Topic: Cell structure and function

Project 2061 Instructional Analysis of Biology Textbooks

Instructional Categories	**Biology Miller · Levine** *Prentice Hall*	**Biology: A Community Context** *South-Western Educational Publishing*	**Biology: Principles & Explorations** *Holt, Rinehart and Winston*	**Biology: The Dynamics of Life** *Glencoe, McGraw-Hill*	**Biology: Visualizing Life** *Holt, Rinehart and Winston*	**BSCS Biology: A Human Approach** *Kendall Hunt*	**BSCS Biology: An Ecological Approach** *Kendall Hunt*	**Heath Biology** *D.C. Heath and Company*	**Insights in Biology** *Kendall Hunt*	**Modern Biology** *Holt, Rinehart and Winston*
I. PROVIDING A SENSE OF PURPOSE										
Conveying unit purpose	◧	◨	■	■	■	▣	◧	■	◧	■
Conveying lesson purpose	■	◧	■	■	■	□	■	■	□	■
Justifying lesson sequence	◧	◧	◧	◧	◧	◧	◧	◧	◧	◧
II. TAKING ACCOUNT OF STUDENT IDEAS										
Attending to prerequisite knowledge and skills	■	■	■	■	■	■	■	■	■	■
Alerting teacher to commonly held student ideas	No Research Base									
Assisting teacher in identifying own students' ideas	■	■	■	■	■	■	■	■	◧	■
Addressing commonly held ideas	No Research Base									
III. ENGAGING STUDENTS WITH RELEVANT PHENOMENA										
Providing variety of phenomena	■	■	■	■	■	■	■	■	■	■
Providing vivid experiences	■	■	■	■	■	■	■	■	■	■
IV. DEVELOPING AND USING SCIENTIFIC IDEAS										
Introducing terms meaningfully	■	■	■	■	■	■	◧	■	□	■
Representing ideas effectively	■	■	■	■	■	■	■	■	■	◧
Demonstrating use of knowledge	■	■	■	■	■	■	■	■	■	■
Providing practice	■	■	■	■	■	■	■	■	■	■
V. PROMOTING STUDENT THINKING ABOUT PHENOMENA, EXPERIENCES, AND KNOWLEDGE										
Encouraging students to explain their ideas	■	■	■	■	■	◧	■	■	◧	■
Guiding student interpretation and reasoning	■	■	■	■	■	■	■	■	◧	■
Encouraging students to reflect on their own learning	■	■	■	■	■	■	■	■	■	■
VI. ASSESSING PROGRESS										
Aligning assessment to goals	■	■	■	■	■	■	■	N/A	■	■
Testing for understanding	■	■	■	■	■	■	■	N/A	■	■
Using assessment to inform instruction	■	■	■	■	■	■	■	N/A	■	■

▣ = Excellent (3); ◨ = Good (2.5-2.9); □ = Satisfactory (2-2.4); ◧ = Fair (1.5-1.9); ■ = Poor (0-1.4)