judges



Facilitation to Judges by Principal



Cultural Programme performed by Students Mount Abu School



Addressing by Srmatii Ratna Sri Director Nehru Taramandal New Delhi.



Spaek towards the motion



Speak Against the Motion



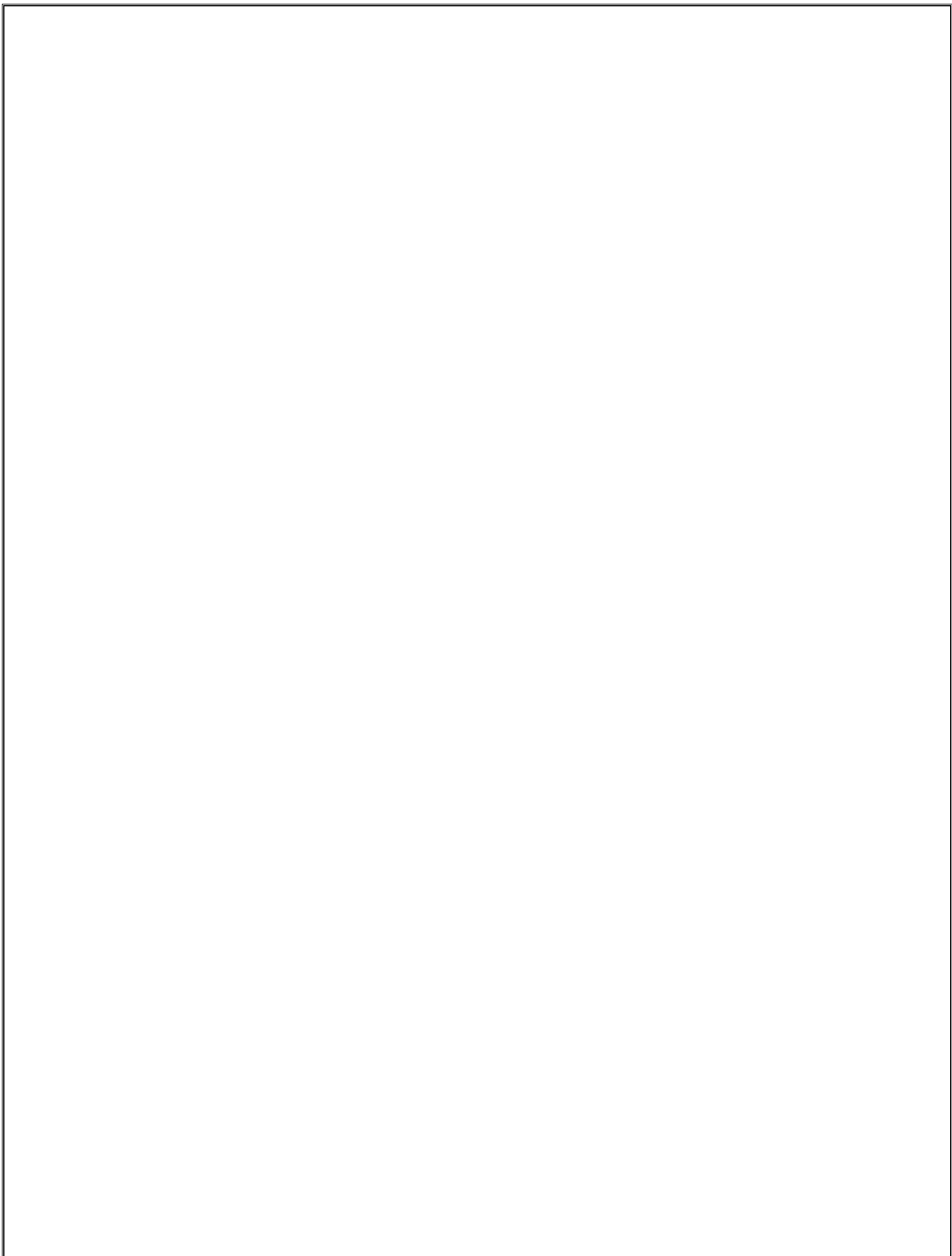
Debater Speak for the Motion.



Debater Speak Against the Motion.



Interjector ask the question





Display Banner South East District Level Debate Competition at Tagore International school Vasant Vihar New Delhi on 28/08/15



Registration Desk



Inauguration function



Cultural Program Perfume by Student Tagore International School



Participant South Delhi District



Participant South Delhi District



Speak towards Motion of Debate



Speak Against the Motion



Debater speak for the Motion.



Debater speak against the Motion



Interjector ask the question



Dr. Y.S. Yadav Addressing the Debate Competition



Winner



Refreshment for Judges and Guest.



Display Banner Shahrada District Level Debate Competition at G.D. Gonenka School on 28/08/16.



Registration Desk Shahrada District Level Debate Competition at G.D. Gonenka School



Inauguration function



Inauguration Function



Principal Addressing Debate Competition





Participants Shahrada District Level Debate Competition at G.D. Goneka School.



Participants.



Debater Speak towards the motion



Debater Speak Against the Motion



Debater speak for the Motion.



Debater speak against the Motion.



Decoration of Stage for Inter School East Delhi Debate competition



Interjector Ask the questions



TimeDesk



Best Interjector winner Shahdra Delhi Distric.



Second Prize winner S.R.DAV Dayanand Vihar .



Second Prize DAV school Sereshtha Vihar New Delhi



Winner First Second Interjector and Best speaker Winner.





Display of Banner Inter School Science New Delhi District level Debate Completion at Bhartiya Vidhya Bhawan New delhi on 13/09/15.



Registration Desk.



Inauguration Function



Inaugural Function.



Inauguration Function



Participants New Delhi District Level Debate Competition.



Participant



Facilitation to Er. Anuj Sinha By Principal Bhartiya Vidhya Bhawan New Delhi.



Debater Speak Towards the Motion



Debater Speak against the Motion



Debater speaks for the Motion.



Debater Speak against the Motion



Interjector Ask the question



Judges Desk



First Prize winner Bhartiya Vidya Bhavan K.G. Marg New Delhi(Vyusti Kumar and Dwaipayan)



Distribution of Certificates



Refreshment for Students



Refreshment for Judges and Guest.



Display Banner Second round Delhi State Level Debate competition at DPS International School Pusp vihar New Delhi on 26/11/16.



Inauguration Function



Inaugural function by Dr. B.K. Tayagi Scientist DST Gov. of India



Facilitation to Dr. Uday Kumar kakroo MIEF Director .



Participant Second Round Delhi State Debate Level Competition.



Participant Second Round Delhi State Debate Level Competition.



Participant Second Round



Judges Second round



Debater Speak towards the Motion



Debater Speak Against the Motion



Debater speak for the Motion.



Debater Speak against the Motion.



Interjector Ask the Question from DPS International School



Dr. B.K. Tayagi Scientist DST Gov. of India Addressing the Participant.



Winner Selected for First Round (Runner First Round)



Distributing of Certificates for Delhi State Level Debate Competition.



Refreshment for Judges



Addressing Dr. Uday Kumar kakroo MIEF Director.



Display Banner outside the gate for Delhi State level Debate competition final Round at DAV Public School Sareatha Vihar New Delhi on 30/11/15.



Registration Desk.



Inaugural Function.



Inaugural Function.



Inauguration By Dr. ABVP Mishra Ji Scientist. DST Gov. of India.



Guest.



Facilitation to Dr. ABVP Mishra Ji Scientist. DST Gov. of India.



Participant for Delhi State Level Debate Competition.



Debater speak for the Motion .



Debater Speak Against the Motion.



Debater Speak for the Motion.



Debater speak against the Motion.



First Prize winner Delhi state level Sartak Bhardwaj and Rupam Jha St. Marry School Dawarka .



Second Prize Winner Delhi State Level Shivani Jolly and Siddharth Modern Era Convent School Janak Puri



Third Prize Winner Delhi State level Debate Competition by tagore International school Pachsim Marg.



Winner District Gautam Budh Nagar Vishwa Bharti Public School Noida.



Winner District New Delhi Bhartiya Vidhya Bhavan New Delhi.



Winner District Sahahdra DAV Puublic School Sareshta Vihar.



Winner First Prize Distric South Delhi Air Force Golden Jubilee School .



Refreshment for Particiapnts.