ਡਾਇਰੈਕਟਰ ਜਨਰਲ ਸਕੂਲ ਐਜੂਕੇਸ਼ਨ-ਕਮ-ਸਟੇਟ ਪ੍ਰੋਜੈਕਟਰ ਡਾਇਰੈਕਟਰ ਸਰਵ ਸਿੱਖਿਆ ਅਭਿਆਨ ਅਥਾਰਟੀ, ਪੰਜਾਬ,

ਸਿੱਖਿਆ ਭਵਨ, ਈ ਬਲਾਕ, ਪੰਜਵੀ ਮੰਜਿਲ, ਫੇਜ਼-8 ਐਸ.ਏ.ਐਸ ਨਗਰ ਫੋਨ ਨੰ:0172-5212313,5212322 Website: <u>www.ssapunjab.org</u>

ਵੱਲ,

ਸਮੂਹ ਜ਼ਿਲ੍ਹਾ ਸਿੱਖਿਆ ਅਫਸਰ (ਸੈ.ਸਿ.), (ਨੋਟਿਸ ਬੋਰਡ ਰਾਹੀਂ) ਸਮੂਹ ਜ਼ਿਲ੍ਹਾ ਸਾਇੰਸ ਸੁਪਰਵਾਈਜ਼ਰ, ਪ੍ਰਿੰਸੀਪਲ, ਮੈਰੀਟੋਰੀਅਸ ਸਕੂਲ, (ਅੰਮ੍ਰਿਤਸਰ, ਜਲੰਧਰ, ਐਸ.ਏ.ਐਸ. ਨਗਰ, ਲੁਧਿਆਣਾ, ਬਠਿੰਡਾ, ਪਟਿਆਲਾ) (ਈ–ਮੇਲ ਰਾਹੀਂ) ਸਮੂਹ ਸਕੂਲ ਮੁੱਖੀ (ਵੈੱਬ–ਸਾਈਟ ਰਾਹੀਂ), ਪੰਜਾਬ।

ਮੀਮੋ ਨੰ: ਸਸਅ/ਐਮਸੀ/ਫੈ।1515&।

ਮਿਤੀ: 18-9-2015

ਵਿਸ਼ਾ:- Science and Astronomy Oly mpiad Programmes ਸਬੰਧੀ।

- 1.0 ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਸਬੰਧੀ ਲਿਖਿਆ ਜਾਂਦਾ ਹੈ ਕਿ ਕੌਮੀ ਓਲੰਪੀਆਡ ਪ੍ਰੋਗਰਾਮ ਜੋ ਕਿ Homi Bhabha Centre for Science Education ਅਤੇ ਫਿਜਿਕਸ, ਕੈਮਿਸਟਰੀ ਅਤੇ ਬਾਇਓਲੋਜ਼ੀ ਦੇ ਅਧਿਆਪਕ ਐਸੋਸੀਏਸ਼ਨ ਦੁਆਰਾ ਮਿਲ ਕੇ ਚਲਾਇਆ ਜਾ ਰਿਹਾ ਹੈ ਸੈਕੰਡਰੀ ਅਤੇ ਸੀਨੀ.ਸੈਕੰਡਰੀ ਲੈਵਲ ਤੇ ਉਂਚ ਪੱਧਰ ਦਾ ਟੈਸਟ ਹੈ।ਇਹ ਪ੍ਰੋਗਰਾਮ Deptt. of Atomic Energy, Deptt. of Science & Technology, Deptt. of Space ਅਤੇ MHRD ਦੇ ਸਹਿਯੋਗ ਨਾਲ ਭਾਰਤ ਸਰਕਾਰ ਦੁਆਰਾ fully funded ਹੈ।ਇਸ ਓਲੰਪੀਆਡ ਵਿੱਚ Pre-Universities ਵਿਦਿਆਰਥੀ ਭਾਗ ਲੈ ਸਕਦੇ ਹਨ। ਇਸ ਦਾ ਵਿਸ਼ਾ ਫਿਜਿਕਸ, ਕੈਮਿਸਟਰੀ, ਬਾਇਓਲੋਜ਼ੀ, ਜੂਨਿਅਰ ਸਾਇੰਸ, ਐਸਟ੍ਰੋਨੋਮੀ, ਐਸਟ੍ਰੋਫਿਜਿਕਸ ਅਤੇ ਮੈਥ ਹੈ। ਇਹ ਓਲੰਪੀਆਡ ਪੰਜ ਪੜਾਵਾਂ ਵਿੱਚ ਕਰਵਾਇਆ ਜਾਂਦਾ ਹੈ:
 - 1) National Standard Examination
 - 2) Indian National Olympiad Examination
 - 3) Orientation cum Selection Camps
 - 4) Final Training of selected Indian Teams at HBCSE
 - 5) Participation in International Olympiads ਓਲੰਪੀਆਡ ਵਿੱਚ ਭਾਗ ਲੈਣ ਲਈ 100/– ਰੂਪਏ ਫੀਸ ਹੈ।
- 2.0 ਉਚੇਰੇ ਪੱਧਰ ਤੇ ਖਾਸਕਰ 11ਵੀਂ ਅਤੇ 12ਵੀਂ ਜਮਾਤ ਦੇ ਚਾਹਵਾਨ ਵਿਦਿਆਰਥੀ, ਜੋ ਇਸ ਮੁਕਾਬਲੇ ਵਿੱਚ ਭਾਗ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹਨ, ਉਹਨਾਂ ਦੀ ਮਦਦ ਲਈ ਸਾਇੰਸ ਅਤੇ ਮੈਥ ਓਲੰਪੀਆਡ ਨਾਲ ਸਬੰਧਤ ਪ੍ਰੋਗਰਾਮ/ਹਦਾਇਤਾਂ ਦੀ ਕਾਪੀ ਵਿਭਾਗ ਦੀ ਵੈੱਬਸਾਈਟ www.ssapunjab.org ਤੇ ਮੈਥ ਅਤੇ ਸਾਇੰਸ ਦੇ ਬਣੇ ਵੱਖਰੇ ਲਿੰਕ ਉੱਤੇ ਪਾਈ ਗਈ ਹੈ।
- 3.0 ਇਸ ਸਬੰਧੀ ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ tifr ਦੀ ਵੈੱਬਸਾਈਟ olympiads.hbcse.tifr.res.in ਵੀ ਦੇਖੀ ਜਾ ਸਕਦੀ ਹੈ।

ਡਾਇਰੈਕਟਰ ਜਨਰਲ ਸਕੂਲ ਸਿੱਖਿਆ ਪੰਜਾਬ ~~/ ABHA CENTRE FOR SCIENCE EDUCATION

विज्ञान शिक्षा केंद्र, टाटा मूलभूत अनुसंधान संस्थान

NTUTE OF FUNDAMENTAL RESEARCH A Deemed University National Sentre of the Government of India for Nuclear Science and Mathematics V. N. Purav Marg, Mankhurd, Mumbai - 400 088.

Website: http://www.hbcse.tifr.res.in

प्रो. अन्वेष मज्मदार

राष्ट्रीय समन्वयक विज्ञान ओलंपियाइस

Prof. Anwesh Mazumdar

lational Coordinator, Science Olympiads

Phone: 91 - 22 - 2507 2322, 25072424

Fax: 91 - 22 - 2556 6635, 2558 6803

Email: anwesh@tifr.res.in

ef.: HBC/NC/15 ugust 25, 2015

Dear Sir/Madam,

Ms 100 Sci next

41915 I am writing to you regarding the Science and Astronomy Olympiad programmes in India. Please find enclosed 10 copies of the brochure which describes the Olympiad programme in Astronomy, Biology, Chemistry, Junior Science and Physics for next year (2015-2016). The national Olympiad programme, conducted by the Homi Bhabha Centre for Science Education (TIFR) in collaboration with the teacher associations in Physics (IAPT), Chemistry (ACT) and Biology (ATBS) is the highest level test of excellence among secondary and higher secondary students. This programme is the only channel for participation in the International Olympiads of the respective subjects. This programme is recognised and fully funded by the Government of India through the Department of Atomic Energy (DAE), Department of Science and Technology (DST), Department of Space (DoS) and the Ministry of Human Resource Development (MHRD). Over the last two decades, almost every Indian student who has qualified through the national programme has brought glory to the nation by winning a medal at the international olympiad.

Let me take this opportunity to bring to your notice the excellent performance of the Indian students in this year's international olympiads. The Indian teams to the Astronomy, Biology, Chemistry and Physics have recently returned from this year's international events held in July-August, 2015. The International Junior Science Olympiad will be held in December 2015. As always, every student from India has won a medal at each of the Olympiads. The details of their performance are enclosed herewith.

This year, India hosted the International Physics Olympiad in Mumbai, where students from 83 countries participated. India is going to host the next International Olympiad on Astronomy and Astrophysics in Bhubaneswar from 9 to 19 December, 2016.

I request you to kindly popularise the Olympiad programme in your state by providing publicity to it though the resources at your disposal. The school/college system is the most vital instrument in locating talented students who have the potential to excel at the highest level and can build the future of India. I seek your support and help in this national endeavour.

website: All information regarding the olympiad programme may be found on our olympiads.hbcse.tifr.res.in. Please do not hesitate to contact us for any clarifications.

With best regards

Prof. Anwesh Mazumdar

National Coordinator, Science Olympiads

Encl: (I) International Olympiad Results of 2014-2015.

(II) Olympiad Brochures (5 nos.) and Flyers.

Indian performance in International Olympiads 2014 - 2015

Subject	Olympiad	Venue	No. of total students (countries)	No. of Indian participants	Gold	Silver	Bronze	Honourable Mention
Astronomy	International Olympiad on Astronomy and Astrophysics	Magelang, Indonesia	210 (41)	5	3	2	-	-
Biology	International Biology Olympiad	Aarhus, Denmark	240 (61)	4	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	2	2	-
Chemistry	International Chemistry Olympiad	Baku, Azerbaijan	300 (75)	4	2	2		-
Junior Science (2014)	International Junior Science Olympiad	Mendoza, Argentina	150 (32)	6	6	-	-	-
Physics	International Physics Olympiad	Mumbai, India	382 (83)	5	-	4	1	1:

Details about the participants are given in the following pages.

Highlights:

- The Indian team won the Best Team award and the award for the Best Performance in Experiment in Junior Science Olympiad (IJSO) 2014. One of the Indian students won the award for Best Overall Performance (highest score), and another was the runner-up. All six students from India bagged gold medals.
- International Olympiad on Astronomy and Astrophysics (IOAA) India won the prize for the Best Team and was ranked first in the medals tally. Indian students also won the Team competition. This was India's best performance in Astronomy Olympiad in the last 9 years.
- 46th International Physics Olympiad (IPhO) was hosted by India in Mumbai from 5 to 12 July, 2015.
 The organizing institute was HBCSE.

Indian delegations at International Olympiads (2014 -2015)

Astronomy

The 9th International Olympiad in Astronomy and Astrophysics (IOAA 2015) was held in Magelang, Indonesia from July 26 - August 4, 2015. A team of 5 students, 2 leaders and 3 scientific observers represented India at this competition. In all 210 students from total of 41 countries participated in this prestigious event.

The details of our students' performance are:

Name	Place	Medal
 Debaditya Pramanik 	Kolkata	GOLD
2. Anand Iyer	Bhopal	GOLD
Ameya Patwardhan	Mumbai	GOLD
4. Dhruv Singh	Mumbai	SILVER
Anoop Gavankar	Mumbai	SILVER

The team was accompanied by the following mentors:

	and was accompanied by the follows	ing mentors.	
1.	Dr. Aniket Sule,	HBCSE (TIFR), Mumbai	Leader
2.	Dr. Swapnil Jawkar	S. I. E. S. College, Mumbai	Leader
3.	Prof. M. N. Vahia	TIFR, Mumbai	Scientific Observer
4.	Prof. Najam Hasan	Moulana Azad	Scientific Observer
		National Urdu University, Hyderabad	
5.	Prof. Ashok Kumar Mohaptra	NISER, Bhubaneswar.	Scientific Observer

The Indian team won the Best Team award and India was ranked first in the medals tally.

Biology

The 26th International Biology Olympiad (IBO 2015) was held in Aarhus, Denmark from July 12-19, 2015. A team of 4 students, 2 leaders and 2 scientific observers represented India at this competition. In all 240 students from 61 countries participated in this prestigious event.

The details of our students' performance are:

	Name	Place	Medal
1.	Mudit Agarwal	Jaipur	SILVER
2.	Oshin Bhatia	Patiala	SILVER
3.	Rishikesh Choudhari	Nasik	BRONZE
4.	Vaidehi Rakholia	Rajkot	BRONZE

The team was accompanied by two leaders:

 Prof. Kauresh Vachharajani 	M. S. University of Baroda	Leader
Dr. Rekha Vartak	HBCSE	Leader
Mr. R. Radhakrishnan	Sardar Patel Vidyalaya, Delhi	Scientific Observer
4. Ms. Anupama Ronad	HBCSE	Scientific Observer

Chemistry

The 47th International Chemistry Olympiad (IChO 2015) was held in Baku, Azerbaijan from July 20 - July 29, 2015. A team of 4 students, 2 leaders and 2 scientific observers represented India at this competition. In all 300 students from total of 75 countries participated in this prestigious event.

The details of our students' performance are:

Name	Place	Medal
 Vidya Sagar Naidu 	Vishakhapatnam	GOLD
2. Kshitij Garg	Kota	GOLD
3. Piyush Kabra	Jaipur	SILVER
4. Ameet Deshpande	Bengaluru	SILVER

The team was accompanied by the following Mentors:

1. Prof. Anindya Dutta	IIT Mumbai	Head Mentor
2. Prof. Prodeep Phukan	Gauhati University	Mentor
3. Prof. Avinash Kumbhar	University of Pune	Scientific Observer
4. Mr. Abhijit Chavan	S. P. College, Pune	Scientific Observer

Physics

The 46th International Physics Olympiad (IPhO 2015) held at Mumbai, India from July 5 - 12, 2015. A team of 5 students, 2 leaders and 4 scientific observers and 2 visitors represented India at this venue. Over 382 students from of 83 countries participated in this prestigious event.

The details of our students' performance are:

	Name	Place	Medal
1.	Gowtham Amirthya Neppoleon	Hyderabad	SILVER
2.	S. E. Sai Prakash Reddy Pabatireddy	Hyderabad	SILVER
3.	Sheshansh Agrawal	Jaipur	SILVER
4.	Anuj Apte	Raipur	SILVER
5.	Arindam Bhattacharya	Bengalaru	BRONZE

The team was led by the following leaders:

1.	Prof. Subhash Chandra Samanta	Midnapore, West Bengal	Leader
2.	Prof. Patrick Das Gupta	University of Delhi	Leader
3.	Prof. M. L. Ogalapurkar	IAPT, Pune	Scientific Observer
4.	Prof. Ravi S. Bhattacharya	G. N. Khalsa College, Delhi	Scientific Observer
5.	Prof. R. M. Dharkar	IAPT, Pune	Scientific Observer
6.	Prof. Pramendra R. Singh	Jagdam College, Bihar	Scientific Observer
7.	Dr. Deepak Chandra	Delhi	Visitor
8.	Dr. Mita Chowdhury	Kolkata	Visitor

Junior Science Olympiad

11th International Junior Olympiad (IJSO 2014) held at Mendoza, Argentina from December 2 - 10, 2014. A team of 6 students, 3 leaders and 1 scientific observer represented India at this competition. In all 150 students from of 32 countries participated in this prestigious event.

	Name	Place	Medals
1.	Kushagra Juneja	Delhi	GOLD
2.	Irin Ghosh	Durgapur	GOLD
3.	Debaditya Pramanik	Hyderabad	GOLD
4.	G. Pradeep	Chennai	GOLD
5.	T. Sai Teja	Kolkata	GOLD
6.	Yash Jain	Jaipur	GOLD

The team was led by following leaders:

1.	Dr. Jogeswar S Purohit	Smt. C.H.M. College, Ulhasnagar	Leader
2.	Mr. Pradip Dasgupta	Chembur, Mumbai	Leader
3.	Ms. Sujata N. Haralkar	Siddharth College, Mumbai	Leader
4.	Dr. P. K. Joshi	HBCSE (TIFR), Mumbai	Scientific Observer

The Indian team won the Best Team award and the award for the Best Performance in Experiment. Kushagra Juneja won the top performer's award, while Irin Ghosh came second in terms of overall performance.

(Prof. Anwesh Mazumdar)

The Science and Mathematics Olympiad in India

What is the Science Olympiad Programme?

Science Olympiads are like Olympics and are held every year in different International locations.

Subjects:

Physics, Chemistry, Biology, Junior Science, Astronomy & Astrophysics and Mathematics.

Who can participate?

Pre-University Students
The syllabus is largely pre-university.

Nodal Centre:

Homi Bhabha Centre For Science Education

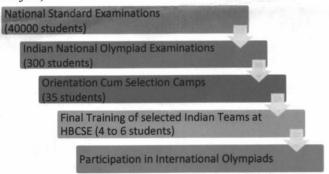
The Centre runs the programme with the help of voluntary teacher bodies. Various government agencies including the Department of Atomic Energy (DAE), the Department of Science and Technology (DST), the Department of Space (DOS) and the Ministry of Human Resource Development (MHRD) among others provide financial aid.

What is the cost of participation?

A Nominal fee of Rs. 100/- per subject is the only cost. The rest including the International travel & stay is made possible by voluntary work of Teacher Associations & Government Grants.

Science Olympiad Programme is held in five stages:

(the numbers given below are approximate and for each subject)



Achievements:

Performance has been outstanding. Almost every student selected to the International team has come back with a medal. The strike rate is 100%. Our students have also topped in State Boards and Entrance Exams such as IIT – JEE (Science & Engineering) & AIIMS (Medical). They have been awarded reputed scholarships such as KVPY, Aditya Birla and Rhodes. They have published in international scientific journals while continuing their undergraduate studies.

Mathematics Olympiad:

The Mathematics Olympiad also follows a five-stage process. The first stage is conducted at the regional level. 750 students are selected for the second stage. 60 students, both Junior and Senior, are called for the third stage (Training Camp). 6 students are selected and undergo Pre-Departure Training. They represent India in the International Mathematical Olympiad.

For Teachers:

HBCSE organizes several exposure and resource generation camps for teachers at the school and college levels. Scientists from leading institutions also participate in these camps. The total participation from across the nation is approximately 300 every year. Teachers are encouraged to apply. The schedule for these camps is announced on the HBCSE website (see below).

Olympiad related publications which include problems and related information are available as HBCSE Publications. See HBCSE website given below for details on how to order.

Note on other Olympiads:

We mention below a few other Olympiads recognized but not directly organised by HBCSE.

- 1. Asian Physics Olympiad-APhO (apho.phy.ntnu.edu.tw/)
- Earth Science Olympiad-IESO (eartholympiad.webs.com/, www.geosocindia.org/)
- 3. International Astronomy Olympiad-IAO (Junior) (www.issp.ac.ru/iao/, www.nehrusciencecentre.org)
- 4. Informatics Olympiad (ioinformatics.org/index.shtml)

These Olympiads lead to International Participation, provide exposure to teachers, and rigorous orientation to students - all at no cost. We caution the students and teachers about private Olympiads, which are not officially recognised by the Government of India and which do not lead to participation in International Olympiads.

Helpful websites are:

- For the first level selection [National Standard Examinations]: www.iapt.org.in
- For International Physics Olympiad: www.ipho.org
- For International Chemistry Olympiad: www.icho.sk
- For International Biology Olympiad: www.ibo-info.org
- For International Olympiad on Astronomy and Astrophysics:
 www.ioaa2016.in
- For International Junior Science Olympiad: www.ijso-official.org
- For International Mathematical Olympiad: www.imo-official.org/

Contact:

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Email: nc_olympiad@hbcse.tifr.res.in
Telephone: +91-22-2507 2322

Fax: +91-22-2556 6635

Website: olympiads.hbcse.tifr.res.in

* The information given above is for general introduction to the Olympiad programme and is tentative and subject to change. Please consult the official IAPT and HBCSE websites and brochures for complete information.