

National Science Content Standards

The National Science Content Standards for Grades 9–12 have been correlated to each section of *Physics: Principles and Problems*. You will find these correlations at the top of every page in this *Lesson Plans* book and on the interleaf pages of the Teacher Wraparound Edition. Correlations are designated according to the numbering system in the table of science content standards shown here.

Unifying Concepts and Processes

- UCP.1 Systems, order, and organization
- UCP.2 Evidence, models, and explanation
- UCP.3 Change, constancy, and measurement
- UCP.4 Evolution and equilibrium
- UCP.5 Form and function

Science as Inquiry

- A.1 Abilities necessary to do scientific inquiry
- A.2 Understandings about scientific inquiry

Physical Science

- B.1 Structure of atoms
- B.2 Structure and properties of matter
- B.3 Chemical reactions
- B.4 Motions and forces
- B.5 Conservation of energy and increase in disorder
- B.6 Interactions of energy and matter

Life Science

- C.1 The cell
- C.2 Molecular basis of heredity
- C.3 Biological evolution
- C.4 Interdependence of organisms
- C.5 Matter, energy, and organization in living systems
- C.6 Behavior of organisms

Earth and Space Science

- D.1 Energy in the earth system
- D.2 Geochemical cycles
- D.3 Origin and evolution of the earth system
- D.4 Origin and evolution of the universe

Science and Technology

- E.1 Abilities of technological design
- E.2 Understandings about science and technology

Science in Personal and Social Perspectives

- F.1 Personal and community health
- F.2 Population growth
- F.3 Natural Resources
- F.4 Environmental quality
- F.5 Natural and human-induced hazards
- F.6 Science and technology in local, national, and global challenges

History and Nature of Science

- G.1 Science as a human endeavor
- G.2 Nature of scientific knowledge
- G.3 Historical perspectives