Cover Story

Science & Innovation Competitions & Awards

Have you ever looked at a problem in your school or neighborhood and thought, "I wish I could fix that"? Or perhaps you've imagined building a robot, designing an app, or discovering something new in space? If so, then science and innovation contests are the perfect launchpad for your ideas.

Across India, thousands of young students are stepping beyond textbooks to explore, invent, and solve real-life challenges. These competitions are not just "events" – they are exciting journeys where creativity meets science, and imagination transforms into innovation.

Whether you are in Class 6 or Class 12, whether you love robotics, environmental science, coding, or space, there is a competition waiting to bring out the innovator in you.

Welcome to the world of Indian science and innovation contests, a world where curiosity is celebrated, ideas are transformed and young scientists like you shape the future.

Why Science & Innovation Competitions Matter

Science contests are not about memorising formulas or answering trick questions. They encourage you to **think**, **explore**, and **create** – the three pillars of real scientific learning.

Here's what participation gives you:

- **Hands-on learning**: Turning ideas into models, prototypes, apps, or research projects.
- **Teamwork & leadership**: Collaborating, brainstorming, and dividing tasks creatively.

- **Exposure & recognition**: Opportunities to meet scientists, visit research labs, and represent India internationally.
- Confidence & communication: Presenting your ideas to judges builds public speaking skills.
- 21st-century skills: Creativity, critical thinking, design thinking, problem-solving, and scientific temperament.

Most importantly, these competitions help you connect your knowledge with real-life applications; whether it's saving water, improving health, reducing plastic waste, or building a smart device for daily problems.

Major Science & Innovation Contests in India

Let's explore the biggest and most exciting competitions happening right now — each offering a unique way for students to explore science and innovation.

1. INSPIRE Awards - MANAK

Organised by: Department of Science & Technology (DST), Govt. of India
Target Group: Classes 6-10

The INSPIRE MANAK Awards aim to identify India's future innovators early.

million minds augmenting national aspiration and knowledge
inspire manak

Students submit **original ideas or inventions** that solve everyday problems, from farming challenges to home safety, healthcare, energy, and environmental protection.

Selected ideas receive **₹10,000** to build a working prototype. Projects then progress through **District → State → National** exhibitions, giving students real exposure to scientists and experts.

This is one of the largest innovation platforms in India, empowering lakhs of students every year.

2. AIM Viksit Bharat Buildathon

Organised by: Atal Innovation Mission, NITI Aayog
Target Group: School & college innovators, ATL & non-ATL teams

Viksit Bharat Buildathon

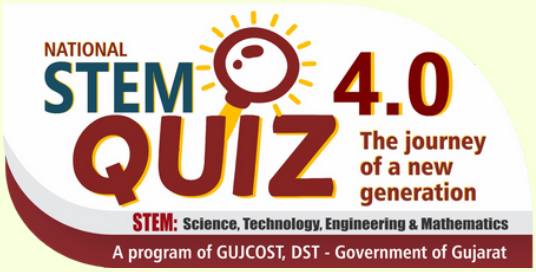
This national tech challenge encourages students to build solutions that support India's development goals.

Participants work on pressing themes such as **AI for governance, health & nutrition, digital payments, agriculture, clean energy, and urban innovation.**

Teams get mentorship, access to tools, and opportunities to convert ideas into deployable products. Projects with high impact stand a chance to scale across the country — making it a space where ideas can become reality.

3. GUJCOST National STEM Quiz

Organised by: Gujarat Council on Science & Technology
Target Group: Primarily school students from Classes 6–12



This quiz fuels curiosity in Science, Maths, Technology, and Space through exciting question rounds and rapid-fire challenges. It helps students strengthen fundamentals in physics, chemistry, biology, astronomy, innovation, and everyday science applications.

Teams compete at the district and state levels before reaching the national platform. A great choice for learners who enjoy thinking fast, reasoning logically, and learning beyond textbooks.

4. Atal Tinkering Lab (ATL) Innovation Marathon

Organised by: Atal Innovation Mission, NITI Aayog
Target Group: Students of ATL schools (mostly Classes 6–12)

ATLs are creativity hubs where students experiment with:

- Robotics
- IoT
- Drones
- 3D printing
- AI and machine learning
- Sensors and electronics

The ATL Marathon challenges students to build tech-based solutions for themes like clean energy, agriculture, education, mobility, and community problems. Winners receive awards, mentorship, and even **internships** with world-class organisations.

5. Vidyarthi Vigyan Manthan (VVM)

Organised by: Vigyan Prasar, NCERT & Vijnana Bharati
Target Group: Classes 6–11

VVM is a digital-age science examination that promotes:

- Scientific temperament
- Knowledge of Indian scientists
- Logical thinking
- Real-world application of science

The competition includes an **online exam**, followed by **state-level camps** and a **national-level convention**.

6. GYS Avishkar Awards

Organised by: GETA Young Scientist Program
Target Group: Classes 6th to 10th

These awards celebrate creative solutions to everyday problems, like it's water-saving devices, affordable tools for farmers, low-cost tech innovations or sustainability ideas.

Selected students receive national recognition to scale their innovations further. The competition inspires young minds to invent boldly and think practically.

7. ISRO Young Scientist Program - YUVIKA

Organised by: Indian Space Research Organisation (ISRO)
Target Group: Class 9 students

YUVIKA is a dream programme for space lovers! Selected students attend a **two-week residential program** at ISRO centres, where they learn about:

- Space science
- Satellite building
- Rocket technology
- Astronomy
- Hands-on experiments

Selection is based on academics, quizzes, sports, and extracurricular achievements. It is one of India's most prestigious STEM learning opportunities.

7. National Children's Science Congress (NCSC)

Organised by: National Council for Science & Technology Communication (NCSTC), DST
Target Group: 10–17-year-olds

NCSC is famous for its motto:
"Science for the People and People for Science."

Students investigate **real-life community problems** through scientific methods — like water scarcity, pollution, agriculture, or biodiversity. The idea is to learn science by doing it in the real world. It's one of India's most respected research platforms for school students.

International Competitions (Open to Indian Students)

India's best young minds also shine at global platforms. Here are the biggest ones open to Indian school students:

1. Google Science Fair

A fully online global competition where students submit projects that solve real-world problems using science or engineering. It is accessible, flexible, and perfect for self-driven innovators.

Who can apply: Ages 13–18
Why participate: Scholarships, mentorship, and global visibility.

2. Breakthrough Junior Challenge

Students create a short, creative video explaining a complex scientific or mathematical concept. It's a unique challenge that blends science with storytelling.

Who can apply: Ages 13–18

Why participate: One of the world's highest-value scholarships: **$250,000** for the student and a **$100,000** science lab for their school.

3. Regeneron ISEF (USA)

The world's largest pre-college science competition. Students present high-level research or engineering projects.

Entry from India: Through IRIS National Science Fair

Why participate: Global recognition, interaction with scientists, and scholarships up to **$75,000.**

4. GENIUS Olympiad

Focuses on environment-related projects across science, robotics, art, or literature. Hosted by the Rochester Institute of Technology (RIT).

Who can apply: High school students

Why participate: International medals, certificates, cultural exchange, and potential scholarships.

5. Technovation Girls

Teams build mobile apps and AI-based solutions for community problems. It is one of the most empowering global competitions for young girls in technology.

Who can apply: Girls aged 10–18

Why participate: World-class mentorship, global pitch events, and awards that encourage tech-based social impact.

6. International Junior Science Olympiad (IJSO)

A prestigious competition for science-loving students aged 14–15, testing physics, chemistry, and biology through conceptual and analytical questions.

Entry from India: Through HBCSE Olympiad Programme

Why participate: Training camps, global exposure, and India's consistent track record of winning medals.

What Judges Look For (Common Evaluation Criteria)

Across competitions, judges look for:

- Originality & creativity
- Scientific method & technical understanding
- Real-world relevance
- Working model, prototype, or experiment
- Clarity of presentation & documentation
- Social or environmental impact

Even a simple idea can win if it is unique, meaningful, and well-explained.

How These Contests Shape Young Innovators

Science contests play a vital role in nurturing India's future scientists and innovators. They help.

- Spark curiosity and creativity
- Encourage problem-solving
- Discover hidden talents
- Promote innovation culture in schools
- Build scientific temper (as emphasised by Article 51A(h) of the Constitution)
- Make learning meaningful and applied
- Boost confidence and communication skills
- Involve teachers, parents, and communities
- Create future researchers, engineers, and entrepreneurs

In short, these competitions turn classrooms into laboratories of imagination.

Easy Tips for Students to Succeed

Here are simple ways to shine in any science or innovation contest:

Here are simple ways to shine in any science or innovation contest:

1. **Pick a meaningful problem** - something you care about.
2. **Be original** - think beyond what others have done.
3. **Research deeply** - read, observe, ask questions.
4. **Document everything** - keep notes, drawings, photos.
5. **Build a simple model** - even a basic prototype works.
6. Explain clearly - tell the story behind your idea.
7. **Practice your presentation** - confidence matters!
8. **Work well in teams** — share tasks and help each other.
9. **Seek feedback** — teachers and mentors can guide you.
10. **Enjoy the journey** — learning is the real reward.

Remember: Every great scientist started with curiosity.

Conclusion: Competitions Are Gateways to a Brighter Future

Science and innovation contests are more than just competitions; they are platforms of possibility. They empower students to imagine bold ideas, experiment fearlessly, solve real-world problems, and gain confidence to pursue careers in science, technology, engineering, research, and innovation.

Whether you win a medal or not, the experience transforms you. You begin to see the world differently, as a place full of problems waiting for your solutions.

So dream big. Build bravely. Think differently. The next big innovation might just come from you, and these contests could be your first step toward changing the world.