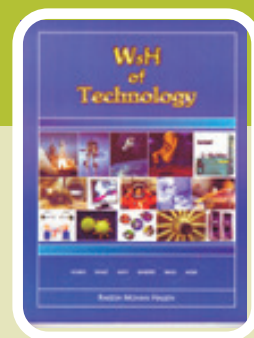
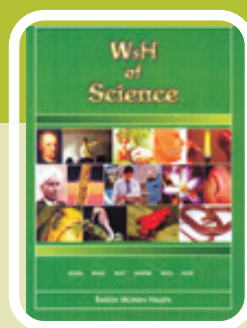


Book Review

Title	1. W₅H of Science 2. W₅H of Technology
Author	Rakesh Mohan Hallen
Publisher	Vigyan Prasar A-50, Institutional Area Sector 62, Noida 20107
No. of Pages	176 and 184
Price	₹ 200 each



The body of knowledge called science is based on certain well-tested principles and technology is nothing but application of these principles in the development of machines, gadgets, etc. for human benefit. Thus, in simple terms, technology is 'science in action'.

Children and students are generally very curious and they have many questions about matters concerning science and technology. These questions often centre around When, What, Why, Where, Who, and How? Of course, there are textbooks which a curious child can always go through. But, textbooks explain things in a manner which is highly technical and hence not easily comprehensible to children. Moreover, many new terms relating to science and technology are frequently used in media. One may, for instance, encounter terms like spam, blog, simputer, GM food, tofu, etc. These days, a lot of reference to trans fats is being made both in electronic and print media.

The two volumes under review have been specially prepared with the objective of presenting the facts

in easily comprehensible style. The author has included topics on subjects generally not covered in the conventional books. Over 350 questions on different facets of science and technology are covered in the two volumes.

The first volume W₅H of Science is divided into ten broad topics. The title of some of the topics are: 'About Planets and Animals'; 'About our Body'; 'About Food and Health'; 'About the Sky and the Universe'; 'About Electricity'; 'About Light and Colour' and 'About Sound'. Some of the interesting questions included in this volume are: Do plants excrete? Do ants have any blood? How large is an elephant's heart? Why do we feel itchy? Why do we have two eyes? What is a "funny bone" of our body? What is the evening star? Does the Moon rotate? What are fats? What are GM foods? What is tofu? Can snakes hear? Can we hear sound in outer space? How does water rise up in plants? Why is our blood red?

The second volume W₅H of technology is divided into six broad topics: About 'Inventions'; 'Technology for Communicating Information';

'About Softwares'; 'Technology for Health Care'; 'About Space Exploration', and 'Other Miscellaneous Technologies'.

In the modern IT age, one often hears or reads many technical terms like pen drive, simputer, bluetooth technology, laser printer, inkjet printer, gateway, LAN, web camera, blog, etc. The book discusses these terms in question-answer format.

Another term which is very poorly understood is what is called 'placebo effect' in medicine. In fact, a placebo may be plain or distilled water or just sugar pill which a doctor may give to a patient without her/his knowledge. Even so, the patient may be cured of the disease her/his is suffering from due to her/his belief or faith in the drug.

There is a general misconception about bacteria and viruses which are prevalent among the common masses. The genetic material DNA is now a commonplace term. While the DNA can replicate, i.e., make copies of itself, it is not possible for DNA to directly build a protein which is so essential for carrying out the activities of the cell. The protein-making function is, in fact, performed by the RNA. A class of virus, called retrovirus, has RNA instead of DNA in its core.

Although viruses have been properly explained, bacteria and RNA have not been included as separate questions in the book which obviously leaves some gap.

While dealing with fats although the author has discussed saturated as well as mono and poly-unsaturated fats, he has not included a word about partially hydrogenated fats, also called trans fats. Also, while discussing the colour of blood, it needs to be mentioned that although the colour of the blood of most animals is red, some animals may have blue or green blood.

After India's successful *Chandrayaan-1* mission, a lot of interest has been generated to know more about Moon. In this scenario, the question 'Does the Moon rotate?' will be read with great interest by the readers. It is due to the rotation period of the Moon about its axis being equal to the period of its revolution around the Earth that we are able to see only one hemisphere of the Moon. However, the orbital velocity of the Moon around the Earth shows slight variation which is known as libration. Thanks to these librations, we are able to see 59 per cent of the lunar surface. The remaining 41 per cent of the lunar surface is never visible from the Earth.

Incidentally, some of the questions listed in the contents do not find inclusion in the text. For example, in the first volume on science, the question 'What is an electric motor; who invented it?' (About electricity) is missing from the text. Similarly, the question 'What is a vegetarian egg?' (about food and health) is not answered in the text. There may be many more instances of this kind.

Also, some of the questions not listed in the contents appear in the text, e.g., the question 'Can plants eat animals?' (About food and health), although not listed in the contents is answered in the text. Many more examples may be provided.

Nonetheless, on the whole, the two volumes will prove to be treasure-trove of knowledge for students who will find them very informative and useful. Both school and college libraries can order for these books to serve as ready reference for students.

Dr P.K. Mukherjee

43, Deshbandhu Society
15, Patparganj
Delhi 110 092