



Standards
 Science
 Grades K-12
 Jeffers Petroglyphs

Title					
Program Name					
Prairie Walk	Prairie Animals	Tour of Carvings	Atlatl	Travois	Survivor

Grade	2009 Science Standards										
	Strand	Sub-Strand	Standard	Code							
K	4. Life Science	1. Structure and Function in Living Systems	1. Living things are diverse with many different observable characteristics.	0.4.1.1.1 0.4.1.1.2 0.4.1.1.3	X X X	X X X					
	4. Life Science	2. Interdependence Among Living Systems	1. Natural systems have many components that interact to maintain the system.	0.4.2.1.1	X						
1	1. The Nature of Science and Engineering	3. Interactions Among Science, Technology Engineering, Mathematics, and Society	2. Men and women throughout the history of all cultures, including Minnesota American Indian tribes and communities, have been involved in engineering design and scientific inquiry.	1.1.3.2.1				X	X		
	3. Earth and Space Science	1. Earth Structure and Processes	3. Earth materials include solid rocks, sand, soil and water. These materials have different observable physical properties that make them useful.	1.3.1.3.1 1.3.1.3.2 1.3.1.3.3			X X X				
	4. Life Science	1. Structure and Function in Living Systems	1. Living things are diverse with many different observable characteristics.	1.4.1.1.1	X	X					
	4. Life Science	2. Interdependence Among Living Systems	1. Natural systems have many components that interact to maintain the system.	1.4.2.1.1 1.4.2.1.2	X X						
2	1. The Nature of Science and Engineering	2. The Practice of Engineering	2. Engineering design is the process of identifying a problem and devising a product or process to solve the problem.	2.1.2.2.1 2.1.2.2.2 2.1.2.2.3				X X X	X X X		

	2. Physical Science	2. Motion	1. The motion of an object can be described by a change in its position over time.	2.2.2.1.1 2.2.2.1.2				X X		
	4. Life Science	1. Structure and Function in Living Systems	1. Living things are diverse with many different observable characteristics.	2.4.1.1.1	X	X				
	4. Life Science	2. Interdependence Among Living Systems	1. Natural systems have many components that interact to maintain the system	2.4.2.1.1	X					
3	1. The Nature of Science and Engineering	3. Interactions Among Science, Technology Engineering, Mathematics, and Society	2. Men and women throughout the history of all cultures, including Minnesota American Indian tribes and communities, have been involved in engineering design and scientific inquiry.	3.1.3.2.1 3.1.3.2.2				X X	X X	
	4. Life Science	1. Structure and Function in Living Systems	1. Living things are diverse with many different characteristics that enable them to grow, reproduce and survive.	3.4.1.1.1 3.4.1.1.2	X X	X X				
4	1. The Nature of Science and Engineering	2. The Practice of Engineering	1. Engineers design, create and develop structures, processes and systems that are intended to improve society and may make humans more productive.	4.1.2.1.1				X	X	
	1. The Nature of Science and Engineering	2. The Practice of Engineering	2. Engineering design is the process of Identifying problems, developing multiple solutions, selecting the best possible solution, and building the product.	4.1.2.2.1 4.1.2.2.2 4.1.2.2.3				X X X	X X X	
	1. The Nature of Science and Engineering	3. Interactions Among Science, Technology Engineering, Mathematics, and Society	3. The needs of any society influence the technologies that are developed and how they are used.	4.1.3.3.1				X	X	
	3. Earth and Space Science	1. Earth Structure and Processes	3. Rocks are Earth materials that may vary in composition.	4.3.1.3.1 4.3.1.3.2				X X		

5	1. Nature of Science and Engineering	3. Interactions Among Science, Technology Engineering, Mathematics, and Society	2. Men and women throughout the history of all cultures, including Minnesota American Indian tribes and communities, have been involved in engineering design and scientific inquiry.	5.1.3.2.1				X	X	X
	1. Nature of Science and Engineering	3. Interactions Among Science, Technology Engineering, Mathematics, and Society	4. Tools and mathematics help scientists and engineers see more, measure more accurately, and do things that they could not otherwise accomplish.	5.1.3.4.1 5.1.3.4.2				X X	X X	X X
	2. Physical Science	2. Motion	1. An object's motion is affected by forces and can be described by the object's speed and the direction it is moving.	5.2.2.1.1 5.2.2.1.2 5.2.2.1.3				X X X		
	3. Earth and Space Science	1. Earth Structure and Processes	2. The surface of the Earth changes. Some changes are due to slow processes and some changes are due to rapid processes.	5.3.1.2.1 5.3.1.2.2			X X			
	3. Earth and Space Science	4. Human Interactions with Earth Systems	1. In order to maintain and improve their existence, humans interact with and influence Earth systems.	5.3.4.1.1 5.3.4.1.2 5.3.4.1.3						X X X
	4. Life Science	1. Structure and Function in Living Systems	1. Living things are diverse with many different characteristics that enable them to grow, reproduce and survive.	5.4.1.1.1	X	X				
	4. Life Science	2. Interdependence Among Living Systems	1. Natural systems have many components that interact to maintain the living system.	5.4.2.1.1 5.4.2.1.2	X X					
	4. Life Science	4. Human Interactions with Living Systems	1. Humans change environments in ways that can be either beneficial or harmful to themselves and other organisms.	5.4.4.1.1						X
6	1. The Nature of Science and Engineering	2. The Practice of Engineering	1. Engineers create, develop and manufacture machines, structures, processes and systems that impact society and may make humans more productive.	6.1.2.1.1 6.1.2.1.2 6.1.2.1.3 6.1.2.1.4				X X X X	X X X X	X X X X

	1. The Nature of Science and Engineering	2. The Practice of Engineering	2. Engineering design is the process of devising products, processes and systems that address a need, capitalize on an opportunity, or solve a specific problem.	6.1.2.2.1				X	X	X
	2. Physical Science	2. Motion	1. The motion of an object can be described in terms of speed, direction and change of position.	6.2.2.1.1 6.2.2.1.2				X X		
	2. Physical Science	2. Motion	2. Forces have magnitude and direction and affect the motion of objects.	6.2.2.2.1 6.2.2.2.2 6.2.2.2.3 6.2.2.2.4				X X X X		
7	4. Life Science	2. Interdependence Among Living Systems	1. Natural systems include a variety of organisms that interact with one another in several ways.	7.4.2.1.1 7.4.2.1.2 7.4.2.1.3	X X X					
	4. Life Science	2. Interdependence Among Living Systems	2. The flow of energy and the recycling of matter are essential to a stable ecosystem.	7.4.2.2.1 7.4.2.2.2 7.4.2.2.3	X X X					
	4. Life Science	4. Human Interactions with Living Systems	1. Human activity can change living organisms and ecosystems.	7.4.4.1.1 7.4.4.1.2						X X
8	1. The Nature of Science and Engineering	3. Interactions Among Science, Technology, Engineering, Mathematics and Society	2. Men and women throughout the history of all cultures, including Minnesota American Indian tribes and communities, have been involved in engineering design and scientific inquiry.	8.1.3.2.1				X	X	X
	3. Earth and Space Science	1. Earth Structure and Processes	2. Landforms are the result of the combination of constructive and destructive processes.	8.3.1.2.1 8.3.1.2.2				X X		
	3. Earth and Space Science	1. Earth Structure and Processes	3. Rocks and rock formations indicate evidence of the materials and conditions that produced them.	8.3.1.3.1 8.3.1.3.2 8.3.1.3.3				X X X		

9 10 11 12	1. The Nature of Science and Engineering	2. The Practice of Engineering	1. Engineering is a way of addressing human needs by applying science concepts and mathematical techniques to develop new products, tools, processes and systems.	9.1.2.1.1 9.1.2.1.2				X X	X X	X X
	1. The Nature of Science and Engineering	2. The Practice of Engineering	2. Engineering design is an analytical and creative process of devising a solution to meet a need or solve a specific problem.	9.1.2.2.1 9.1.2.2.2				X X	X X	X X
	1. The Nature of Science and Engineering	3. Interactions Among Science, Technology, Engineering, Mathematics, and Society	2. Men and women throughout the history of all cultures, including Minnesota American Indian tribes and communities, have been involved in engineering design and scientific inquiry.	9.1.3.2.1 9.1.3.2.2				X X	X X	X X
	2. Physical Science	2. Motion	2. An object's mass and the forces on it affect the motion of an object.	9.2.2.2.1 9.2.2.2.2 9.2.2.2.3 9.2.2.2.4				X X X X		
	3. Earth and Space Science	1. Earth Structure and Processes	1. The relationships among earthquakes, mountains, volcanoes, fossil deposits, rock layers and ocean features provide evidence for the theory of plate tectonics.	9.3.1.1.1 9.3.1.1.2 9.3.1.1.3 9.3.1.1.4 9.3.1.1.5				X X X X X		
	3. Earth and Space Science	1. Earth Structure and Processes	3. By observing rock sequences and using fossils to correlate the sequences at various locations, geologic events can be inferred and geologic time can be estimated.	9.3.1.3.1 9.3.1.3.2				X X		
	4. Life Science	2. Interdependence Among Living Systems	1. The interrelationship and interdependence of organisms generate dynamic biological communities in ecosystems.	9.4.2.1.1 9.4.2.1.2	X X					
Physics	2. Physical Science	2. Motion	1. Forces and inertia determine the motion of objects.	9P.2.2.1.1 9P.2.2.1.2 9P.2.2.1.3				X X X		

	2. Physical Science	2. Motion	2. When objects change their motion or interact with other objects in the absence of frictional forces, the total amount of mechanical energy remains constant.	9P.2.2.2.1 9P.2.2.2.2 9P.2.2.2.3				X X X		
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