

AV & Software Reviews

CELL BIOLOGY

Visualizing Cell Processes 3rd Edition. (2003). DVD. Produced by eBioMEDIA, PO Box 1234, Beaufort, SC 29901-1234. ISBN 1-930527-17-5. (877) 661-5355. \$400. Free study guides can be downloaded at www.eBioMEDIA.com.

System Requirements:

PC:

- Windows 98 through X
- Adobe Acrobat®
- Quick Time Player®

Mac:

- Mac OS 8.2 through X
- Adobe Acrobat®
- Quick Time Player®

Visualizing Cell Processes is a remarkable resource of 50 modules for biology students and their teachers. This BioMedia series focuses on biochemistry, cytology, cell energetics, genetics evolution, and viruses. For each topic there are self-quizzes, essay questions, and posters that can be printed using Adobe Acrobat®. There

are also Quick Time® animations that include narration. These animations are very brief, but can be viewed in sequence to cover a complex process such as light trapping by chloroplasts. Video clips are enhanced with a notes section and a text version of the narration with glossary terms highlighted.

The span of this program covers approximately one-third of the content of most biology courses. The concept approach used allows the user to access as much or as little detail as desired. The glossary defines over 500 key cell biology terms, and these terms are color-coded to distinguish basic from more advanced terminology. A password gives the teacher access to answer keys and to correlation tables for both high school and Advanced Placement biology *National Science Education Standards*. Web link addresses direct the teacher to more comprehensive curriculum resources.

The enclosed *Instructor Notes* point out that "Although the screen content density of the *Interactive Learning Guide* is maximized for individual computer work, the program can also be successfully presented via LCD projector." Many of the concepts presented are ones my students find challenging. With the purchase of a classroom set, a student would be able to work at his/her own pace. This program would be an excellent reinforcement for them.

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PHYLOGENETICS

MacClade 4: Analysis of Phylogeny and Character Evolution, Version 4.06. (2003). CD-ROM by David R. Maddison and Wayne P. Maddison. Distributed by Sinauer Associates, Sunderland, MA. Order through www.sinauer.com. \$120.

System Requirements

Mac:

- Any Macintosh that can run System 7.5 or later (including PowerMacs, PowerMac G3, PowerMac G4, iMacs, Power-books, iBooks, Quadras, Centris, and Performas, among others). Also compatible with systems 8, 9, and OSX. Hard disk and CD drive are required.
- Memory (RAM) needed depends on your data and tree files. For example, 4Mb or more of RAM devoted to MacClade should be able to handle 200 taxa and 500 characters in a morphological matrix, or 50 taxa and 200 characters of DNA sequence. More memory is required if some of the tools for molecular sequence editing are used.
- Some of MacClade's tree-printing features require a PostScript® printer; otherwise, any Macintosh-compatible printer is suitable.

