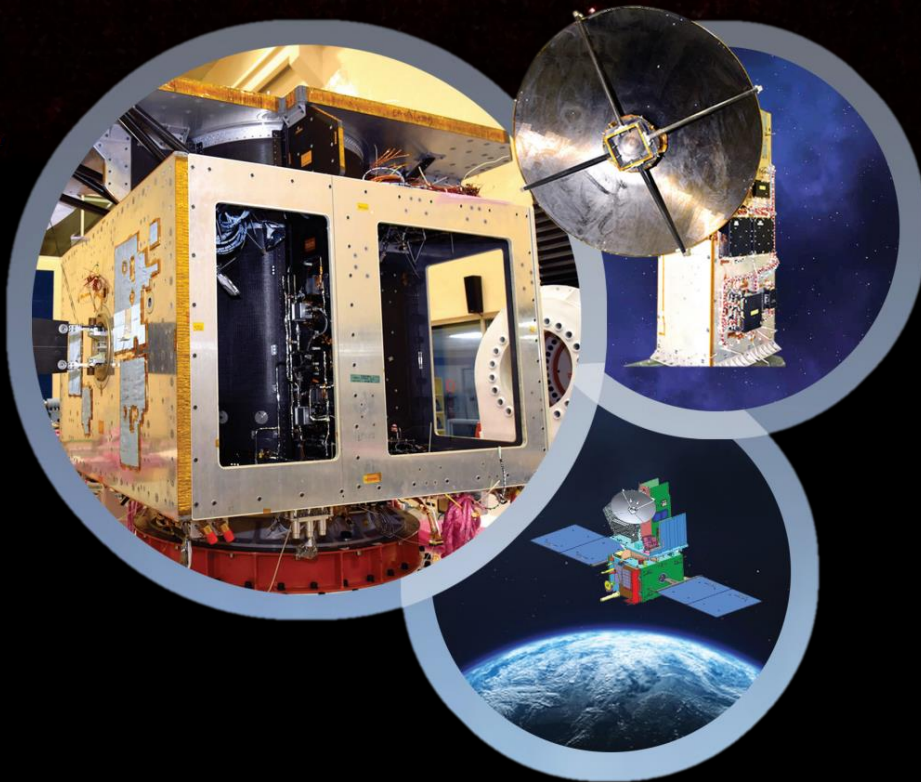# NATIONAL SCIENCE DAY

Integrated Approach in Science and Technology for Sustainable Future

28 Feb , 2022

**U R Rao Satellite Centre
Department of Space, Government of India,
Old Airport Road, Vimanapura P.O.
Bengaluru – 560017**

URSC Golden Jubilee

Jasvinder Singh Khoral
Chairman, Organizing committee, NSD-2022
Programme Director,
Space Infrastructure Geo platform   Phone: 080-25082107
U R Rao Satellite Centre   Phone: 080-25084432
Vimanapura Post,Bengaluru-560017   Email: nsd@ursc.gov.in

01 February, 2022

Sub: Celebration of National Science Day (NSD) - 2022

Dear Sir / Madam,

'National Science Day' is celebrated all over India on 28th February every year with great passion and enthusiasm to instill the spirit of scientific reasoning and inquiry in the young minds. This day is celebrated in commemoration of the discovery of "Raman Effect" by the Indian Physicist Sir C.V. Raman in the year 1928, which awarded him the prestigious Nobel Prize in Physics in the year 1930.

In addition to the celebrations in the country, we at U R Rao Satellite Center (URSC) are organizing several events open for school students and teachers in Karnataka. The details of the events are given in this brochure. In addition to various events planned in the month of February, we are also organizing one-day celebration on **28thof February**, **2022** in online mode.

I take this opportunity to invite students and teachers from your school to take part in various competitions and join us for the celebrations. Please refer to the brochure for details of the events and send the nominations for participation in the competitions to reach us well in advance.

On behalf of the Organizing Committee, it gives me immense pleasure to once again extend a warm welcome to students and teachers from your esteemed institution to participate in the events and make NSD-2022 a grand success.

With warm regards,

Yours sincerely,

(Jasvinder Singh Khoral.)

INVITATION

Online Valedictory Function of

"National Science Day"

February 28th, 2022

Time: 1000 Hrs

U R RAO SATELLITE CENTRE
BENGALURU

Program Highlights (Online only)

February 18, 2022

Day-1:
- ➤ **Painting** (Category A and B, 1000 Hrs to 1230 Hrs)
- ➤ **Test of Scientific Temper** (Category C, Preliminary round, 1400 Hrs to 1630 Hrs)

February 21, 2022

Day-2:
- ➤ **Extempore Science Elocution** (Category B, 1000 Hrs to 1300 Hrs and Category C, 1400 Hrs– 1700 Hrs)

February 22, 2022

Day-3:
- ➤ **Essay writing** (Category-B and C, 1000 Hrs to 1300 Hrs)
- ➤ **Test of Scientific Temper** (Category C, Final round; 1400 Hrs to 1700 Hrs)

February 23, 2022

Day-4:
- ➤ **Science Quiz** (Category-C, 1000 Hrs to 1700 Hrs)

February 24, 2022

Day-5:
- ➤ **Presentation of Innovative Ideas by Teachers** (1000 Hrs onwards)

Event -1
Painting Competition

2 Students per Category per School.
Category-A: I to IV Std., **Category-B**: V to VII Std.

Date: **18 Feb 2022**

Time: **10:00 Hrs to 12:30 Hrs for Category-A and B.**

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Instructions/ Notes:

- Painting theme will be provided at the onset of meeting.
- Participants need to paint in front of a camera with video mode enabled throughout the competition duration of 1 hour. Camera placement shall be done for good visibility of participant and the painting.
- A4 size paintings will be accepted.
- Post meeting, a scanned copy of the painting has to be mailed to nsd@ursc.gov.in . Submission has to be done within 15 minutes of completion of competition.
- Online meeting will be recorded.

Focal Pont for Clarifications:
Convener**:** Sushma H R
Phone**:** +919886575600/+919481116904
E-mail**:** nsd@ursc.gov.in

Event -2
Extempore Science Elocution

1 Students in each Category per School.
Category-B: V to VII Std., **Category-C**: VIII to X Std.

Date: **21 Feb, 2022**

Time: **1000 Hrs to 1300 Hrs for Category-B**
                  1400 Hrs to 1600 Hrs for Category-C

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Event Details:
This event aims at instantly speaking about science topics without preparation.

Instructions/ Notes:

1. Sufficient Topics will be provided related to Science and Technology in both categories.
2. Before start of the event, topic will be picked randomly against each serial number of the candidate by the members.
3. Topics will in known in advance and will be announced to the candidate before 10 minutes.
4. The maximum speaking time is 3 minutes.
5. Procedure is same for Category B and Category C.

Focal Pont for Clarifications:
Convener: Ramamurthy H
Phone: +919986889524
E-mail: nsd@ursc.gov.in

Event -3
Essay Writing Competition

2 Students per Language in each Category; Total 12 Students per School
Category-B: V to VII Std., **Category-C**: VIII to X Std.

Date: **22 Feb, 2022**

Time: **1000 Hrs to 1300 Hrs for Category-B and C.**

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Event Details:

This event aims at assessing the writing skills as well as testing their understanding of the subject matter. It is an individual event. Students are expected to write on the given topic in one of the languages (Hindi/English/Kannada). Selected essays will be awarded based on the content, coherence and presentation styles.

Instructions /Notes:

- This event aims at assessing the writing skills as well as testing their understanding of the subject matter. Actual topic for the essay writing will be disclosed during the competition.
- Students should write the essay in Hindi/Kannada/English whichever they are nominated
- Participants need to write in front of a camera with video mode enabled throughout the competition duration of 1 hour.
- Camera placement shall be done for good visibility of participant, no obstruction and the paper on which essay is being written
- Length of the essay to be restricted to maximum 4 full-scape/A4 size ruled sheets.
- Each page should be clearly numbered.
- Students should legibly write their name, class and school name at the top of the first page.
- Maximum time allotted to write the essay is 1 hour.
- Students must not use any reference materials/books/Internet while writing the essay.
- No discussion or break is allowed while writing the essay.
- After completing the hand-written essay, the students should scan the sheets, compile all the sheets into a single PDF file and send an e-mail within 15 minutes of completion with subject matter "Essay"
- Online event will be recorded.

Focal Pont for Clarifications:
Convener   **:** Kartik A.
Phone   **:** +919449710060
E-mail   **:** nsd@ursc.gov.in

Event -4
Test of Scientific Temper (*What, Why & How*)

3 students per school
Category-C: VIII to X std.

Date   : **18 Feb 2022, Phase-1 Preliminary, 1400 Hrs to 1630 Hrs**

                    : **22 Feb 2022, Phase-2 Finals, 1400Hrs to 1700 Hrs**

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Event Details:

This competition is mainly to test the approach reasoning ability of students to happenings related to normal day-to-day activities and observations of things around them. Some of those inquisitive questions could be as follows:

- *How a human can fly around earth?*
- *Why do we see Rainbows as semicircle?*
- *Why do we see only one face of the moon always?*

The students are expected to answer based on scientific principles/concepts. The event **Test of Scientific Temper** tries to explore scientific awareness among student community. The event based on participants will be organized in two stages. Preliminary round will be online test. The selected candidates will be given specific problem(s) to solve. The solution can be a write-up or presentation or static/working model, which the participant feels more appropriate. The solution should cover the understanding of problem, equipment required, principle of operations, logic and reasoning for choosing solution (whatever applicable to problem). For example, when asked, "how a human can fly around earth?", in proposed solution(s) candidate should think about environment in which human need to fly, the equipment required to fly around. Participants need to explain/present their solution on final day.

Instructions/ Notes:

1. This is an individual event.
2. Medium of test will be English.
3. The screening will be based on online test, which will be held on 18th Feb 2022.
4. Selected participant will be allowed to participate in final round and they need to submit/send their solution (to solve the given problem) by email.
5. Solutions need to be brief and focused. The original ideas, approach and answers will be appreciated.
6. The participants need to present their entries during second phase on 22, Feb 2022 (5 +2 minutes). The solution submitted will be displayed by host PC and participants need to explain from their device.
7. While evaluating answer, emphasis will be given for the understanding of basic scientific principles and approach to solve problem rather than solution of the problem.

Table-1: Timeline of Events

Sl.No	Event/Activity	Schedule	Description
1	Phase-1 Written Test And Phase-2 Problem Statement declaration	Feb 18, 2022 2:00PM to 4:30PM	Participant need to join with link. Questions will be displayed for 1-2 minutes and to be answered within stipulated time. Problems statement phase-2 will be made available on website
2	Phase-1 Results	On website/email Feb 18,2022 05:00PM	List of selected participants for final round will be posted on NSD web-page.
3	Phase-2 Submission of solution	Before 1:00PM Feb 21st 2022	Students are required to send the scanned document/photographed image in ppt/pdf/jpeg format by EMAIL to nsd@ursc.gov.in with subject "Entry for Test of Scientific Temper"
4	Phase-2: Presentation	Feb 22, 2022 2:00PM to 5:00PM	Participant will be instructed to present their entries. Presentations/explanation will be limited to 5 minutes, followed by Q&A round for 2 minutes.
5	Results	Feb 25, 2022 10:AM	Intimation on NSD web-page

For details and updates keep checking the NSD web-page.

Focal Pont for Clarifications:
Convener: Jothy Soman
Phone: 080-2508-3228/3222
E-mail: nsd@ursc.gov.in

Event -5
Science Quiz

3 Students per Team and 1 Team per School.
Category-C: VIII to X Std.

Date: **23 Feb, 2022**

Time: **1000 Hrs to 1700 Hrs (Phase-1: 1000 to 1100; Phase-2: 1400 to 1700)**

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Event Details:
This event aims at inculcating interest in science and technology amongst students and also assessing the knowledge about basic science and latest technologies.

Instructions/ Notes:

1. The quiz will be conducted in two phases.
2. The first phase (Phase-1) will be the preliminary round. This will be in the form of online written.
3. The top six teams of the preliminary round will be shortlisted for final round (Phase-2).
4. The final round will be in online oral quiz form. The topics covered will be from various facets of science

Focal Pont for Clarifications:
Convener: Anuj Nandi
Phone: +919972718258
E-mail: nsd@ursc.gov.in

Event -6
Teacher's Event

1 Teacher per School.

Date: **24 Feb, 2022**

Time: **1000 Hrs – 1700 Hrs**

(Competition/Events links will be communicated to Head of the school by E-mail. Please report at this link before 30 mins.)

Event Details:

Science, Technology, and Innovation (STI) are rapidly and continuously evolving and the today's generation needs to be equipped with the advances in knowledge and technologies. The trend of world education has shifted to a more explicit focus on 21st Century Skills. The popularity of technology is dramatically changing the skills needed in the global market, from routine skills to performing tasks that require complex, high-level capabilities. This movement from physical tasks to creative, strategic, innovative and analytical thinking is affecting what students need to master in school. Hence, it is appropriate to bring in the thoughts of teachers to utilize the future STI and its implementation in Indian education system.

The focus of the presentation has to be on the utilisation of Science & technology in the field of education for self-learning, skill upgradation of students and teachers, bridging the gap between knowledge and applications and role of science and technology for sustainable development in India. All participants pre-selected by the head of the school (one teacher per school) are requested to send an abstract of their presentation, with a maximum of 5 slides. Selected participants will be allowed to present for 8 minutes with an additional 2 minutes for discussion and Q&A.

Topics for Presentation (Select any one):
1. Self-learning and skill upgradation for students and faculty using Science & Technology
   ವಿದ್ಯಾರ್ಥಿ ಮತ್ತು ಅಧ್ಯಾಪಕರ ಸ್ವಯಂ ಕಲಿಕೆ ಮತ್ತು ಕೌಶಲ್ಯ ಅಭಿವೃದ್ಧಿಗೆ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನದ ಬಳಕೆ
2. Role of Science, Technology and Innovation for Sustainable Development in India
   ಭಾರತದಲ್ಲಿ ಸುಸ್ಥಿರ ಅಭಿವೃದ್ಧಿಗಾಗಿ ವಿಜ್ಞಾನ, ತಂತ್ರಜ್ಞಾನ ಮತ್ತು ನವೀನ ಅವಿಷ್ಕಾರಗಳ ಪಾತ್ರ
3. Addressing the gap between knowledge and application for Sustainable Future using Science & Technology
   ಸುಸ್ಥಿರ ಭವಿಷ್ಯಕ್ಕಾಗಿ ಜ್ಞಾನ ಮತ್ತು ಅದರ ಅಳವಡಿಕೆಯ ನಡುವಿನ ಅಂತರವನ್ನು ನಿವಾರಿಸಲು ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನಗಳ ಬಳಕೆ

Instructions/ Notes:

1. This is an individual event. Medium of presentation will be English/Kannada.
2. The slides shall be in PDF format (Audio visuals if any, separately to be attached).
3. PDF presentations of abstracts (max. 5 slides) can be sent to the below mentioned E-mail id by 14th February with details of the teacher's full name, school address & their e-mail ID.
4. While evaluating the abstracts, emphasis will be given for innovative ideas, motivating skills and content.
5. Selected teachers will be intimated via e-mail by 17th Feb, 1700 Hrs.
6. Selected teachers have to prepare presentations with 15 slides (max.) & send to us by 21st Feb (by 1700 Hrs).
7. Presentation skills, content, time management and answer to the questions asked by judges will be the main selection criteria for final awards.

Focal Pont for Clarifications:

Convener: A M Nagalakshmi
Phone: 080-2508-2623/ +919886641797
E-mail: nsd@ursc.gov.in

General Instructions

1. Registration for competitions/events has to be done by head of the schools at the following link: https://www.ursc.gov.in/nsd/userRegis.jsp
2. During Registration, Contact number along with the name of the participants may be given (optional).
3. In addition to registration, Head of the schools have to send PDF format scanned version of Signed copy of consolidated list of participants for all the events (format attached) by mail to nsd@ursc.gov.in.
4. All the Competitions/Events will be held in ONLINE mode only.
5. Participants name will be nominated only by Head of the school.
6. Head of the school may identify a teacher as a focal point for each of the events.
7. Competition/Events links will be communicated to Head of the school by E-mail.
8. Google Chrome browser shall be used for attending the events.
9. Number of participants for each event will be limited; hence selection of participants will be on first come first serve basis.
10. Selected participants details will be intimated to head of the schools.
11. Respective Heads of the schools will share the link with participants.
12. Only participants are allowed to join the link.
13. All students participating in the competitions will be given "**Participation Certificate**".
14. Participants have to join at least 30 minutes prior to start of the event.
15. A link of Valedictory Function will be communicated to Winners and their respective Heads of the school.
16. Names of the winners of various competitions will be announced during valedictory function.

Contact list- NSD-2022 Committee

Jasvinder Singh Khoral
Madhusudhana   C S
Nagalakshmi A M
Anuj Nandi
Jothy Soman
Kattimani S M
Katik A
Ramamurthy H
Sushma H R
Ankur Kushwaha

Note: **All correspondence should be made to the email id** nsd@ursc.gov.in **or visit** https://www.ursc.gov.in/science-promotion/nsd-2022/index.jsp

U R Rao Satellite Centre
NSD-2022

Participant's Details

Painting Competition (18 Feb, 1000 Hrs-1300 Hrs)					
Slno	Name	Contact number	M/F	Std.	Cat.
1.					A
2.					A
3.					B
4.					B

Test of Scientific Temper (Screening: 18 Feb, 1400Hrs-1430 Hrs, Final Round: 22 Feb, 1400 Hrs-1700Hrs)				
Category C : VIII to X				
Slno	Name	Contact number	M/F	Standard.
1.				
2.				
3.				

Extempore Science Elocution (21 Feb , 1000Hrs to 1700 Hrs)					
Slno	Name	Contact number	M/F	Std.	Cat.
1.					B
2.					C

Essay Competition (22 Feb, 1000Hrs-1300Hrs)					
Category B : V to VII					
Slno	Name	Contact number	M/F	Std.	Language
1.					Hindi
2.					Hindi
3.					Kannada
4.					Kannada
5.					English
6.					English

Essay Competition (22 Feb , 1000Hrs-1330Hrs)					
Category C : VIII to X					
Slno	Name	Contact number	M/F	Std.	Language
1.					Hindi
2.					Hindi
3.					Kannada
4.					Kannada
5.					English
6.					English

Science Quiz (23 Feb , 1000Hrs-1700Hrs)					
Slno	Name	Contact number	M/F	Std.	Cat.
1.					C
2.					C
3.					C

Teacher's Event (24 Feb , 1000 Hrs Onwards)			
Slno	Name	Contact number	M/F
1.			

Name and Address of the school:

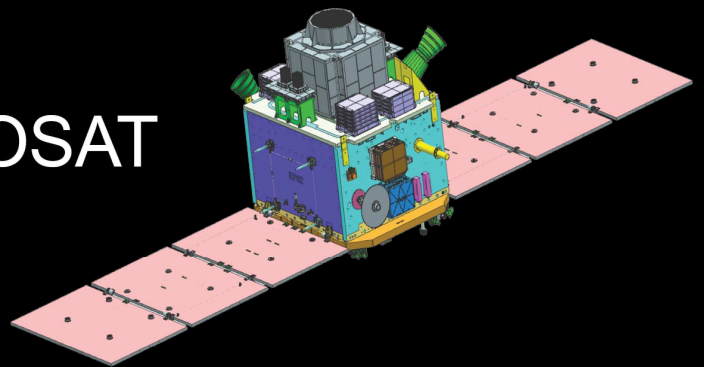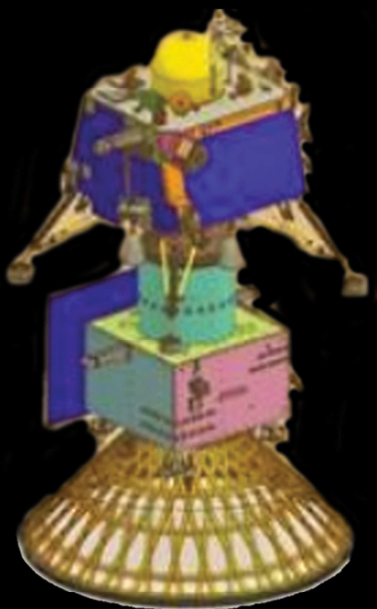

Principal's Signature & Seal

School Contact:	**Email :**

MOM

CHANDRAYAAN-2
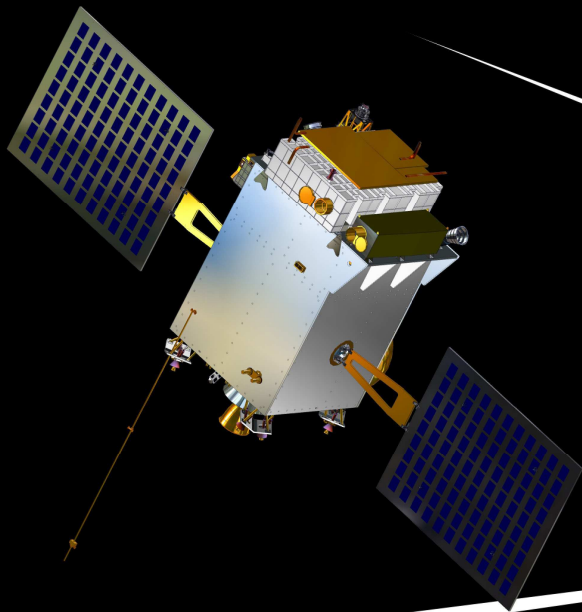
ADITYA

XPOSAT

CHANDRAYAAN-3