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SPEECH BY HER EXCELLENCY THE PRESIDENT OF INDIA, SHRIMATI PRATIBHA DEVISINGH PATIL AT THE PRESENTATION OF THE INSPIRE AWARDS

New Delhi, 16th August 2011



Ladies and Gentlemen,

Dear Students

I am happy to be here at a 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, to the study of science and to encourage them to pursue careers in this field, under its various components. Its largest module, the 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. I am told that this year more than two lakh students, from schools all over the country, participated in this scheme, and for the first time a National Level Exhibition of the school children is being organized. I am pleased to be here on this occasion, 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.

I am also informed that other components of the INSPIRE scheme have also taken off well - science camps for school students; scholarships for higher education at Bachelor and Master's levels; Research Fellowships, as well as post-doctoral research professionals in the age group of 27 to 32 years. These are all welcome steps and investments for the future. Programmes that encourage the pursuit of science disciplines are essential for a country of the dimension of India, which needs a large pool of scientists for meeting the challenges of the 21st Century, in which rapid transformation is taking place, much of which is an outcome of scientific breakthroughs. 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.

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. Great scientists have been those who have always been interested in a deeper understanding of how things happen, why things happen, and whether these could happen differently. I take you back to some simple observations that have resulted in major discoveries. Apples had been falling on the ground since time immemorial. But, it was an apple falling on Isaac Newton, that 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.

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, when we see Indian astronauts going into space, when we see the benefits brought to our country by the ICT sector. 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!

It is, however, a matter of concern that there has been a declining trend in our country in the number of students pursuing science. This must be reversed. India will require the support of science and scientists for its advancement. 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.

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.

I would like to mention two areas that require attention. 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.

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. Take the example of Madam Curie, famous for her pioneering research on radioactivity. She got the Nobel Prize first in 1903 in Physics and then again in 1911 in Chemistry. She created history by winning two Nobel Prizes in a span of 8 years. Her life can be an inspiration for women scientists. 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.

Science studies, of course, require a lot of discipline. But this is true of other fields also, if you are to succeed. There is a lot talent among tribal students. You should launch a special campaign to spot such talent. 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 requires 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.

With these words, I once again congratulate the Ministry of Science and Technology and encourage it to implement all components of the INSPIRE with rigour. I also congratulate all students who have won these awards today and, indeed, all those who have participated in INSPIRE.

Thank you.