

National Science Education Standards

BRSP-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Science as Inquiry																					
CONTENT STANDARD A																					
Grades K-4:																					
A1. Abilities necessary to do scientific inquiry																					
<ul style="list-style-type: none"> • Ask a question about objects, organisms, and events in the environment. • Plan and conduct a simple investigation. • Employ simple equipment and tools to gather data and extend the senses. • Use data to construct a reasonable explanation. • Communicate investigations and explanations. 					x	x	x														
A2. Understandings about scientific inquiry					x	x	x														
Grades 5-8:																					
A3. Abilities necessary to do scientific inquiry																					
<ul style="list-style-type: none"> • Identify questions that can be answered through scientific investigations. • Design and conduct a scientific investigation. • Use appropriate tools and techniques to gather, analyze, and interpret data. • Develop descriptions, explanations, predictions, and models using evidence. • Think critically and logically to make the relationships between evidence and explanations • Recognize and analyze alternative explanations and predictions. • Communicate scientific procedures and explanations. • Use mathematics in all aspects of scientific inquiry. 						x	x	x		x		x	x		x	x	x	x			
A4. Understandings about scientific inquiry						x	x	x		x		x	x		x	x	x	x			
Grades 9-12:																					
A5. Abilities necessary to do scientific inquiry																					
<ul style="list-style-type: none"> • Identify questions and concepts that guide scientific investigations. • Design and conduct scientific investigations. • Use technology and mathematics to improve investigations and communications. • Formulate and revise scientific explanations and models using logic and evidence. • Recognize and analyze alternative explanations and models. • Communicate and defend a scientific argument. 										x		x	x		x	x	x	x	x	x	
A6. Understandings about scientific inquiry										x		x	x		x	x	x	x	x	x	
Physical Science																					
CONTENT STANDARD B																					
Grades K-4:																					
B1. Properties of objects and materials						x	x														
B2. Position and motion of objects																					
B3. Light, heat, electricity, and magnetism						x	x														
Grades 5-8:																					
B4. Properties and changes of properties in matter						x						x	x	x	x						
B5. Motions and forces									x										x		
B6. Transfer of energy						x	x		x	x						x	x	x	x		

National Science Education Standards cont.

	BRSP-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Grades 5-8:																					
E4. Abilities of technological design																					
<ul style="list-style-type: none"> • Identify appropriate problems for technological design. • Design a solution or product. Implement a proposed design. • Evaluate completed technological designs or products. • Communicate the process of technological design. 																					
																	x	x			
E5. Understandings about science and technology																					
					x									x			x	x			
Grades 9-12:																					
E6. Abilities of technological design																					
<ul style="list-style-type: none"> • Identify a problem or design an opportunity. • Propose designs and choose between alternative solutions. • Implement a proposed solution. • Evaluate the solution and its consequences. • Communicate the problem, process, and solution. 																					
																	x	x		x	
E7. Understandings about science and technology																					
																	x	x		x	x
<u>Science in Personal and Social Perspectives</u> CONTENT STANDARD F																					
Grades K-4:																					
F1. Personal health																					
F2. Characteristics and changes in populations																					
F3. Types of resources																					
F4. Changes in environments																					
								x													
F5. Science and technology in local challenges																					
Grades 5-8:																					
F6. Personal health																					
F7. Populations, resources, and environments																					
																		x			
F8. Natural hazards																					
F9. Risks and benefits																					
F10. Science and Technology in Society																					
														x			x	x		x	x
Grades 9-12:																					
F11. Personal and community health																					
F12. Population growth																					
F13. Natural resources																					
																	x	x		x	
F14. Environmental quality																					
																	x	x			x
F15. Natural and human-induced hazards																					
																	x	x			x
F16. Science and technology in local, national, and global challenges																					
																	x	x			x
<u>History and Nature of Science</u> CONTENT STANDARD G																					
Grades K-4:																					
G1. Science as a human endeavor																					
Grades 5-8:																					
G2. Science as a human endeavor																					
																				x	
G3. Nature of science																					
																x				x	
G4. History of science																					
														x						x	
Grades 9-12:																					
G5. Science as a human endeavor																					
														x						x	x
G6. Nature of scientific knowledge																					
																x				x	x
G7. Historical perspectives																					
																				x	x