



Ignitia-2015 Inter School Mathematics & Science fair

September, 21ST , 2015

GENERAL INSTRUCTIONS

1. The completed entry form has to be sent to the host school latest by Monday, September 28, 2015, either by post or mail.
2. Reporting time for all the participants in the event is 8:15 a.m.

3. CATEGORY 1

Science : **TWO TEAMS**

Juniors :(ONE from classes VI to VIII)

Seniors :(ONE from classes IX to XI)

CATEGORY 2

Mathematics: **TWO TEAMS**

Juniors :(ONE from classes VI to VIII)

Seniors :(ONE from classes IX to XI)

- **maximum of 2 students, in each project accompanied by a teacher escort with each category**

3. Accompanying teachers are expected to ensure proper discipline and decorum of their students.
4. Participation in both the categories and both divisions is necessary for overall trophy.
5. Judgement will be based on innovation ,creativity and presentation.
6. The decision of the judges will be final and binding on all students and schools.
7. Details of the background and format required for project submission is attached
 - you can register for **INSEF REGIONAL FAIR** also on the following link online before **30th September** and selected projects can be filed as a separate entry in the fair
link for **INSEF REGIONAL FAIR:** <http://sciencesociety.in/insef/regional>
8. The details of the host school for correspondence:
For online registration visit this link <http://goo.gl/forms/33NDdyrnkS>

Name and Address: Amity International School
Sector 46, Gurgaon

Phone Numbers: 0124-2581001 / 02/ 03

E-mail id: aisg46@amity

- You may get in touch with our teacher incharge
Mrs.kamna Bhalla on the mail I.D kamna.bhalla28@yahoo.com
or call during school hours on the above mentioned phone no.



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ENTRY FORM

Name and address of the participating school:

Contact No _____

E-mail id _____

Fax No _____

Accompanying teachers with their mobile No's:

1. _____ Mob No _____

2. _____ Mob No _____

SCHOOL SEAL

PRINCIPAL'S SIGNATURE



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Total No Of Participants: _____

Junior Category (VI - VIII)

Event	Name of Participants	Class
Science	1	
	2	
Maths	1	
	2	

Senior Category (IX - XI)

Event	Name of Participants	Class
Science	1.	
	2.	
Maths	1.	
	2.	



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Mathematics in life

“There are things which seem incredible to most men who have not studied mathematics.” as rightly said by Aristotle.

Mathematics is a universal language mutual to all individuals, irrespective of their culture, religion, or gender, and followed all over the world in same manner without any deviation in every sphere of life.

“The Universe is a grand book which cannot be read until one first learns to comprehend the language and become familiar with the characters in which it is composed. It is written in the language of mathematics...” as commented by Galileo Galilee.

At a higher level, mathematics helps in developing an analytic bent of mind and aids in better organization of ideas and appropriate expression of thoughts. However at a more general level, the importance of mathematics for a common man is somehow used, whenever he visits banks, shopping malls, post offices, or deals with business transactions, trade and commerce.

Some uses of mathematics in day to day life:

Mathematics help you determine speed, helps you calculate how much food to get, helps you make a recipe, and lets you know how much you weigh. It tells you how much money you have, how much money you make in a job, what size clothes you wear, and when your favourite show is on, tells you how much taxes to pay, and what time of the year it is.

There are many different kinds of maths we use every day. Ever throw a ball that includes geometry, inertia, spatial calculations, and so on. If you walk; geometry, friction, and again spatial relationship are

used. Mathematics is used as a problem solver in every walk of life. In fact it is involved directly or indirectly wherever we go and every thing that we may use like the personal computer or notebook or mobile phone with GPRS that you are using for reading my article hence whatever sources we might be using based on the mathematics.

We can conclude from the above discussion that a modern life style is completely handicapped and highly improbable, in the absence of mathematics.

We are looking forward to your students joining us and sharing their projects/working models on application of mathematics in life

Some of the recommended sub themes could be applications of Mathematics in

I. Medicine

II. Space

III. Architecture

IV. Sports

V. Games



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Science

" Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution. "

Albert einstein

Focal theme: Understanding Weather and Climate

Weather is the instantaneous state of the atmosphere, or sequence of states of the atmosphere with time, which can be defined as the condition of the atmosphere at any given time and place. Climate, on other hand, is the average as well as variability of weather conditions prevailing in an area over a long period of time, known also as the Statistics of Weather.

Moreover, weather and climate are among the key factors that determine the nature, condition, and pattern of natural resources (e.g. water, soil, flora, and fauna. In this perspective, any significant change in weather and climatic condition creates serious impact not only on natural resources but also on the biosphere as a whole, including human life.

Sub-themes:

I: Weather around You

Therefore, systematic approach for understanding weather of a locality/area will be the main concern of this sub-theme, which can help the children to make their decisions more precise and pragmatic, particularly adjusting with the weather conditions.

In doing so, children can also design and develop their own tools and instruments for measurement and analysis. Instead of simple information collection from secondary sources, analysis of long-term trends or some experimental and field based measurement of components must also be there in such study.

II: Impact of Human Activities on Weather and Climate

Growing population and increasing consumption of goods and services per head has influenced the weather conditions and climate locally and globally. Exploration and utilization of energy sources for the increasing demands of the growing society have pumped large quantities of green house gases into the atmosphere causing global warming.

Children are expected to observe and analyse the human activities which contribute to weather and climate changes in their locality and they can review the situation, scientifically /logically design and propose alternatives to improve the human life as well as control /reduce the negative impacts of human activities on weather and climate. Children also need to look at the impacts of human induced climate change or weather and climate related disasters like drought, cloudburst, landslide, flood, thunderstorm, cyclone, etc, which in turn could be linked to disease spread, stress due to heat and cold waves water shortage, crop yield decline, crop loss, weather and climate induced migration/refugee situations etc.

III: Weather, Climate and Ecosystems

Weather and climate have direct or indirect effect on the various components of ecosystems. With the variation of temperature, humidity and precipitation the quality of water, soil forming process, floral growth, and faunal composition may undergo change.

India's weather and climatic conditions change from region to region due to their geographical locations and other conditions; hence the parameters of weather vary from place to place. Due to such variations, the distribution of life forms, soil quality and water quality also vary from place to place.

Under this sub-theme, we need to understand and observe the changes in weather parameters as well as the changes in biotic and abiotic parameters around us. This will enable us to study the effect of weather/climate on ecosystems. Systematic observations, measurement, and analysis of weather parameters and the biotic and abiotic elements make us understand effect of these parameters on the functioning of ecosystem.

The projects encompassing effect of weather parameters on abundance of flora and fauna and seasonality, movements, breeding, feeding and other behavior patterns falls under this sub-theme,

Simple experiments can be conducted on the effect of light period, light intensity, atmospheric temperature, humidity and soil moisture on growth of plants. Stomata count as surrogate for the production of Oxygen, Rate of Carbon sequestration in different urban and rural situations etc. also can be done by the children.

IV: Weather, Climate, Society and Culture

Weather and climate determine the physical environmental condition of an area through their impact on abiotic and biotic elements and that condition in turn influences human way of life in the forms of belief, livelihood, and social, institutional, as well as cultural practices.

In broad perspective, this sub-theme will cover issues for systematic studies, like, local food practices, its seasonality and adjustments to weather situation, local calendar system and agricultural cycle and adjustments with weather, flood/draught adjustment approaches of different community/ locality, traditional knowledge on weather prediction, cultural practices, modern consumption practices and their impact on ecosystem and further impact on climate patterns etc. Studies taken up would try to establish the science behind these practices and the societal efforts to adapt to as well as to mitigate climate change.

V: Weather, Climate and Agriculture

Agriculture is the backbone of our country. Weather and climatic condition determine all the aspects of

agricultural practices, which is very much vivid in all agro- climatic regions of the country.

Under this sub-theme, children can observe changes in the weather regulating factors and their impact on agricultural system in their own area and find out some method/technique to mitigate.

Children can also carry out studies in different aspects of agriculture, right from seed selection, land preparation to harvesting and processing etc. Age old practices in agriculture in different areas and how these are related to local weather conditions can also be studied.

Sub-theme – VI: Weather, Climate and Health

Likewise, any variation in weather or climatic conditions adversely affects the health of living beings. Outcome of these changes - takes its toll on health, manifested by occurrence of diseases, or even sometimes an outbreak of epidemics.

In the light of the fact that weather and climate have potential impact on the health of human beings and animals, child scientists can undertake studies to understand the causative factors, the concerns arising and the corrective measures to be adopted to lessen the adversity.



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1. SCIENCE

I: Weather around You

II: Impact of Human Activities on Weather and Climate

III: Weather, Climate and Ecosystems

IV: Weather, Climate, Society and Culture

V: Weather, Climate and Agriculture

VI: Weather, Climate and Health

2. MATHS

Applications of Mathematics in

I. Medicine

II. Space

III. Architecture

IV. Sports

V. Games

3. Any other - Working Model