Science & Technology Class 8



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Preface

Renewal and amendment of syllabus and preparation of textbooks is a part of educational process. In this process SCERT Chhattisgarh, Raipur has amended the syllabus and prepared science textbook "Science and Technology" for class six in 2003-04. Text books for classes seven and eight were prepared in 2004-05 and 2005-06 repectively.

The objective of these books is not to load the students with scientific informations but to help them to understand the fundamental concepts of science around them. With the development of technology it is necessary to help students to acquire skills and knowledge which will help them to connect science and technology to society.

In the discussions on education, the over burdened school bag is a thought provoking matter. It is even the main point in the report of Yaspal Committee.

These books are written to obtain these objectives. By studying these books, the students would have an opportunity to understand and analyse the different new experiences in their daily life. Also they could have the opportunity to understand more clearly the principles by simple activities. They would also develop the ability to understand and analyse the environmental and health topics. This will help to develop such views in them which will motivate them in search and research.

Right to Education Act 2009 gives emphasis on imparting quality education to children.NCERT, New Delhi has developed class wise, subject wise learning outcomes and pedagogical processes for classes I to VIII which will help to achieve the objectives of all-round development of children.So, textbook for the session 2018-19 have been made contextual and significant which will provide more opportunities to achieve desired outcomes. We hope that textbooks will be helpful for students and teachers to achieve these goals.

In the development of this book, we have got the help and guidance of many teachers both from government and private institutions, professors of colleges and agriculture university, NGOs and learned citizens. We express our heartiest gratitude to all of them. Any suggestions for amendment of this book are invited to make it better and more useful for the children.

Director

State Council of Educational Research and Training Chhattisgarh, Raipur

PRESTIGIOUS CONTRIBUTION BY INDIANS IN THE FIELD OF SCIENCE

You must have read about some eminent scientists in class 6 and 7, who have contributed to make science useful to the society, not only in India but throughout the world. In this series, this year also we are providing some short biographies of some scientists, whose contribution would always remain a debt to the scientific world.

1. VARAHMIHIR

He was born in 499 AD. He was a resident of a village named Kaphith, near Ujjain. He was so impressed by the great astrologer and mathematician Aryabhatt, that he made astrology and astronomy his aim of life. As Aryabhatt, he also believed that the Earth is round. In the field of science, he was the first to point out that there is some particular force which attract the things to the ground. Now this force of attraction is known as gravity.

He has also given important hints on environmental science, hydro, geology etc. According to him plants and termites indicate the presence of underground water. Now a days scientists are working on this. The books written by Varahmihir is a gemstone in the field of astrology.

2. BRAHMAGUPTA

He was born in 518 AD in Gujarat. He was an eminent mathematician. He was the first to give the methods for the use of 'zero' and linear equations. He was the founder of the department of statistical analysis. That is why, the great mathematician Bhasker has given him the title of 'Ganaak Chakra Chudamani'. It was Bhahmagupta who explained the differences of Maths and Algebra and also wrote a book on the use of Algebra in calculations of Astronomy.

3. T.R. SHESHADRI

Tiruvenkat Rajendra Sheshadri was born in 1900 in Kullilalai, in Tamilnadu. He is one of the pioneers of organic chemistry in India. By his experiments on plants, many chemical compounds present in them have been discovered. He was considered an expert in Chemistry of Algae. His research theories have great importance in



agriculture and medical science. He was awarded the Nobel Prize for his research work.

4. R.C. BOSE

Ramchandra Bose was born in 1901 in Hoshangabad, M.P. He was an expert in Mathematics and Statistics who discovered a new code for telecommunication. With this, code messages with least or no errors could be sent. For this he was awarded the Best Scientist in America.

5. PANCHANAN MAHESHWARI

He was born in 1904 in Jaipur, Rajasthan. He studied Botany, Specializing morphology and the anatomy of flowering plants and embryology. He classified the plants on the basis of their growth and development. He become famous as an 'Embryologist'. His books are studied in School, Colleges and Universities even today.

6. S. CHANDRASHEKHAR

Subramaniam Chandrashekhar was born in 1910 at Lahore. He received the Nobel Prize for Physics in 1983. Along with his studies on astronomy he has written two excellent books also. S. Chandrashekhar was a world famous physicist, astronomist and also a mathematician.

7. JAYANT VISHNU NARLIKAR

There are numerous stars, galaxies and heavenly bodies in this universe. How were they formed? Scientists has been researching on this for hundreds of years. Jayant Narlikar born in Kolhapur, Maharashtra in 1938 was the astronomist and physicist who worked on a new principle to answer this question. According to him matter is scattered through out the universe in form of stars, galaxies and other heavenly bodies. This principle is considered as important as Einstein's' theory of relativity. That is why he is called the Einstein of India.









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