



Ref.: RSCL/1101/4/17-18/

Date: 21st November 2017

From: The Project coordinator

To,
The Principal

Sub: City Level Science Fair-2017 at RSC, Lucknow.

Dear Sir/Madam,

You may be aware that Regional Science City is functioning under the aegis of National Council of Science Museums (NCSM), under the Ministry of Culture, Government of India. The main objective of the center is popularization of science amongst the masses and development of scientific temper especially in children. This is done through large number of exhibits and activities conducted throughout the year by the centre.

It is our pleasure to inform you that Regional Science City, Lucknow will be organizing a **City Level Science Fair** on **19th, 20th & 21st December, 2017**, for local school students of **Class 8th to 12th** in the premises of the center in two categories i.e. **Individual Projects & Team Projects**. Please note that maximum **03 nos. of individual project & 02 nos. of team projects** could be considered from each school in City Level Science Fair. Out of total participating projects, One best Individual Projects & one best Team Project will be selected for contesting in Northern India Science Fair-2017-18 to be held at National Science Centre, New Delhi on **18th & 19th January 2018**. The main objective of the fair is to encourage students, teachers and the other science communicators to promote scientific awareness.

May I request you to kindly encourage your students for participation in above Science Fair and send your entries latest by **16th of December, 2017**.

Thanking you,

Yours faithfully,

(Project Coordinator)

CITY LEVEL SCIENCE FAIR (CLSF) 2017 - 2018

COMMUNICATION

INTRODUCTION

Almost all countries who organize science fairs in some form or other try to stimulate young minds to take active interest in science, engineering and mathematics and to provide a platform to these youngsters to nurture their creativity. The fairs further aim to provide an educational experience by exposing them to the judges and the public to give confidence and public recognition for their work. Every year over 2 millions students in India alone participate in these fairs at different levels.

OBJECTIVES OF SCIENCE FAIR

Research is a process by which people create new knowledge about themselves or the world around them in order to answer a question or solve a problem. While choosing the problem, one needs to carefully think as to how the research might enhance the knowledge and quality of lives of people. Similarly engineering feats try to create things, which never existed before to help mankind based on knowledge acquired. CLSF aims at bringing this aspect of thinking, problem solving and researching attitudes in young minds.

The student projects are excellent examples of 'inquiry' based learning which employs hands on approach to teaching science: students learn through research and experimentation, not just through lectures and books. It also tries to bring together young scientists from different parts of country to compete, get prizes/awards, establish new collaborations for future research, exchange thoughts with students from other cultures and make new friends.

ABOUT REGIONAL SCIENCE CITY, LUCKNOW

Regional Science City, Lucknow is a constituent unit of National Council of Science Museums, under the Ministry of Culture, Govt. of India, and is working with basic mission of popularizing science and enhancing public understanding & appreciation of science & technology. It also promotes a process of discovery in the minds of young children by supplementing science education in schools through interactive exhibits, publications, in-house and outreach science education programmes. It also co-ordinates district level Science Fair, Students Science Seminar, Science Drama Contest, Teachers Training Programme and Hobby Camp etc.

CITY LEVEL SCIENCE FAIR

Regional Science City, Lucknow shall be organizing the City Level Science Fair on scientific topics to select suitable number of student and teacher projects. The intake capacity at this science fair is approx. 30 individual student projects, 20 team projects. The City Level Science Fair will be held on **19th, 20th & 21st of December 2017 at Regional Science City, Aliganj Sector 'E' Ekta Vihar Lucknow.**

In the City Level Science Fair the following no. of projects are invited from each school.

1. **Individual Projects** - **3 Nos.**
No. of participants: (1 Students+ 1 guide teacher with each project)
2. **Team Projects** - **2 Nos.**
No. of participants with each project: (2 Students + 1 guide teacher with each project)

NORTHERN INDIA SCIENCE FAIR 2017 - 18

As a leader in science communication, National Science Centre, Delhi is committed to the promotion of interest in science and technology education among students across the northern India. Like every year National Science Centre will organize Northern India Science Fair 2017 -2018. The zonal fair will be held at Delhi in second week of January 2018. The main objective of the NISF is to infuse the spirit of discovery among students, by stimulating young minds to take an active interest in science & technology.

TOPICS FOR THE SCIENCE FAIR 2017 -2018

Physics

Theories, principles and laws governing energy and the effect of energy on matter, -solid state, optics, acoustics, particle, nuclear, atomic, plasma, super conductivity, fluid and gas dynamics, thermodynamics, semiconductors, magnetism, quantum mechanics, biophysics etc.

Computer Science

Study and development of computer hardware, software, engineering, Internet networking and communications, graphics (including human interface), simulations/virtual reality or computational science (including data structures, encryption, coding and information theory).

Mathematics

Development of formal logical systems or various numeral or algebraic computations and the application of these principles - calculus, geometry, abstract algebra, number theory, statistics, complex analysis and probability etc.

Engineering

Technology, projects that directly apply scientific principles to manufacturing and practical uses -civil, mechanical, aeronautical, chemical, electrical, photographic, sound, automation, marine, heating and refrigerating, transportation, environmental engineering etc.

Environmental Science

Study of pollution (water and land) sources and their control, ecology etc.

Bio- Chemistry

Chemistry of life processes- molecular biology, molecular genetics, enzymes, photosynthesis, blood chemistry, protein chemistry, food chemistry, hormones etc.

Chemistry

Study of nature and composition of matter and laws governing it - physical chemistry, organic chemistry (other than biochemistry), inorganic chemistry, materials, plastic, fuels, pesticides, metallurgy, soil chemistry etc.

Earth & Space Science

Geology, mineralogy, physiography, oceanography, meteorology, climatology, astronomy, space logy, seismology, geography etc.

Botany

Study of plant life-agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae etc.

Note: The above list is a guideline & not a comprehensive list. Any outstanding project not listed may also be considered.

WHO CAN PARTICIPATE?

Students from standard VIII to XIIth from schools can participate in CLSF. The participation is in the form of individual project category (one student per project), team project category (maximum 2 students per project).

HOW MANY CAN PARTICIPATE FROM EACH SCHOOLS?

Each school can send the following entries to the City Level Contest.

- I. **Individual Projects** - **3 Nos.**
No. of participants :(3 Students+ 1 guide teacher with each project)

2. Team Projects - 2 Nos.

No. of participants with each project: (2 Students + 1 guide teacher with each project)

WHAT IS EXPECTED?

Considering the high level of competition at various stages and prestige of the fair, the projects must have innovation, uniqueness, originality, quality and research potential that would **REVEAL SOMETHING NEW**. Help of a research scientist, teacher or parent could be taken as a guide. Organizers shall select only good quality for participation in NISF. **AVOID MAKING BULKY MODELS IN THERMOCOL, WOOD AND METAL, WHICH HAVE NO ORIGINAL RESEARCH INPUT.**

HOW TO CONCEIVE A PROJECT?

I) SELECTION OF TOPIC:

Pick up a subject out of the given topics and choose a problem/idea you are curious about / you want to study/investigate or develop.

II) LITERATURE REVIEW:

Go to libraries or internet, if you have, and learn everything you get on your problem/ idea. Observe related events and look for unexplained or unexpected results. Discuss with professionals in the field.

III) ORGANISE

Arrange everything you have learnt and narrow down your hypothesis.

IV) GUIDE

Choose your guide / sponsor / qualified scientist who could guide you in your project.

V) MAKE A TIME TABLE

Make a strict calendar of your activity with the help of your guide. Enough time should be given to experimentation.

VI) PLAN EXPERIMENT

Once the research plan has been drawn, write your researching procedure, exactly describing your method of experiment, steps etc. Discuss with your sponsor / guide.

VII) EXPERIMENTATION

After a careful thought of experimental design, keep notes of every experiment, measurement and observation. Try all variable possibilities.

VIII) EXAMINE RESULTS

After completion of experimentation organize your findings. If you got expected results as per your hypothesis, analyze the data and draw conclusions. If not, make another hypothesis.

IX) MODIFY EXPERIMENTAL SET UP / PROJECT

After you have succeeded, put up your project in presentable form for the fair. Display information, results and write the research paper, give title, contents, experiments, explanation, conclusion, acknowledgement and references.

PROJECT PARAMETERS : DISPLAY (MAXIMUM SIZE: 76 X 122 X 274 Cms.)

HINTS FOR GOOD PROJECT

Presentation

- a) Choose a Good Title
- b) Display Photographs
- c) Organize your presentation
- d) Make your display Eye catching

e) Correctly present your well constructed project

PROJECT REPORT

Each project may be supplemented by a research report giving (i) purpose of experiment, (ii) hypothesis, (iii) Procedures used (iv) data (v) conclusion (vi) usefulness of the experiment (vii) references (viii) acknowledgement.

SELECTION PROCEDURE

Selection of projects for higher stage will be done on the following basis :

Criteria	Individual Project	Team Project
Creative ability	30	25
Scientific thoughts & engineering goals	30	25
Presentation	15	12
Skill	15	12
Clarity	10	10
Team work	--	16
TOTAL MARKS	100	100

PRIZE STRUCTURE FOR CITY LEVEL SCIENCE FAIR:

	<u>Individual Project</u>	<u>Team Project</u>
<u>FIRST PRIZE</u>	Rs. 2000/-	Rs. 2000/-
<u>SECOND PRIZE</u>	Rs. 1500/-	Rs. 1500/-
<u>THIRD PRIZE</u>	Rs. 1000/-	Rs. 1000/-

Important information

Date of Science Fair	: 19th, 20th & 21st Dec. 2017
Last date of sending the filled up Reg. form	: 16th December 2017
For further details contact	: Education Cell, Regional Science City, Aliganj, Lko.
Telefax:	: 0522-2321804
Telephone:	: 0522-2327833

**REGIONAL SCIENCE CITY
(National Council of Science Museums)
Aliganj Extension, Sector 'E' (Ekta Vihar)
LUCKNOW-226024**

Last date for sending Reg. form : 16th December, 2017

REGISTRATION FROM
CITY LEVEL SCIENCE FAIR- 2017

(19th, 20th & 21st December 2017)

Type of Project : Individual/Team

Name of the Student (s) : _____

Name of the Guide Teacher: : _____

Name & Address of School : : _____

Name of Project: : _____

Scientific Theme of the Project: : _____

(Give details in design Sheet)

Requirement, for display: : Area _____ X _____ Mtr

Power: AC/DC

Special requirements: (If any e.g. Water, Dark Room etc) : _____

Date :

Signature of the Principal

(Seal of the School)