

The Science Behind Medicines

Reviewed by Tim Harrison, School of Chemistry, University of Bristol, UK

The Science Behind Medicines CD-ROM is a teaching resource produced by GlaxoSmithKline and aimed at biology and chemistry teachers of post-16 students. It has sections on drug discovery, structural formulae, bacterial infections, asthma and viral infections.

The material has been mapped to a number of science courses at both traditional and vocational GCSE and A-levels in the British education system. Despite the stated age range, elements of the CD-ROM could be used as lesson 'starters' for younger students who are studying the basics of microbes or disease.

The section on bacteria details the uses, classification and structure of bacteria. This goes on to look at diseases caused by bacteria and how they are fought. The development of penicillin, how antibiotics work, bacterial resistance and recent advances to combat this are explained.

The section on asthma has an introduction to the disease, and includes topics such as the role of adrenaline, cell receptors and their function, bronchodilators and the improvements sought for new bronchodilators.

In the section on viral infections, many aspects of viruses are discussed: viral structure, mechanism of host-cell infection, antiviral drugs, HIV, AIDS, influenza, and the future of antiviral drugs. To clarify explanations, the structure of DNA is also described. Historical aspects of both viral and

bacterial infections are not forgotten. A piece on the discovery of the structure of DNA is also included.

To make it easier for students to understand the text, a comprehensive glossary of terms is available throughout the resource, which activates when the mouse rolls over highlighted terms.

The section on structural formulae takes the user through several stages to read and draw molecular formulae from ethane to penicillin G. This section is useful for those who are not yet experienced in representing molecules in this way, as structural formulae are used throughout the other sections.

The only disappointment with this otherwise excellent CD-ROM is that sections of text and images cannot be copied. This limits its use, as students cannot use it to prepare revision notes, projects or presentations. Nevertheless, *The Science Behind Medicines* CD-ROM should be included on school servers everywhere and copies could also be made available in school libraries.

Details

Publisher: GlaxoSmithKline

Information about the CD-ROM and other free resources from GlaxoSmithKline is available here: www.gsk.com/community/supporting_education/free_resources.htm

Ordering

Copies of the CD-ROM are available free by emailing resources@edist.co.uk

