

**Dear  
Educationalists !  
Students !!  
Parents .... !!!**

- **Did you think at any given time that your institute could produce a young scientist?**
- **Do you know, what the prerequisites are to claim aid for a poised scientist?**
- **Have you ever tried to tap the latent and inherent talent of your wards any time?**
- **Do you believe only marks secured are the yard stick for intelligence?**
- **Why we are not able to produce a noble laureate in science after Sir CV Raman?**
- **Why the number of scientific research papers presented in India is on a decline?**

If any of the above questions made you to think and if you have the determination to produce a young scientist ..... Please come forward and join hands with **scientificstudents.com's** brain child

# Young Scientist Program (YSP)

*“ An investment in knowledge always pays the best interest”*

*- Benjamin Franklin*

*“ The important thing is not to stop questioning, not to stop research”*

*- Albert Einstein*

*“ Scientists catch the seeds called ideas / thoughts and turn them to trees”*

*“ If we stop doing fundamental research, the "Well" that supplies the applications will eventually run dry. In other words, without continuing fundamental research, the scope for new technologies will shrink”*

*- Ernest Eliel, President of the American Chemical Society*

*“ We can say that knowledge is not information. Knowledge cannot be ‘given’ to a child, but is self-driven and is acquired through experience. It can only be acquired when child is able to make sense of new information. The act of acquiring knowledge in the context of how we have defined knowledge entails the act of processing information and feelings, processes that require her to think, reflect, abstract, intuit and not just memorize. And it is this act that education aims to provide impetus to ”*

*- AP State curriculum Frame Work*

***“Per capita, Indian Institutes of Technology have produced more millionaires than any other undergraduate institution”***

**- Bill Gates**

***“The scientist is not a person who gives the right answers; he's the one who asks the right questions”***

**- Claude Levi Straus**

***“Learning gives creativity, Creativity leads to thinking” !***

***“Thinking provides knowledge, Knowledge makes you great” !***

***“Where there is righteousness in the heart, There is beauty in the character” !***

***“When there is beauty in the character, There is harmony in the home” !***

***“When there is harmony in the home, There is order in the nation” !***

***“When there is order in the nation, There is peace in the world” !***

***“Courage to think different, Courage to invent, Courage to travel into an unexplored path” !***

***“Courage to discover the impossible, Courage to combat the problems” !***

***Knowledge = Creativity + Righteousness+ Courage+ Indomitable spirit.***

**- Dr. APJ Abdul Kalam**

## **How do we ensure the child smiles throughout the education period ?**

This question was asked by Dr. APJ Abdul Kalam in inaugural address of National Conference on Enhancing Learning in Elementary Schools, July 23, 2004, at National Institute of Advanced Studies, Bangalore.

See how children smile. Whether the age is about six or 14-15 you see them smiling. Whether Nagaland, Karnataka, or any islands, our own islands, I find they are all the same children, same smile they have. Now how can we ensure that this smile continues among the children? What you have to do as an educationist? You know how the smile comes for the primary school children when they are learning but they don't know where they are heading, that is their secondary school and after secondary school, they have to fight for their 90-95 percent marks they have to score to get into professional colleges. So these children are not aware of that and that's why they smile now. But you know as responsible citizens of this country, as educationists our job is to see that smile continues throughout or at least through the education period. Can you do that? How can you do that?

ref: [http://www.developednation.org/issue/education/apjabdulkalams\\_speech.htm](http://www.developednation.org/issue/education/apjabdulkalams_speech.htm)

## Can we answer these questions?

Perhaps we need to work together to answer this question, i.e., how the smiles on children face vanish gradually from their ages 10-15years. As per as my observation, this is all because of the present marks based racing education system followed by several educational institutions. We need to prepare our children not for the world of the past, not for the world of ours, but for the world of theirs; the world of the future with problem solving skills. Let children be better learners through experience, collaborate with their classmates, and think creatively to come up with unique solution.

Dr Yellapragada Subba Rao believed that the scientist creativity and originality flow from the freedom of thought enjoyed by him.

You've probably never heard of Dr.Yellapragada Subbarao. yet because he lived you may be alive and well today. Because he lived you may live longer, wrote Doron K. Antrim in Argosy in April1950.

<http://www.ysubbarow.info/>

Every word of Antrim is true even today. Millions live longer and a more satisfying life because of folic acid vitamin, tetracycline antibiotics, and anti-filarial and anti-cancer drugs developed in the USA under the research and direction of this India-born biochemist turned wizard of wonder drugs.

I think if we can answer to the below questions, then probably we are all set for Dr A.P.J.Kalam Sir's question.

How do we make child blossom?

How do we make our students think better?

How do we make thinking Visible?

How do we make children learning Fun Filled?

How do we make inquisitive scientists?

How do we make innovative designers?

How do we make creative engineers?

How do we make better learners through experience?

How do we make them collaborate with their classmates?

How do we make children "Reach the unreachable"?

Hello!

This is twenty first century. Human beings have crossed many a huge mountains and valleys in the course of evolution. Starting from the invention of fire to conquering the space, overcoming all the deadly physiological, pathological, psychological hazards, all this was accomplished by the brain of scientists and inventors. The scientists and inventors grew from a free life of observation; investigation and practice of ones own ideas.

Now dear ones! Please think of my problem with which I am always tensed and squeezed. The schools which are the shapers of future beings are creating Engineers, Doctors, lawyers etc. But are we able to get one scientist who is for the development of our race on Earth? Please think of it. If we try to leave our children on their own experiments at least once in a decade, then we can come across such being who may give us a scientist like Y .Subba Rao from among us.

It has been several years after hearing the name of Y. Subba Rao. I wish we can at least hear the name of a person in the near future, though not immediate, if people like you think and encourage the society.

Please motivate the children to share every thing they have. Only then we will be able to use the nature and its resources very effectively and equally-though they are not evenly distributed on the earth.

So I request all of you to

1. Leave the children free
2. Happy
3. Sharing, observative and innovative.

Patriotism is not just Indians for India, Americans for America, Pakistanis for Pakistan, Libyans fro Libya. It is to protect the Universe with all the forms naturally.

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Thank you for your greetings. It's a pleasure to interact with you.

H.M.,

D.N.R.E.M.E.M.High School,Bhimavaram.

**This is where my responsibility came up to develop a Young Scientist programme (YSP) The right Program...The right school...The right choice**

[How it helps children, Parents, schools, nation and mother planet?](#)

**Do you want your school to be holistic, an exploration of the realms of knowledge? From the known to the unknown, leading to new discoveries and new creations...**

"Do not train a child to learn by force; but direct them to do it by what amuses their minds, so that you may be able to discover with accuracy the peculiar bent of the genius of each" -- Plato..Greek Philosopher

So, let us do together Creative construction, Explore the possibilities, Transform education into a joyful and enriching, and Creating celebrating children. Reach the unreachable, partnering in your progress, so let's start here to go any where. let's bring the smiles back, for always....[Contact for more..](#)

## **What are the Government initiatives in supporting Scientific Education?**

INSPIRE is one such a novel scheme and Scientificstudents.com will support institutions to achieve goals of the specific targets!

### **What is INSPIRE ?**

*"Innovation in Science Pursuit for Inspired Research (INSPIRE)" is an innovative programme sponsored and managed by the Department of Science & Technology for attraction of talent to Science. The basic objective of INSPIRE is to communicate to the youth of the country the excitements of creative pursuit of science, attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base.*

*A striking feature of the programme is that it does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent.*

### **Innovation in Science Pursuit for Inspired Research (INSPIRE)**

- *Government of India approved the INSPIRE Programme in November 2008 at a total cost of about Rs. 2000 crore in the 11th Five Year Plan Period and Hon'ble Prime Minister launched the Program on 13th December 2008. This scheme offers 10,000 scholarships every year @ Rs.80,000/- each for undertaking Bachelor and Masters level education in the Natural & Basic sciences.*
- *INSPIRE has 1) Scheme for Early Attraction of Talents for Science (SEATS), 2) Scholarship for Higher Education (SHE) 3) Assured Opportunity for Research Careers (AORC) with the following eligibilities.*
- *Toppers 1% in 12th standard at their respective Board Examinations, who opt to study only in Natural and Basic sciences at the B.Sc. or Integrated M.Sc. levels. (OR) IIT / AIEEE / AIPMT toppers 10,000 ranks, who opt to study only Natural and Basic sciences in any academic institute or university leading to UG / PG studies (OR) Students admitted to IISER, NISER, DAE-CBS, KVPY, NTSE, JBNSTS, Science Olympiad Medalists, opting to undertake courses in the Natural & Basic sciences leading to UG / PG studies*
- *For more details...<http://www.inspire-dst.gov.in/inspire.html>*
- *<http://pib.nic.in/newsite/erelease.aspx?relid=74512>*

### **Appreciations for INSPIRE scheme**

- A. **HER EXCELLENCY THE PRESIDENT OF INDIA, SHRIMATI PRATIBHA DEVISINGH PATIL**  
AT THE PRESENTATION OF THE INSPIRE AWARDS New Delhi, 16th August 2011

- *Dear Students, I am happy to be here at the function of "**Innovation in Science Pursuit for Inspired Research**" - INSPIRE scheme - launched in 2008, with an aim to attract talent among the youth of our country. INSPIRE Award scheme targets to encourage, over a five year period, one million children in the age group of 10 to 15 years to innovate small science projects. As I am aware that young students have contributed enthusiastically to the exhibition, and I look forward to seeing their creative works. I congratulate the award winning students.*
- **Hope:** *Those nations, which focus on Research and Development, and are able to make available its applications for use in various fields, will be the leaders of the future. You, young students, who I address today, could well be the science leaders of tomorrow.*
- **The Quality:** *I have always believed that children with their inquisitive minds and curiosity have a freshness of thinking. It is important that you retain this quality throughout your lives. An open mind is important for scientific inquiry.*
- **Background of great inventions:** *Apples had been falling on the ground since time immemorial. But, it was an apple falling on Isaac Newton, which triggered him to think as to why it was happening. Through his scientific investigation and work, the world understood the concepts of gravity and motion, which brought dramatic changes in the way we think and laid the foundation for modern engineering. Thereafter, the question asked was - what if there was no gravity? The answer led to scientists thinking about weightlessness, which could occur in space, beyond the field of Earth's gravitation. Albert Einstein was the scientist who then came forward with the theory of relativity. Thus, began the exploration of outer space. Then, the question rose why only exploration of space, why not go to the Moon and other planets? This resulted in man landing on the Moon in 1969 and now, we have a spacecraft on Mars, exploring the possibility of water and life on that planet. As young children, I am sure you would be inspired by such examples and will look for developing new ways of looking at matter and discover new things.*
- **Greatness of our motherland:** *India is a land of great intellectual accomplishments. The capacity of its people to think and explore in various disciplines of knowledge is tremendous. In mathematics and astronomy, physics and chemistry, medical sciences and surgery, civil engineering and architecture, Indians through the ages have made their contributions. I am sure each one of us is filled with pride, when we see an Indian satellite being launched successfully. Also, there are many other ways in which we are assisted by science and technology. The construction of railways, bridges, better industrial tools, better agriculture, all are part of the application of scientific knowledge in these fields. As young students I would encourage you to look at yourselves as future scientists of the country, who through their inventions and hard work, will contribute to India's growth. Your hands and minds would shape the future that awaits !*
- **Observation:** *Our education system should encourage children to observe carefully, and analyze everyday experiences and make them search for solutions to problems. Nothing is more fascinating than understanding the wonders of astronomy, the diversity of nature, the functioning of the human body, and the principles of how machines work, and how to make them more effective and efficient. Interactive methodology of teaching should be used to create and sustain the interest of children in science.*
- **Role of Elders:** *Parents and teachers can play a major role in creating interest in science. It is the method of teaching and creating the right conditions that will generate interest in the study of sciences in this country. Teachers should remember that it is not only what you teach, but how you teach that is important. There is a perception that science is a difficult subject. This is not necessarily so. Teachers have an obligation to dispel fear in*

*the minds of young children that science is a tough subject, and when they spot aptitude for science amongst students, should nourish these talents.*

- **Training / Infrastructure :** *One, as part of skill building, there should be professional training courses as well as refresher courses for teachers engaged in science education, given the rapid developments in this field. Secondly, adequate laboratory infrastructure in schools and colleges is essential for imparting good science education.*
- **Importance of women in science:** *I would like to specifically mention that girls should also be encouraged to take science courses. There are many women who have contributed to scientific discoveries and inventions. In fact, she is the only Nobel Prize winner who is the mother of another Nobel Prize winner - her daughter Irene Curie - who won the Prize for Chemistry. Our efforts to nurture women scientists must, however, begin at the school level itself. There could be a scholarship scheme for the girl child who wishes to pursue science courses. The second challenge is how to ensure that women, who study science, are able to pursue their career.*
- **What is said by our first Prime Minister:** *Pandit Jawaharlal Nehru, our country's first Prime Minister had said, "Science has always been and as long as it is alive, will be a quest for the unknown and that quest require not only certain training of mind and competence but a large measure of cooperation in order to work together." As young children you must understand the importance of values in life and of working together as a team. You must develop good habits, show commitment and dedication to your work; show respect to your elders, parents and teachers. Learn how to be compassionate and kind. These values will make you a good human being, which will contribute to the progress and welfare of society. This way you will not only be successful, but will have a meaningful life where you serve humanity at large.*

**B. HER EXCELLENCY THE PRESIDENT OF INDIA, SHRIMATI PRATIBHA DEVISINGH PATIL**  
AT THE INAUGURATION OF THE GOLDEN JUBILEE YEAR OF IITNew Delhi, 16th August 2010

- **Vision of First Prime Minister:** *The establishment of the education infrastructure in India, including the Indian Institutes of Technology, was the outcome of the vision of our first Prime Minister Pandit Jawaharlal Nehru, who looked at such institutions as essential for making a modern India. The IIT model seeks to provide a high calibre of education to its students, so that they become scientists and engineers comparable to the best in the world, as they explore the universe of knowledge through the prism of science and technology.*
- **Exclusiveness of IITs:** *As President, I have had the opportunity to participate in the Convocation of IIT Mumbai in its Golden Jubilee Year, as well as in the Golden Jubilee Celebrations of IIT Kanpur, and now of IIT Delhi. These are occasions to acknowledge the success achieved by the alumni of the Indian Institutes of Technology in technology and business, both within our country and abroad. They have done our country proud, validating the rationale for the establishment of the IIT system. During these milestone events, I have also emphasized that IITians, some of the best brains in the country, must be important partners and contributors to the journey of India to become a leader in the knowledge based society of the 21st Century. Educational institutions like IITs, are the crucibles where all these three forces can interface with each other. Here, young students while studying science disciplines must inculcate a good value system*



- **3 Important things:** *First value system based on harmony, tolerance and selflessness; secondly from our youth and; thirdly from innovations and inventions.*
- **Science & Technology to Society:** *Science and society have co-evolved and will continue to do so. Advances in technology have altered the manner in which we undertake activities and leading as a consequence to social changes. Looking back, it was one invention or another that triggered the movement of human beings from cave dwellers to village settlers and urban inhabitants. Since the Industrial Revolution, the pace of scientific and technological advancement has been tremendous. In our times, the network age of Information and Technology and the age of genetic engineering, biotechnology and nano-technology are proving to be revolutionary. Today, we seek responses to the challenges of food, water and energy security. This means addressing a wide spectrum of issues like foodgrain productivity and its proper distribution, water and energy conservation, cleaning of rivers and water recycling, reducing the cost of renewable sources of energy like solar and wind. We are looking at construction of energy efficient buildings and low cost housing to provide shelter to those who either have no house or are in urban areas living in slums. We are looking for ways to combat existing and new diseases. We are faced with climate change that is affecting the air we breathe and the weather patterns. Responses and solutions, to a large extent, lie in the domain of science and technology.*
- **Discoveries in Science & Technology for nation's Development:** *The Green Revolution, for example, resulted in enhanced agricultural productivity. As we look at the future, we need a second Green Revolution and novel thinking in rainfed farming is also very important for food security. We need engineering and management capabilities as we expand our infrastructure. We need environmentally friendly technologies. We need cutting edge technologies to be a leading nation. Scientific research requires dedication and commitment as well as availability of funds. Moreover, science has become increasingly interlinked and multi-disciplinary; it calls for multi-institutional and multi-country participation.*
- **Plight of Patents in India:** *Indian Institutes of Technology have a number of market patents awaiting registration and IIT Delhi filed 40 patent applications last year. I congratulate you on this. However, we must look at the global patent scenario to get a broader perspective. According to the World Intellectual Property Organization, in 2009, over 45,000 patents constituting almost a third of global patents in the year were filed by the US. Ranking fifth, China filed over 7,900 patents. India, on the other hand had only 761 applications. We have a long distance to cover.*
- **Technology must reach from Labs to Fields:** *Fruits of innovation is needs to reach as many people as possible. Inventions that have germinated in laboratories must be transmitted into the field to become agents of transformation. Therefore, efforts should be to build collaborations with institutions in different sectors of industry, agriculture and services, which in turn, must also be forthcoming in supporting new ideas and discoveries. I am told that IIT Delhi has created a special centre - the Foundation for Innovation and Technology Transfer for marketing these innovations. Such initiatives are steps in the right direction.*
- **Service to mankind:** *As no field of human activity has remained untouched by scientific and technological inputs, you must do your work as service to humankind. Also, it must never be forgotten that you are a part of society. Its welfare and your welfare are interlinked. A scientist or an engineer who is a good human being, with values of integrity and with a social conscious, will contribute far more to society. It is in returning back to society that a human being responds to their call of duty towards others. The recent announcement of some of the richest persons of the world to give the majority of their*

*wealth to philanthropy is a reminder of how our knowledge and other wealth can be more utilized for greater good.*

**Latest News of Indian Science Congress You can add here!!**