

Meet Arvind Gupta, a toy-maker who proved science is fun

- Aniruddha Dhar, [Hindustan Times](#), New Delhi
- Updated: Aug 19, 2015 15:59 IST



File photo of Arvind Gupta, the toy-maker who inspired generations to learn science via innovative new ways. (HT Photo)

Long before Aamir Khan's 3 Idiots and Taare Zameen Par raised questions about the efficacy of the 'chalk and talk' teaching system, a khadi kurta-clad man would appear on Doordarshan every Sunday and tell us how matchboxes, straws, rubber sandals and even safety pins could be used to make complex science theories easy and fun to learn.

Meet engineer-turned-educationist Arvind Gupta, who has been inspiring generations of students to learn science with their own hands on 'Tarang', the DD show, since the 1980s.

Gupta, who started toy-making a decade before he appeared on the science show, has made

6,200 short films on toy-making in 18 languages in the last 35 years that are available on his [website](#) and YouTube, all to prove a point that science cannot be learnt by rote, mugging up definitions and formulae.



Arvind Gupta demonstrating one of the many experiments which make science fun to learn. (HT Photo)

Often referred as India's biggest science toy-maker, Gupta's videos crossed 40-million viewership mark on YouTube recently.

"I have seen hundreds of science labs in renowned schools where burettes and test tubes are locked in cupboards and gathering dust. The problem is that managements and teachers have never dirtied their hands doing experiments," said Gupta, who has conducted workshops in over 3,000 schools and colleges across the country in the past three decades.

An IIT-Kanpur graduate, this Gandhian had left a plush job in Tata Motors in 1975 and took up a challenging job to help children become scientists again.

The change came in 1978, when Gupta attended a science teaching programme in Madhya Pradesh where he first made simple toys and educational experiments using locally available material. The toys, he found, fascinated children, and from here on Gupta went on to make these as the hallmark of his movement of popularising science.



Arvind Gupta has made 6,200 short films on toy-making in 18 languages in the last 35 years. (HT Photo)

In the years to come, Gupta and his team at the children's science centre in the Savitribai Phule Pune University, where he worked for 11 years, made hundreds of toys to simplify the complex concepts of gravity, magnetic field, friction, electricity, Newtonian laws among several other things. They not only held weekly classes for school students, but also uploaded the videos of every toy being made there.

“All these toy-making videos (on YouTube) are in the public domain and we have no copyright issues, so that they help even the poorest children on the earth,” added Gupta, who recently quit the job after being diagnosed with prostate cancer.

But this sexagenarian's voice still brims with irrepressible excitement as he goes on to talk about his favourite 'matchstick models'.

Born to a humble business household in Bareilly, Gupta, whose parents have never visited school, is still working to make education more accessible. He has so far uploaded around 4,000 books and articles on his website. Even with his failing health, at present he is busy translating books in Hindi. He has already translated over 175 books till date.

This veteran educationalist has not only inspired thousands of students, academicians and also some big toy manufactures of the country.

Sudarshan Khanna, former chairman of education and research at the National Institute of Design (NID) in Ahmedabad, admits to have been inspired by Gupta's "indigenous, innovative and freely available art".

Impressed by Gupta's work, Khanna, in 2001, set up a toy innovation centre at the NID and followed by a full-fledged post graduate programme in toy and game design in 2002.