

Alignment with the National Science Education Standards (NRC 1996).

Unifying concepts and process standards addressed:

- Evidence, models, and explanation
- Form and function

Grades 9–12 content standards addressed

Standard A: Science as inquiry

Abilities necessary to do scientific inquiry

- Formulate scientific explanations and models
- Analyze alternative explanations

Understandings about scientific inquiry

- Scientific explanations

Standard B: Physical science

Chemical reactions

- Energy and chemical reactions

Interactions of energy and matter

- Waves
- Electromagnetic waves
- Discrete amounts of energy in atoms/molecules

Standard E: Science and technology

Understandings about science and technology

- Scientists in different disciplines use different methods

Standard F: Science in personal and social perspectives

Personal and community health

- Personal choice concerning fitness and health involves multiple factors

Science and technology in local, national, and global challenges

- Individuals and society must decide on proposals of new research/technologies

Standard G: History and nature of science

Nature of scientific knowledge

- All scientific knowledge is subject to change as new evidence becomes available

Historical perspectives

- Scientific knowledge evolves over time, building on earlier knowledge

(**Note:** Figure adapted from the NanoSense Clear Sunscreen unit with permission under a Creative Commons Attribution 3.0 License)