

North Dakota Science Content and Achievement Standards

Grades 9-10

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North Dakota Department of Public Instruction

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Standard 1: Unifying Concepts

Standard 1: Students understand the unifying concepts and processes of science.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
MODELS				
9-10.1.1. Explain how models can be used to illustrate scientific principles	Students give an insightful explanation of how models can be used to illustrate scientific principles.	Students give a reasonable explanation of how models can be used to illustrate scientific principles.	Students give an obvious explanation of how models can be used to illustrate scientific principles.	Students give an unreasonable explanation of how models can be used to illustrate scientific principles.
SYSTEMS				
9-10.1.2. Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)	Students describe all of the significant details of the interaction of components within a system.	Students describe most of the significant details of the interaction of components within a system.	Students describe some of the significant details of the interaction of components within a system.	Students describe few of the significant details of the interaction of components within a system.
CONSTANCY AND CHANGE				
9-10.1.3. Explain how a system can be dynamic yet may remain in equilibrium (e.g., water cycle, rock cycle, population)	Students explain how a system can be dynamic yet may remain in equilibrium with no errors.	Students explain how a system can be dynamic yet may remain in equilibrium with no significant errors.	Students explain how a system can be dynamic yet may remain in equilibrium with a few significant errors.	Students explain how a system can be dynamic yet may remain in equilibrium with many significant errors.
FORM AND FUNCTION				
9-10.1.4. Describe the relationship between form and function (e.g., solids, liquids, gases, cell specialization, simple machines, and plate tectonics)	Students describe all of the significant details relating form and function.	Students describe most of the significant details relating form and function.	Students describe some of the significant details relating form and function.	Students describe very few of the significant details relating form and function.

Standard 1: Students understand the unifying concepts and processes of science.

Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
<p>9-10.1.5. Explain how classification can be based on the relationship between form and function (e.g., elements and compounds, biological classifications, types of clouds)</p>	<p>Students explain how classification can be based on the relationship between form and function with no errors.</p>	<p>Students explain how classification can be based on the relationship between form and function with no significant errors.</p>	<p>Students explain how classification can be based on the relationship between form and function with a few significant errors.</p>	<p>Students explain how classification can be based on the relationship between form and function with many significant errors.</p>
EVOLUTION AND EQUILIBRIUM				
<p>9-10.1.6. Identify principles governing evolution and equilibrium within systems (e.g., cause and effect, positive and negative feedback)</p>	<p>Students identify all of the significant principles governing evolution and equilibrium within systems.</p>	<p>Students identify most of the significant principles governing evolution and equilibrium within systems.</p>	<p>Students identify some of the significant principles governing evolution and equilibrium within systems.</p>	<p>Students identify few of the significant principles governing evolution and equilibrium within systems.</p>

Standard 2: Science Inquiry

Standard 2: Students use the process of science inquiry.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY				
9-10.2.1. Explain how scientific investigations can result in new ideas	Students provide an insightful explanation of how scientific investigations can result in new ideas.	Students provide a reasonable explanation of how scientific investigations can result in new ideas.	Students provide an obvious explanation of how scientific investigations can result in new ideas.	Students provide an unreasonable explanation of how scientific can sometimes result in new ideas.
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY				
9-10.2.2. Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)	Students always use appropriate safety equipment and precautions during investigations.	Students consistently use appropriate safety equipment and precautions during investigations.	Students occasionally use appropriate safety equipment and precautions during investigations.	Students rarely use appropriate safety equipment and precautions during investigations.
9-10.2.3. Identify questions and concepts that guide scientific investigations	Students identify, with no errors, questions and concepts that guide scientific investigations.	Students identify, with no significant errors, questions and concepts that guide scientific investigations.	Students identify, with few significant errors, questions and concepts that guide scientific investigations.	Students identify, with many significant errors, questions and concepts that guide scientific investigations.
9-10.2.4. Formulate a testable hypothesis for a simple investigation	Students always formulate a testable hypothesis for a simple investigation.	Students generally formulate a testable hypothesis for a simple investigation.	Students sometimes formulate a testable hypothesis for a simple investigation.	Students rarely formulate a testable hypothesis for a simple investigation.
9-10.2.5. Identify the independent and dependent variables, the control, and the constants when conducting an experiment	Students identify the independent and dependent variables, the control and the constants when conducting an experiment with no errors.	Students identify the independent and dependent variables, the control and the constants when conducting an experiment with no significant errors.	Students identify the independent and dependent variables, the control and the constants when conducting an experiment with a few significant errors.	Students identify the independent and dependent variables, the control and the constants when conducting an experiment many significant errors.
9-10.2.6. Design and conduct a guided investigation	Students design and conduct a substantive guided investigation.	Students design and conduct a relevant guided investigation.	Students design and conduct a typical guided investigation.	Students design and conduct a superficial guided investigation.

Standard 2: Students use the process of science inquiry.

Benchmark Expectations		PROFICIENCY DESCRIPTOR			
		ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
9-10.2.7.	Maintain clear and accurate records of scientific investigations	Students always maintain clear and accurate records of scientific investigations.	Students generally maintain clear and accurate records of scientific investigations.	Students sometimes maintain clear and accurate records of scientific investigations.	Students rarely maintain clear and accurate records of scientific investigations.
9-10.2.8.	Analyze data found in tables, charts, and graphs to formulate conclusions	Students analyze data found in tables, charts, and graphs to formulate insightful conclusions.	Students analyze data found in tables, charts, and graphs to formulate reasonable conclusions.	Students analyze data found in tables, charts, and graphs to formulate obvious conclusions.	Students analyze data found in tables, charts, and graphs to formulate unreasonable conclusions.

Standard 3: Physical Science

Standard 3: Students understand the basic concepts and principles of physical science.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
PROPERTIES OF MATTER				
9-10.3.1. Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)	Students classify elements according to similar properties with no errors.	Students classify elements according to similar properties with no significant errors.	Students classify elements according to similar properties with few significant errors.	Students classify elements according to similar properties with many significant errors.
9-10.3.2. Classify changes in matter as physical or chemical	Students classify changes in matter as physical or chemical with no errors.	Students classify changes in matter as physical or chemical with no significant errors.	Students classify changes in matter as physical or chemical with few significant errors.	Students classify changes in matter as physical or chemical with many significant errors.
9-10.3.3. Identify the Law of Conservation of Matter in physical and chemical changes	Students identify the Law of Conservation of Matter in an extensive variety of physical and chemical changes.	Students identify the Law of Conservation of Matter in many different physical and chemical changes.	Students identify the Law of Conservation of Matter in some different physical and chemical changes.	Students identify the Law of Conservation of Matter in a limited variety of physical and chemical changes.
ATOMS AND MOLECULES				
9-10.3.4. Construct a model of an atom (e.g., protons, neutrons, electrons, nucleus, electron cloud)	Students construct a model of an atom identifying all of the significant details.	Students construct a model of an atom identifying most of the significant details.	Students construct a model of an atom identifying some of the significant details.	Students construct a model of an atom identifying very few of the significant details.
CHEMICAL REACTIONS				
9-10.3.5. Identify the reactants and products in a chemical reaction	Students identify the reactants and products in a chemical reaction with no errors.	Students identify the reactants and products in a chemical reaction with no significant errors.	Students identify the reactants and products in a chemical reaction with few significant errors.	Students identify the reactants and products in a chemical reaction with many significant errors.

Standard 3: Students understand the basic concepts and principles of physical science.

Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
9-10.3.6. Distinguish between balanced and unbalanced chemical equations	Students distinguish between balanced and unbalanced chemical equations with no errors.	Students distinguish between balanced and unbalanced chemical equations with no significant errors.	Students distinguish between balanced and unbalanced chemical equations with few significant errors.	Students distinguish between balanced and unbalanced chemical equations with many significant errors.
FORCE AND MOTION				
9-10.3.7. Use Newton's Laws to describe the motion of an object	Students use Newton's laws to provide a description of the motion of an object with no errors.	Students use Newton's laws to provide a description of the motion of an object with no significant errors.	Students use Newton's laws to provide a description of the motion of an object with few significant errors.	Students use Newton's laws to provide a description of the motion of an object with many significant errors.
ENERGY TRANSFER AND TRANSFORMATION				
9-10.3.8. Describe the relationships between kinetic and potential energy in basic transformations (e.g., physical and chemical changes)	Students describe the relationships between kinetic and potential energy in an extensive variety of basic transformations.	Students describe the relationships between kinetic and potential energy in a variety of basic transformations.	Students describe the relationships between kinetic and potential energy in some different basic transformations.	Students describe the relationships between kinetic and potential energy in few basic transformations.
VIBRATIONS AND WAVES				
9-10.3.9. Compare and contrast electromagnetic and mechanical waves (i.e. energy, energy transfer, medium)	Students compare and contrast electromagnetic and mechanical waves identifying all of the significant details.	Students compare and contrast electromagnetic and mechanical waves identifying most of the significant details.	Students compare and contrast electromagnetic and mechanical waves identifying some of the significant details.	Students compare and contrast electromagnetic and mechanical waves identifying few of the significant details.
ELECTRICITY AND MAGNETISM				
9-10.3.10. Describe the differences between series and parallel circuits	Students describe the differences between series and parallel circuits with no errors.	Students describe the differences between series and parallel circuits with no significant errors.	Students describe the differences between series and parallel circuits with few significant errors.	Students describe the differences between series and parallel circuits with many significant errors.

Standard 4: Life Science

Standard 4: Students understand the basic concepts and principles of life science.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
STRUCTURE AND FUNCTION				
9-10.4.1. Relate cell function to cell structure (i.e., cell wall, cell membrane, nucleus, mitochondria, chloroplast)	Students relate cell functions to cell structures with no errors.	Students relate cell functions to cell structures with no significant errors.	Students relate cell functions to cell structures with few significant errors.	Students relate cell functions to cell structures with many significant errors.
9-10.4.2. Relate the functions of cells in multi-cellular organisms to their cell type (e.g., nerve cells, blood cells, guard cells)	Students relate the functions of cells in multi-cellular organisms to their cell type with no errors.	Students relate the functions of cells in multi-cellular organisms to their cell type with no significant errors.	Students relate the functions of cells in multi-cellular organisms to their cell type with few significant errors.	Students relate the functions of cells in multi-cellular organisms to their cell type with many significant errors.
9-10.4.3. Explain the relationship between protein structure and function	Students explain the relationship between protein structure and function with no errors.	Students explain the relationship between protein structure and function with no significant errors.	Students explain the relationship between protein structure and function with few significant errors.	Students explain the relationship between protein structure and with many significant errors.
GENETICS AND REPRODUCTION				
9-10.4.4. Relate DNA, genes, and chromosomes	Students relate DNA, genes, and chromosomes with no errors.	Students relate DNA, genes, and chromosomes with no significant errors.	Students relate DNA, genes, and chromosomes with few significant errors.	Students relate DNA, genes, and chromosomes with many significant errors.
9-10.4.5. Explain the relationship between spontaneous changes in DNA and a source of genetic variation	Students explain the relationship between spontaneous changes in DNA and genetic variation with no errors.	Students explain the relationship between spontaneous changes in DNA and genetic variation with no significant errors.	Students explain the relationship between spontaneous changes in DNA and genetic variation with few significant errors.	Students explain the relationship between spontaneous changes in DNA and genetic variation with many significant errors.

Standard 4: Students understand the basic concepts and principles of life science.

Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
9-10.4.6. Compare and contrast the results of mitosis and meiosis (i.e., mitosis involves a nuclear division that results in two daughter nuclei that are identical to the parent nucleus; meiosis involves two nuclear divisions that result in gametes cells containing half the number of chromosomes)	Students compare and contrast the results of mitosis and meiosis with no errors.	Students compare and contrast the results of mitosis and meiosis with no significant errors.	Students compare and contrast the results of mitosis and meiosis with few significant errors.	Students compare and contrast the results of mitosis and meiosis with many significant errors.
9-10.4.7. Apply the basic concepts of genetics to predict inherited traits (i.e., segregation, independent assortment, dominant and recessive traits)	Students apply the basic concepts of genetics to predict inherited traits with no errors.	Students apply the basic concepts of genetics to predict inherited traits with no significant errors.	Students apply the basic concepts of genetics to predict inherited traits with few significant errors.	Students apply the basic concepts of genetics to predict inherited traits with many significant errors.
NATURAL SELECTION AND BIOLOGICAL EVOLUTION				
9-10.4.8. Relate the concept of natural selection to its evolutionary consequences	Students identify all of the significant details relating the concept of natural selection to its evolutionary consequence.	Students identify most of the significant details relating the concept of natural selection to its evolutionary consequence.	Students identify some of the significant details relating the concept of natural selection to its evolutionary consequence.	Students identify few of the significant details relating the concept of natural selection to its evolutionary consequence.
9-10.4.9. Identify evidence for evolution (e.g., fossil records, vestigial structures, similarities between organisms, and DNA)	Students identify an extensive variety of evidence for evolution.	Students identify many different types of evidence for evolution.	Students identify some different types of evidence for evolution.	Students identify few different types of evidence for evolution.
INTERDEPENDENCE AMONG ORGANISMS				
9-10.4.10. Explain the energy and organization related to trophic pyramids	Students explain all of the significant details explaining the energy and organization related to trophic pyramids.	Students explain most of the significant details explaining the energy and organization related to trophic pyramids.	Students explain some of the significant details explaining the energy and organization related to trophic pyramids.	Students explain few of the significant details explaining the energy and organization related to trophic pyramids.

Standard 4: Students understand the basic concepts and principles of life science.

Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
MATTER AND ENERGY IN LIVING SYSTEMS				
9-10.4.11. Explain how matter and energy flow through living and nonliving components in an ecosystem (e.g., carbon cycle, water cycle, nitrogen cycle)	Students explain all of the significant details of how matter and energy flow through components in an ecosystem.	Students explain most of the significant details of how matter and energy flow through components in an ecosystem.	Students explain some of the significant details of how matter and energy flow through components in an ecosystem.	Students explain few of the significant details of how matter and energy flow through components in an ecosystem.
9-10.4.12. Compare and contrast photosynthesis and cellular respiration	Students identify all of the significant similarities and differences between photosynthesis and cellular respiration.	Students identify most of the significant similarities and differences between photosynthesis and cellular respiration.	Students identify some of the significant similarities and differences between photosynthesis and cellular respiration.	Students identify few of the significant similarities and differences between photosynthesis and cellular respiration.

Standard 5: Earth and Space Science

Standard 5: Students understand the basic concepts and principles of earth and space science.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
THE UNIVERSE				
9-10.5.1. Explain the relationship between the Big Bang Theory and the origin and evolution of the universe	Students provide an insightful explanation of the relationship between the Big Bang Theory and the origin and evolution of the universe.	Students provide a reasonable explanation of the relationship between the Big Bang Theory and the origin and evolution of the universe.	Students provide a superficial explanation of the relationship between the Big Bang Theory and the origin and evolution of the universe.	Students provide an unreasonable explanation of the relationship between the Big Bang Theory and the origin and evolution of the universe.
EARTH'S HISTORY				
9-10.5.2. Relate the changes in the Earth's atmosphere to the evolution of photosynthetic life forms	Students identify all of the significant details relating the changes in the Earth's atmosphere to the evolution of photosynthetic life forms.	Students identify most of the significant details relating the changes in the Earth's atmosphere to the evolution of photosynthetic life forms.	Students identify some of the significant details relating the changes in the Earth's atmosphere to the evolution of photosynthetic life forms.	Students identify few of the significant details relating the changes in the Earth's atmosphere to the evolution of photosynthetic life forms.
ENERGY IN THE EARTH SYSTEM				
9-10.5.3. Explain how energy in the Earth system is governed by convection, conduction, and radiation (e.g., heat moves in the Earth's mantle by convection, conduction occurs along the mid-oceanic ridges, energy from the Sun reaches the Earth through radiation)	Students explain, with no errors, how energy in the Earth system is governed by convection, conduction, and radiation.	Students explain, with no significant errors, how energy in the Earth system is governed by convection, conduction, and radiation.	Students explain, with few significant errors, how energy in the Earth system is governed by convection, conduction, and radiation.	Students explain, with many significant errors, how energy in the Earth system is governed by convection, conduction, and radiation.
GEOLOGIC PROCESSES, HUMAN ACTIVITIES, AND THE ENVIRONMENT				
9-10.5.4. Identify the short-term and long-term effects of physical processes (e.g., plate tectonics, extreme weather phenomenon) on the environment and society	Students identify all of the significant details relating short and long term effects of physical processes on the environment and society.	Students identify most of the significant details relating short and long term effects of physical processes on the environment and society.	Students identify some of the significant details relating short and long term effects of physical processes on the environment and society.	Students identify few of the significant details relating short and long term effects of physical processes on the environment and society.

Standard 5: Students understand the basic concepts and principles of earth and space science.

Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
9-10.5.5. Analyze how evidence of past natural hazards and geologic events has predicted subsequent hazards and events (e.g. Gap time method to predict earthquakes and tsunamis)	Students provide insightful analysis how evidence of past natural hazards and geologic events has predicted subsequent hazards and events.	Students provide reasonable analysis how evidence of past natural hazards and geologic events has predicted subsequent hazards and events.	Students provide superficial analysis how evidence of past natural hazards and geologic events has predicted subsequent hazards and events.	Students provide unreasonable analysis how past evidence of past natural hazards and geologic events has predicted subsequent hazards and events.
9-10.5.6. Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment	Students explain an extensive variety of effects of human activities on the environment.	Students explain a variety of effects of human activities on the environment.	Students explain some different effects of human activities on the environment.	Students explain few effects of human activities on the environment.

Standard 6: Science and Technology

Standard 6: Students understand relations between science and technology.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
TECHNOLOGICAL DESIGN				
9-10.6.1. Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)	Students use an extensive variety of appropriate technologies and techniques to solve a problem.	Students use a variety of appropriate technologies and techniques to solve a problem.	Students use some different appropriate technologies and techniques to solve a problem.	Students use few appropriate technologies and techniques to solve a problem.
9-10.6.2. Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)	Students explain how scientific principles have been used to create an extensive variety of common technologies.	Students explain how scientific principles have been used to create a variety of common technologies.	Students explain how scientific principles have been used to create some different common technologies.	Students explain how scientific principles have been used to create few common technologies.
TECHNOLOGY AND SOCIETY				
9-10.6.3. Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment	Students explain all of the significant details of how emerging technologies may impact society and the environment.	Students explain most of the significant details of how emerging technologies may impact society and the environment.	Students explain some of the significant details of how emerging technologies may impact society and the environment.	Students explain few of the significant details of how emerging technologies may impact society and the environment.

Standard 7: Science and Other Areas

Standard 7: Students understand relations between science and personal, social, and environmental issues.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
SCIENCE AND PERSONAL HEALTH 9-10.7.1. Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition	Students explain all of the significant details of how personal health is related to fitness, substance abuse, sexual activity, and nutrition.	Students explain most of the significant details of how personal health is related to fitness, substance abuse, sexual activity, and nutrition.	Students explain some of the significant details of how personal health is related to fitness, substance abuse, sexual activity, and nutrition.	Students explain few of the significant details of how personal health is related to fitness, substance abuse, sexual activity, and nutrition.
SCIENCE AND ENVIRONMENTAL ISSUES 9-10.7.2. Identify factors that affect populations (e.g., food webs, carrying capacity, overpopulation, disease, food supply, algal blooms, resources, conservation practices)	Students identify all of the significant details relating factors that affect populations.	Students identify most of the significant details relating factors that affect populations.	Students identify some of the significant details relating factors that affect populations.	Students identify few of the significant details relating factors that affect populations.
SCIENCE AND SOCIAL ISSUES <i>No benchmark expectations at this level</i>				

Standard 8: History and Nature of Science

Standard 8: Students understand the history and nature of science.				
Benchmark Expectations	PROFICIENCY DESCRIPTOR			
	ADVANCED PROFICIENT	PROFICIENT	PARTIALLY PROFICIENT	NOVICE
Grade 9-10				
PEOPLE IN SCIENCE				
9-10.8.1. Identify the role of scientists in theoretical and applied science (e.g., careers, employment possibilities)	Students identify all of the significant details of the role of scientists in theoretical and applied science.	Students identify most of the significant details of the role of scientists in theoretical and applied science.	Students identify some of the significant details of the role of scientists in theoretical and applied science.	Students identify few of the significant details of the role of scientists in theoretical and applied science.
9-10.8.2. Identify the human characteristics that influence scientific advancement (e.g., intellectual honesty, openness, objectivity, curiosity, skepticism, ethical conduct, cooperation)	Students identify an extensive variety of human characteristics that influence scientific advancement.	Students identify a variety of human characteristics that influence scientific advancement.	Students identify some different human characteristics that influence scientific advancement.	Students identify few human characteristics that influence scientific advancement.
9-10.8.3. Explain how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity	Students provide an insightful explanation how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity.	Students provide an unreasonable explanation how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity.	Students provide a superficial explanation how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity.	Students provide an unreasonable explanation how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity.
SCIENTIFIC KNOWLEDGE				
9-10.8.4. Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)	Students identify an extensive variety of theories that have changed over time.	Students identify a variety of theories that have changed over time.	Students identify some different theories that have changed over time.	Students identify few theories that have changed over time.
SCIENCE AND SOCIETY				
9-10.8.5. Explain how views and attitudes have influenced the development of science (e.g., religion, previous knowledge, cultural tradition, superstition, folklore, legends)	Students provide an insightful explanation of views and attitudes that have influenced the development of science.	Students provide a reasonable explanation of views and attitudes that have influenced the development of science.	Students provide a superficial explanation of views and attitudes that have influenced the development of science.	Students provide an unreasonable explanation of views and attitudes that have influenced the development of science.

