

**GOVERNMENT OF INDIA
HUMAN RESOURCE DEVELOPMENT
LOK SABHA**

STARRED QUESTION NO:505
ANSWERED ON:29.04.2015
PROMOTING SPACE EDUCATION IN SCHOOLS
Chaudhary Shri Santokh Singh

Will the Minister of HUMAN RESOURCE DEVELOPMENT be pleased to state:

- (a) whether school students normally do not evince much interest in aeronautics, astrophysics, astronomy and other space education subjects;
- (b) if so, the details thereof and the reaction of the Government thereto;
- (c) whether the Government intends to create awareness among middle and secondary school level students in the country to promote careers in these subjects; and
- (d) if so, the details thereof along with the initiatives taken to promote space related education at school level?

Answer

MINISTER OF HUMAN RESOURCE DEVELOPMENT (SHRIMATI SMRITI ZUBIN IRANI)

(a) to (d) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO THE PARTS (a) TO (d) OF LOK SABHA STARRED QUESTION NO. 505 FOR ANSWER ON 29.04.2015 REGARDING PROMOTING SPACE EDUCATION IN SCHOOLS ASKED BY SHRI SANTOKH SINGH CHAUDHARY.

(a) & (b) Central Board of Secondary Education (CBSE) has not conducted any survey about students showing interest in Aeronautics, Astrophysics, Astronomy and other space education subjects as these are highly specialized subjects offered by the universities in post-graduate classes and in engineering based courses. However, the curriculum prescribed by the CBSE adequately inspires students for studying physics and engineering courses including Aeronautics, Astrophysics, Astronomy and other space education subjects.

(c) & (d) CSBE has taken a number of steps to arouse interest in the subject of Science at middle and secondary school stage which may lead to promote careers in these subjects in later life. These are:

The Board has brought out supplementary material, namely, "Science is Doing" for Class VI, "Learning by Doing" for Class VII and Class VIII to encourage activity based teaching learning processes in the classroom.

Greater weightage has been assigned to practical work in Science at Secondary stage.

To promote creativity and innovativeness in the learners, Regional level and National level Science exhibitions are organized by the Board for CBSE affiliated schools every year. Science Exhibition 2014-15 included a Sub Theme 'Landmarks in Science and Mathematics', one of the sections of which incorporated the Scientific and mathematical applications that have a wide ranging impact on issues such as agriculture, energy, health, environment, space, industry, communication, education etc.

National Council of Educational Research & Training (NCERT) has incorporated age appropriate space related contents at various places in Science, Social Science and Language textbooks.

In science textbooks chapter like 'Stars and Solar System' in class VIII; a chapter titled 'Gravitation' in class IX science textbook; another chapter titled 'Gravitation' in class XI Physics textbook (Part I) have been given.

Class VI English textbooks and class VII Science textbooks include chapter/information with regard to Kalpana Chawla, an Indian Astronaut.

Class XII Geography syllabus include a complete unit on 'Field Study or Spatial Information Technology'.

Ministry of Human Resource Development has drawn up Rashtriya Avishkar Abhiyan to motivate and encourage children of the age group 6-18 year in science, mathematics and technology through observation, experimentation, inference drawing, model building, etc. both inside and outside the classroom activities and processes. It seeks to create curiosity, excitement and a spirit of innovation and exploration amongst school children in the study of Science and Mathematics.