

National Science Day

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Every year, as 28 February dawns, India pauses for a moment of reflection and quiet pride. The date recalls a luminous instant in 1928 when C. V. Raman announced the discovery of the Raman Effect—a revelation that not only transformed our understanding of light and matter but also earned the nation its first Nobel Prize in Physics in 1930. Nearly a century later, National Science Day continues to remind us that science is not merely a collection of facts or technologies, but a way of seeing the world—anchored in curiosity, questioning, and disciplined inquiry. For Vigyan 2047, the day is far more than a ceremonial observance; it is an invitation to introspect on where Indian science has come from, where it stands today, and where it must journey as the nation moves steadily toward its centenary of independence.

Raman's discovery was not simply an individual triumph etched into the annals of global science; it was a moment of national awakening. It proclaimed, with quiet confidence, that world-class science could emerge from Indian laboratories guided by originality, intellectual courage, and rigorous experimentation—even in the absence of lavish resources. That message resonates as powerfully today as it did in 1928. The Raman Effect is no relic of history. It lies at the heart of modern Raman spectroscopy, a technique indispensable to materials science, nanotechnology, pharmaceuticals, environmental monitoring, forensic analysis, and biomedical diagnostics. Each time these tools are employed in contemporary laboratories, Raman's legacy is gently but firmly reaffirmed. National Science Day, therefore, celebrates a living, evolving science—one that continues to generate knowledge, applications, and innovation.

Yet the relevance of National Science Day in 2026 stretches far beyond a single discovery. We live in an era where science and technology shape almost every dimension of human life—from public health and climate action to energy transitions, digital systems, and national security—while paradoxically, scientific facts are increasingly



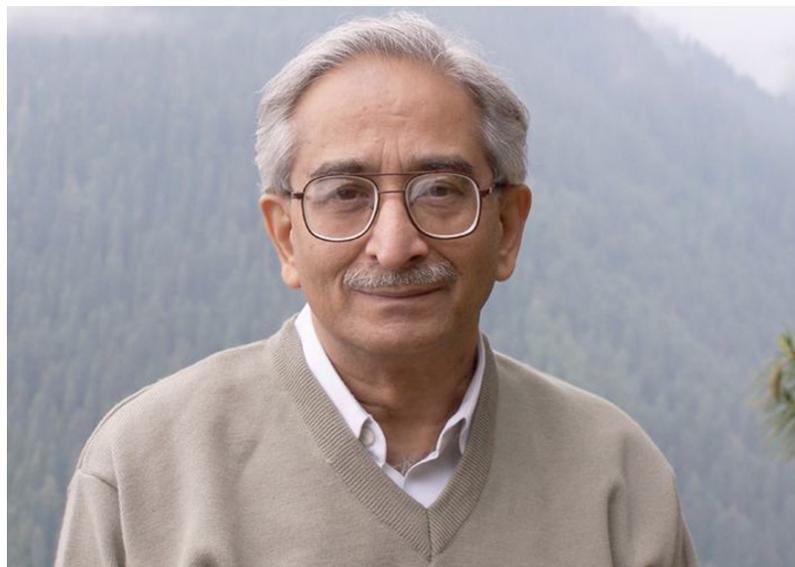
challenged by misinformation, half-truths, and spectacle. In such times, National Science Day becomes an annual reaffirmation of rational inquiry, evidence-based reasoning, and scientific temper. It reminds us that science is not the preserve of a few institutions or experts, but a shared societal enterprise whose strength lies in public understanding and trust.

Over the decades, this spirit has been sustained and amplified by a vast ecosystem of science communication endeavours in India. Popular science magazines have played a particularly enduring role in shaping scientific consciousness. Science Reporter and Vigyan Pragati nurtured generations of young readers, translating complex ideas into lucid narratives and cultivating curiosity beyond classrooms. In more recent years, Dream 2047 emerged as a forward-looking platform that linked science with national aspiration. Its silence today—following the closure of Vigyan Prasar, the national body that anchored much of India's science communication effort for over three decades—marks a poignant pause in this tradition. Yet from this pause has arisen Vigyan 2047, carrying forward the same mission with renewed resolve, reminding us that while institutions may close, ideas and commitments endure.

Beyond print, India's science communication landscape expanded dramatically across media. In less than four years, the IndiaScience OTT Channel created a remarkable archive of nearly 4,000 science films, taking scientific stories far beyond academic spaces and into homes and classrooms across the country. Complementing this visual outreach, All India Radio sustained year-round science programming in 19 Indian languages, ensuring that scientific ideas travelled deep into linguistic and cultural terrains where textbooks often do not reach. Alongside this, more than 400 popular science books and monthly magazines in 18 Indian languages built one of the world's most diverse reservoirs of public science literature—explaining everything from atoms to astronomy, microbes to monsoons, and climate change to space missions.

Science also stepped out of pages and screens into lived, collective experiences. VIPNET science clubs transformed students into explorers through hands-on learning and peer engagement. State Councils for Science and Technology, despite uneven capacities, mounted localised efforts—science fairs, exhibitions, workshops, and outreach programmes—demonstrating that science communication has always been as much a grassroots movement as a national one. The iconic Science Express, carrying exhibitions across thousands of kilometres by train, turned railway platforms into classrooms. Public engagements around solar eclipses replaced fear with understanding and wonder. Large-scale initiatives such as the India International Science Festival and Vigyan Sarvatra Pujyate—with 75 cities celebrating science simultaneously for seven days—created rare nationwide moments when science entered public imagination with confidence and clarity, generating what could only be described as a national roar for science communication, popularisation, and its extension.

Any reflection on this movement would remain incomplete without acknowledging the seminal contributions of Dr Narender Kumar Sehgal, a distinguished physicist-turned-scientific administrator at the Department of Science and Technology (DST), who went on to head the National Council for Science & Technology Communication (NCSTC) and to found Vigyan Prasar. Dr. Sehgal was among the earliest visionaries to recognise that scientific advancement without public understanding was both fragile and incomplete. More importantly, he translated this conviction into sustained institutional action. Under his leadership, National Science Day itself was formally conceptualised and institutionalised—not as a symbolic observance, but as a nationwide platform for engaging citizens with science.



Dr Narender Kumar Sehgal (1940–2020)

Dr. Sehgal spearheaded mass outreach programmes that were unprecedented in scale and ambition. The Bharat Jan Vigyan Jatha took science to villages and small towns through performances, demonstrations, and dialogue, demystifying science for ordinary citizens. The National Children's Science Congress empowered students to pursue inquiry-based learning rooted in local problems, fostering early scientific thinking beyond rote education. Science radio and television programmes reached households across linguistic and social boundaries, while publications such as Dream-2047 provided sustained intellectual engagement with science, society, and policy. Through Vigyan Prasar, Dr. Sehgal also nurtured networks of science clubs, communicators, teachers, and voluntary organisations, effectively creating a national ecosystem for science popularisation. Awarded the UNESCO Kalinga Prize for the Popularization of Science in 1991, he legitimised science communication as a serious national priority rather than a peripheral activity. Remembering him on National Science Day is therefore not an exercise in nostalgia, but a recognition that much of India's science communication architecture rests on foundations he so thoughtfully laid.

And yet, at the heart of this celebration lies an uncomfortable paradox. Even as India has made undeniable strides in scientific research and technological capability, science communication, popularisation, and extension remain chronically under-resourced and undervalued. There is a visible and worrying shortage of high-quality, engaging learning aids capable of igniting curiosity—especially among school students, first-generation learners, and the wider public. Beyond a handful of institutions and

National Science Day: Theme Timeline (1987–2025)

1987 – Science & Technology for National Development
1988 – Science & Technology for Environmental Protection
1989 – Science & Technology for Development of Rural Areas
1990 – Science & Technology for Eradication of Poverty
1991 – Science & Technology for Women
1992 – Science & Technology for Development of New Materials
1993 – Science & Technology for Food, Nutrition & Environment
1994 – Science & Technology for Development of Human Resources
1995 – Science & Technology for Industrial Development
1996 – Science & Technology for National Prosperity
1997 – Science & Technology for Information & Communication
1998 – Science & Technology for Health Care

Turn of the Millennium

1999 – Our Changing Earth
2000 – Recreating Interest in Basic Science
2001 – Information Technology for Science Education
2002 – Wealth from Waste
2003 – 50 Years of DNA & 25 Years of IVF: The Blueprint of Life
2004 – Encouraging Scientific Awareness in Community
2005 – Celebrating Physics

2006 – Nurture Nature for Our Future
2007 – More Crop per Drop
2008 – Understanding the Planet Earth
2009 – Expanding Horizons of Science

Sustainability & Inclusion Era

2010 – Gender Equity, Science & Technology for Sustainable Development
2011 – Chemistry in Daily Life
2012 – Clean Energy Options & Nuclear Safety
2013 – Genetically Modified Crops & Food Security
2014 – Fostering Scientific Temper
2015 – Science for Nation Building
2016 – Scientific Issues for Development of the Nation
2017 – Science & Technology for Specially Abled Persons
2018 – Science & Technology for a Sustainable Future
2019 – Science for the People, and the People for Science

Future-Focused India@2047 Phase

2020 – Women in Science
2021 – Future of STI: Impact on Education, Skills & Work
2022 – Integrated Approach in Science & Technology for Sustainable Future
2023 – Global Science for Global Wellbeing
2024 – Indigenous Technologies for Viksit Bharat
2025 – Empowering Indian Youth for Global Leadership in Science & Innovation for Viksit Bharat

sporadic initiatives, meaningful outreach often depends on individual passion rather than sustained systemic support. As a result, science too often remains confined to textbooks, examinations, or elite spaces, instead of becoming a vibrant part of everyday cultural life.

The true strength of National Science Day lies precisely in its potential for extension—taking science beyond laboratories, universities, and metropolitan centres into classrooms, community halls, informal learning spaces, and digital platforms, in languages and forms people can relate to. Raman himself believed deeply that science must belong to society, not merely to specialists. To honour that belief in spirit rather than symbolism, we must acknowledge that without continuity, institutional stability, and serious investment in learning resources and communicators, we risk alienating not just future scientists but a scientifically informed citizenry.

As India looks toward India@2047, National Science Day must be seen not as a one-day ritual, but as a strategic and moral instrument—one that connects past excellence with present responsibility and future ambition. It reminds policymakers that investment in science cannot stop at laboratories and infrastructure;

it must extend to communication, education, and outreach. It reminds educators that curiosity and imagination are as vital as curriculum and assessment. And it reminds all of us that a nation's scientific strength is ultimately measured by how deeply science is woven into its social fabric.

For Vigyan 2047, National Science Day is therefore both a celebration and a call: a celebration of Raman's light—first scattered in a Calcutta laboratory in 1928—and a call to ensure that this light travels far beyond journals and research papers, into classrooms, communities, and everyday conversations. Our quiet anguish over the present state of science communication is born not of despair, but of conviction: that India can, and must, do better. The truest tribute to Raman—and to pioneers like Dr. Narendra Kumar Sehgal—lies not merely in remembrance, but in sustaining a culture of curiosity, communication, and public engagement that allows science to fulfil its highest purpose in service of society. ♦

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