

Topic: Molecular basis of heredity



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)