

National Science Standards Matrix

based on *National Science Education Standards*, 1996, National Academy Press: Washington, D.C.

Content Standards

Chapter	A	B	C	D	E	F	G	H
Geologic History	■	■	■		■			■
Rocks	■	■	■		■			
Glaciers	■	■	■		■			
Fossils	■	■	■	■	■			
Topography	■	■	■		■			
Mineral Resources	■	■	■		■	■	■	■
Non-Mineral Resources	■	■	■		■	■	■	■
Environmental Issues	■	■	■		■		■	

Content Standards

k-4th grade

5-8th grade

9-12th grade

A	Unifying Concepts & Processes	<ul style="list-style-type: none"> Systems, order and organization Evidence, models, explanation Change, constancy and measurement Evolution and equilibrium Form and function 	<ul style="list-style-type: none"> Systems, order and organization Evidence, models, explanation Change, constancy and measurement Evolution and equilibrium Form and function 	<ul style="list-style-type: none"> Systems, order and organization Evidence, models, explanation Change, constancy and measurement Evolution and equilibrium Form and function
B	Science As Inquiry	<ul style="list-style-type: none"> Abilities necessary to do scientific inquiry Understanding about scientific inquiry 	<ul style="list-style-type: none"> Abilities necessary to do scientific inquiry Understanding about scientific inquiry 	<ul style="list-style-type: none"> Abilities necessary to do scientific inquiry Understanding about scientific inquiry
C	Physical Science	<ul style="list-style-type: none"> Properties and changes of properties in matter Motions and forces Transfer of energy 	<ul style="list-style-type: none"> Properties and changes of properties in matter Motions and forces Transfer of energy 	<ul style="list-style-type: none"> Structure of atoms Structure and properties of matter Chemical reactions Motions and forces Conservation of energy and increase in disorder Interactions of energy and matter
D	Life Science	<ul style="list-style-type: none"> Characteristics of organisms Life cycles of organisms Organisms and environments 	<ul style="list-style-type: none"> Structure and function in living systems Reproduction and heredity Regulation and behavior Populations and ecosystems Diversity and adaptation of organisms 	<ul style="list-style-type: none"> The cell Molecular basis of heredity Biological evolution Interdependence of organisms in living systems Behavior of organisms
E	Earth & space science	<ul style="list-style-type: none"> Properties of Earth materials Objects in the sky Changes in Earth and sky 	<ul style="list-style-type: none"> Structure of Earth system Earth's history Earth in the solar system 	<ul style="list-style-type: none"> Energy in the Earth system Geochemical cycles Origin & evolution of the Earth Origin & evolution of the universe
F	Science & Technology	<ul style="list-style-type: none"> Abilities of technological design Understandings about science and technology Abilities to distinguish between natural objects and objects made by humans 	<ul style="list-style-type: none"> Abilities of technological design Understandings about science and technology 	<ul style="list-style-type: none"> Abilities of technological design Understandings about science and technology
G	Science in Personal & Social Perspective	<ul style="list-style-type: none"> Personal health Characteristics and changes in populations Types of resources Changes in environments Science and technology in local challenges 	<ul style="list-style-type: none"> Personal health Populations, resources and environments Natural hazards Risks and benefits Science and technology in society 	<ul style="list-style-type: none"> Personal and community health Population growth Natural resources Environmental quality Natural and human induced hazards Science and technology in local, national and global challenges
H	History & Nature of Science	<ul style="list-style-type: none"> Science as a human endeavor 	<ul style="list-style-type: none"> Science as a human endeavor Nature of science History of science 	<ul style="list-style-type: none"> Science as a human endeavor Nature of scientific knowledge Historical perspectives

