



## National Science Day 2021

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### Why in News

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National Science Day (NSD) is celebrated every year on 28th February to commemorate the discovery of the '**Raman Effect**' by Sir Chandrasekhara Venkata Raman, for which he was awarded the **Nobel Prize** in 1930. The first NSD was celebrated in 1987.

### Key Points

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- **Basic Objective:** To propagate the message of the importance of science and its application among the people.
- **2021 Theme:** 'Future of STI (Science, Technology and Innovations): Impacts on Education, Skills, and Work'.
- **Nodal Agency to Support Celebration: National Council for Science & Technology Communication (NCSTC)** of Ministry of Science and Technology.
- **Awards Conferred:**
  - National S&T Communication Awards, **Augmenting Writing Skills for Articulating Research (AWSAR) awards**, and **SERB Women Excellence Awards** and Rajendra Prabhu Memorial Appreciation Shield for outstanding work in science media and journalism.
  - The first-ever **National S&T Databases on S&T Awards** in India and Indian origin Academicians abroad, was released.

- **Augmenting Writing Skills for Articulating Research (AWSAR):**
  - AWSAR is an initiative that aims to disseminate Indian research stories among the masses in an easy to understand and interesting format.
  - **Objectives:**
    - To encourage youth pursuing higher studies to submit at least one story/article based on their research work.
    - Foster, strengthen and create scientific temper through popular science writing and creating a culture of science communication/popularisation among the scholars.
    - Recognize the initiative and output of researchers on the specific aspects of natural, physical, mathematical and information sciences, applied science, technology, engineering, and multi-disciplinary science.
    - Conduct training Workshops for Early Career Researchers (PhD Scholars and PDFs) in popular science writing.
- **Some Recent Developments:**
  - **National Research Foundation (NRF):** It is to be set-up as an autonomous body envisaged under the **New Education Policy (NEP) 2020**.  
It will look after funding, mentoring, and building 'quality of research' in India. The NRF aims to fund researchers working across streams in India.
  - **Draft National Science, Technology and Innovation Policy (STIP 2020)**.

## Raman Effect

- Raman is the inelastic scattering of a photon by molecules which are excited to higher vibrational or rotational energy levels. It is also called **Raman scattering**.
  - In simpler words, it is a **change in the wavelength of light** that occurs when a light beam is deflected by molecules.
  - When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam.
  - Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light and its presence is a result of the Raman Effect.
- The Raman effect forms the **basis for Raman spectroscopy** which is used by chemists and physicists to gain information about materials.  
Spectroscopy is the study of the interaction between matter and electromagnetic radiation.

**Source:IE**