

Nebraska State Accountability - Alternate Assessment of Science (NeSA-AAS)
Tables of Specification

Grade 5

Inquiry, The Nature of Science, and Technology

Grade 5 Abilities to do Scientific Inquiry	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
<p>SCE 5.1.1 <u>General</u> Students will plan and conduct investigations that lead to the development of explanations. Extended <i>Students will conduct investigations that lead to a final product.</i></p>	4	0-1	0-1	2-5	1-4	4-7
<i>SC 5.1.1.a Ask testable scientific questions</i>	4					
<i>SC 5.1.1.b Plan and conduct investigations and identify factors that have the potential to impact an investigation</i>	4					
<i>SC 5.1.1.c Select and use equipment correctly and accurately</i>	4					
<i>SC 5.1.1.d Make relevant observations and measurements</i>	4					
<i>SC 5.1.1.e Collect and organize data</i>	4					
<i>SC 5.1.1.f Develop a reasonable explanation based on collected data</i>	4					
<i>SC 5.1.1.g Share information, procedures, and results with peers and/or adults</i>	4					
<i>SC 5.1.1.h Provide feedback on scientific investigations</i>	4					
<i>SC 5.1.1.i Use appropriate mathematics in all aspects of scientific inquiry</i>	4					
Grade 5 Nature of Science	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
<p>SCE 5.1.2 <u>General</u> Students will describe how scientists go about their work. Extended <i>Students will observe how scientists go about their work.</i></p>	Assessed at the local level					
<i>SC 5.1.2.a Recognize that scientific explanations are based on evidence and scientific knowledge</i>						
<i>SC 5.1.2.b Recognize that new discoveries are always being made which impact scientific knowledge</i>						
<i>SC 5.1.2.c Recognize many different people study science</i>						

Grade 5 Technology	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SC 5.1.3 <u>General</u> Students will solve a simple design problem. Extended Students will solve a simple problem.	Assessed at the local level					
SC 5.1.3.a Identify a simple problem						
SC 5.1.3.b Propose a solution to a simple problem						
SC 5.1.3.c Implement the proposed solution						
SC 5.1.3.d Evaluate the implementation						
SC 5.1.3.e Communicate the problem, design, and solution						
PHYSICAL SCIENCE						
Grade 5 Matter	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.2.1 <u>General</u> Students will explore and describe the physical properties of matter and its changes. Extended Students will explore and recognize the physical properties of matter and its changes.	4	0-1	0-1	1-4	0-3	2-4
SC 5.2.1.a Identify mixtures and pure substances	4					
SC 5.2.1.b Identify physical properties of matter (color, odor, elasticity, weight, volume)	4					
SC 5.2.1.c Use appropriate metric measurements to describe physical properties	4					
SC 5.2.1.d Identify state change caused by heating and cooling solids, liquids, and gasses	4					
Grade 5 Force and Motion	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.2.2 <u>General</u> Students will identify the influence of forces on motion. Extended Students will identify the influence of forces on motion.	4	0-1	0-1	1-3	0-2	2-3
SC 5.2.2.a Describe motion by tracing and measuring an object's position over a period of time (speed)	4					
SC 5.2.2.b Describe changes in motion due to outside forces (push, pull, gravity)	4					
SC 5.2.2.c Describe magnetic behavior in terms of attraction and repulsion	4					

Grade 5 Energy	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.2.3 <u>General</u> Students will observe and identify signs of energy transfer. Extended <i>Students will observe and identify signs of energy transfer.</i>	4	0-1	0-1	1-3	0-2	2-3
SC 5.2.3.a Recognize that sound is produced from vibrating objects; the sound can be changed by changing the vibration	4					
SC 5.2.3.b Recognize that light travels in a straight line and can be reflected by an object (mirror)	4					
SC 5.2.3.c Recognize that light can travel through certain materials and not others (transparent, translucent, opaque)	4					
SC 5.2.3.d Identify ways to generate heat (friction, burning, incandescent light bulb)	4					
SC 5.2.3.e Identify materials that act as thermal conductors or insulators	4					
SC 5.2.3.f Recognize that the transfer of electricity in an electrical circuit requires a closed loop	4					
LIFE SCIENCE						
Grade 5 Life Science	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.3.1 <u>General</u> Students will investigate and compare the characteristics of living things. Extended <i>Students will recognize that living things grow.</i>	4	0-1	0-1	1-3	0-2	2-3
SC 5.3.1.a Compare and contrast characteristics of living and nonliving things	4					
SC 5.3.1.b Identify how parts of plants and animals function to meet basic needs (e.g., leg of an insect helps an insect move, root of a plant helps the plant obtain water)	4					
Grade 5 Heredity	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.3.2 <u>General</u> Students will identify variations of inherited characteristics and life cycles. Extended <i>Students will observe inherited characteristics and life cycles.</i>	4	0-1	0-2	1-3	0-2	1-3
SC 5.3.2.a Identify inherited characteristics of plants and animals	4					
SC 5.3.2.b Identify the life cycle of an organism	4					

SCE 5.3.3 <u>General</u> Students will describe relationships within an ecosystem. Extended <i>Students will recognize relationships within an ecosystem.</i>	4	0-1	0-2	0-3	0-2	2-3
SC 5.3.3.a Diagram and explain a simple food chain beginning with the Sun	4					
SC 5.3.3.b Identify the role of producers, consumers, and decomposers in an ecosystem	4					
SC 5.3.3.c Recognize the living and nonliving factors that impact the survival of organisms in an ecosystem	4					
SC 5.3.3.d Recognize all organisms cause changes, some beneficial and some detrimental, in the environment where they live	4					
SCE 5.3.4 <u>General</u> Students will describe changes in organisms over time. Extended <i>Students will identify changes in organisms over time.</i>	4	0-1	0-1	1-2	0-1	1-2
SC 5.3.4.a Describe adaptations made by plants or animals to survive environmental changes	4					
EARTH AND SPACE SCIENCE						
Grade 5 Earth in Space	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
SCE 5.4.1 <u>General</u> Students will observe and describe characteristics, patterns, and changes in the sky. Extended <i>Students will observe and recognize changes in the sky.</i>		0-1	0-1	1-3	0-2	1-3
SC 5.4.1.a Recognize that the observed shape of the Moon changes from day to day during a one month period	4					
SC 5.4.1.b Recognize the motion of objects in the sky (the Sun, the Moon, stars) change over time in recognizable patterns	4					

Grade 5 Earth Structures and Processes	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
<p>SCE 5.4.2 <u>General</u> Students will observe and describe Earth's materials, structure, and processes. Extended <i>Students will observe and recognize Earth's materials and processes.</i></p>	4	0-1	0-2	1-4	0-2	2-4
<i>SC 5.4.2.a Describe the characteristics of rocks, minerals, soil, water, and the atmosphere</i>	4					
<i>SC 5.4.2.b Identify weathering, erosion, and deposition as processes that build up or break down Earth's surface</i>	4					
<i>SC 5.4.2.c Identify how Earth materials are used (fuels, building materials, sustaining plant life)</i>	4					
Grade 5 Energy in Earth's Systems	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
<p>SCE 5.4.3 <u>General</u> Students will observe and describe the effects of energy changes on Earth. Extended <i>Students will observe and recognize the effects of energy changes on Earth.</i></p>	4	0-1	0-1	1-3	0-2	2-3
<i>SC 5.4.3.a Describe the Sun's warming effect on the land and water</i>	4					
<i>SC 5.4.3.b Observe, measure, and record changes in weather (temperature, wind direction and speed, precipitation)</i>	4					
<i>SC 5.4.3.c Recognize the difference between weather, climate, and seasons</i>	4					
Grade 5 Earth's History	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Total
<p>SCE 5.4.4 <u>General</u> Students will describe changes in Earth. Extended <i>Students will recognize changes occur on Earth.</i></p>	4	0-1	0-1	1-3	0-2	1-3
<i>SC 5.4.4.a Describe how slow processes (erosion, weathering, deposition) and rapid processes (landslides, volcanic eruptions, earthquakes) change Earth's surface</i>	4					