Instructional Material Bureau
Summer 2011 Adoption Review Institute
Form F: *Publisher Alignment Form & Review Scoring Rubric*
(Science 8)

Publisher information and instructions:

Corporation or Publisher:	**Submitted by (name) :**	
Division or Imprint: **Phone:**	**E-mail:**	
Title of Student Edition:	**ISBN:**	**Lexile Score:**
Title of Teacher Edition:	**ISBN:**	

Alignment contact information:

Completed by (name):	**E-mail:**
Phone:	**Date:**

SECTION I (CONTENT STANDARDS) CITATION REQUIREMENTS AND SCORING

A. Enter three (3) citations (one in each cell) for each indicator; enter the page number and the paragraph.
   a. Example: [123-5] would refer the reviewer to Page 123, paragraph 5 to find the evidence of the indicator.
B. Citations for "Content Standards, Benchmarks & Performance Standards" must refer to the Student Edition.
C. Citations for "Other Relevant Criteria" must refer to the Teacher Edition.
D. Each citation must address an increasing level of cognition:
   a. Citation 1: Cites material that provides **an introduction** to the content at the **basic knowledge and recall** level.
   b. Citation 2: Cites material that **builds on prior knowledge/skills** at the **comprehension and application** level.
   c. Citation 3: Cites material that builds on prior knowledge/skills **and integrates content to meet the standard at the analysis, synthesis, or evaluation** levels.
E. At least two citations must be found satisfactory by the Review Team to meet the requirements of the standard. Scoring will be as follows:
   a. Satisfactory citations at the "Basic Knowledge" level only, or no valid citations, score **zero (0) points**.
   b. Satisfactory citations at both the "Basic Knowledge" and "Application" level score a total of **six (6) points**.
   c. Satisfactory citations at all three levels score a total of **ten (10) points**.

SEE THE BEGINNING OF SECTION II FOR REQUIREMENTS AND SCORING OF "OTHER RELEVANT CRITERIA" CITATIONS

Instructional Material Bureau
Summer 2011 Adoption Review Institute

THIS PAGE FOR REVIEW INSTITUTE STAFF

FACILITATOR USE ONLY

FINAL SCORE VERIFICATION (TO BE COMPLETED BY THE FACILITATOR)		
	Verified: **90% or Higher**	**Facilitator Signature**
	Verified: **89% or Lower**	**Facilitator Signature**

Reviewer Name:	**Reviewer Number:**	**Date:**	**Facilitator:**

REVIEWER INSTRUCTIONS

Enter score in the **"Item Score"** column. Every **numbered item** must be scored. Scoring must follow these criteria:

1. Citations that you verify at the "Basic Knowledge" level only, or no valid citations, score zero (0) points.
2. Citations that you verify at both the "Basic Knowledge" and "Application" level score a total of six (6) points.
3. Citations that you verify at all three levels score a total of ten (10) points.

Enter the total number of points in the "YES" column in the **Page Total Score** box at the bottom of each page.

POINTS	DEFINITION
0	Citations did not meet the requirements of the standard for at least two levels.
6	Citations met the requirements of the standard at two of the levels.
10	Citations met the requirements of the standard at all three levels.

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
Strand I: Scientific Thinking and Practice **Standard I:** Understand the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting, and validating to think critically.					
I-A. **Benchmark:** Use scientific methods to develop questions, design and conduct experiments using appropriate technologies, analyze and evaluate results, make predictions, and communicate findings.					
I-A(1). Evaluate the accuracy and reproducibility of data and observations.				1	
I-A(2). Use a variety of technologies to gather, analyze and interpret scientific data.				2	
I-A(3). Know how to recognize and explain anomalous data.				3	
I-B. **Benchmark:** Understand the processes of scientific investigation and how scientific inquiry results in scientific knowledge.					
I-B(1). Examine alternative explanations for observations.				4	
I-B(2). Describe ways in which science differs from other ways of knowing and from other bodies of knowledge (e.g., experimentation, logical arguments, skepticism).				5	
I-B(3). Know that scientific knowledge is built on questions posed as testable hypotheses, which are tested until the results are accepted by peers.				6	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
I-C. **Benchmark:** Use mathematical ideas, tools, and techniques to understand scientific knowledge.					
I-C(1). Use mathematical expressions and techniques to explain data and observations and to communicate findings (e.g., formulas and equations, significant figures, graphing, sampling, estimation, mean).				7	
I-C(2). Create models to describe phenomena.				8	
Strand II: The Content of Science **Standard I (Physical Science):** Understand the structure and properties of matter, the characteristics of energy, and the interactions between matter and energy.					
I-A. **Benchmark:** Know the forms and properties of matter and how matter interacts.					
I-A(1). **Properties of Matter**: Know how to use density, boiling point, freezing point, conductivity, and color to identify various substances.				9	
I-A(2). **Properties of Matter**: Distinguish between metals and non-metals.				10	
I-A(3). **Properties of Matter**: Understand the differences among elements, compounds, and mixtures by:					
I-A(3)a. classification of materials as elements, compounds, or mixtures				11	
I-A(3)b. interpretation of chemical formulas				12	
I-A(3)c. separation of mixtures into compounds by methods including evaporation, filtration, screening, magnetism.				13	
I-A(4). **Structure of Matter**: Identify the protons, neutrons, and electrons within				14	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
an atom and describe their locations (i.e., in the nucleus or in motion outside the nucleus).					
I-A(5). **Structure of Matter**: Explain that elements are organized in the periodic table according to their properties.				15	
I-A(6). **Structure of Matter**: Know that compounds are made of two or more elements, but not all sets of elements can combine to form compounds.				16	
I-A(7). **Changes in Matter**: Know that phase changes are physical changes that can be reversed (e.g., evaporation, condensation, melting).				17	
I-A(8). **Changes in Matter**: Describe various familiar physical and chemical changes that occur naturally (e.g., snow melting, photosynthesis, rusting, burning).				18	
I-A(9). **Changes in Matter**: Identify factors that influence the rate at which chemical reactions occur (e.g., temperature, concentration).				19	
I-A(10). **Changes in Matter**: Know that chemical reactions can absorb energy (endothermic reactions) or release energy (exothermic reactions).				20	
II-B. **Benchmark:** Explain the physical processes involved in the transfer, change, and conservation of energy.					
I-B(1). **Energy Transformation**: Know that energy exists in many forms and that when energy is transformed some energy is usually converted to heat.				21	
I-B(2). **Energy Transformation**: Know that kinetic energy is a measure of the energy of an object in motion and potential					

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
energy is a measure of an object's position or composition, including:					
I-B(2)a. transformation of gravitational potential energy of position into kinetic energy of motion by a falling object.				22	
I-B(3). **Energy Transformation**: Distinguish between renewable and nonrenewable sources of energy.				23	
I-B(4). **Energy Transformation**: Know that electrical energy is the flow of electrons through electrical conductors that connect sources of electrical energy to points of use, including:					
I-B(4)a. electrical current paths through parallel and series circuits				24	
I-B(5). **Waves:** Understand how light and radio waves carry energy through vacuum or matter by:					
I-B(5)a. straight-line travel unless an object is encountered				25	
I-B(5)b. reflection by a mirror, refraction by a lens, absorption by a dark object				26	
I-B(5)c. separation of white light into different wavelengths by prisms				27	
I-B(5)d. visibility of objects due to light emission or scattering				28	
I-B(6). **Waves:** Understand that vibrations of matter (e.g., sound, earthquakes, water waves) carry wave energy, including:					
I-B(6)a. sound transmission through solids, liquids, and gases				29	
I-B(6)b. relationship of pitch and loudness of sound to rate and distance				30	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
(amplitude) of vibration					
I-B(6)c. ripples made by objects dropped in water				31	
I-C. **Benchmark:** Understand the structure of organisms and the function of cells in living systems.					
I-C(1). **Forces:** Know that there are fundamental forces in nature (e.g., gravity, electromagnetic forces, nuclear forces).				32	
I-C(2). **Forces:** Know that a force has both magnitude and direction.				33	
I-C(3). **Forces:** Analyze the separate forces acting on an object at rest or in motion (e.g., gravity, elastic forces, friction), including how multiple forces reinforce or cancel one another to result in a net force that acts on an object.				34	
I-C(4). **Forces:** Know that electric charge produces electrical fields and magnets produce magnetic fields.				35	
I-C(5). **Forces:** Know how a moving magnetic field can produce an electric current (generator) and how an electric current can produce a magnetic field (electromagnet).				36	
I-C(6). **Forces:** Know that Earth has a magnetic field.				37	
I-C(7). **Motion:** Know that an object's motion is always described relative to some other object or point (i.e., frame of reference).				38	
I-C(8). **Motion:** Understand and apply Newton's Laws of Motion:					
I-C(8)a. Objects in motion will continue in motion and objects at rest will remain at rest unless acted upon by				39	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
an unbalanced force (inertia).					
I-C(8)b. If a greater force is applied to an object a proportionally greater acceleration will occur.				40	
I-C(8)c. If an object has more mass the effect of an applied force is proportionally less				41	
Strand II: The Content of Science **Standard II (Life Science):** Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.					
II-A. **Benchmark:** Explain the diverse structures and functions of living things and the complex relationships between living things and their environments.					
II-A(1) Describe how matter moves through ecosystems (e.g., water cycle, carbon cycle).				42	
II-A(2) Describe how energy flows through ecosystems (e.g., sunlight, green plants, food for animals).				43	
II-A(3) Explain how a change in the flow of energy can impact an ecosystem (e.g., the amount of sunlight available for plant growth, global climate change).				44	
II-B. **Benchmark:** Understand how traits are passed from one generation to the next and how species evolve.					
II-B(1). Understand that living organisms are made mostly of molecules consisting of a limited number of elements (e.g., carbon, hydrogen, nitrogen, oxygen).				45	
II-B(2). Identify DNA as the chemical compound involved in heredity in living organisms.				46	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
II-B(3). Describe the widespread role of carbon in the chemistry of living systems.				47	
II-C. **Benchmark:** Understand the structure of organisms and the function of cells in living systems.					
II-C(1). Describe how cells use chemical energy obtained from food to conduct cellular functions (i.e., respiration).				48	
II-C(2). Explain that photosynthesis in green plants captures the energy from the sun and stores it chemically.				49	
II-C(3). Describe how chemical substances can influence cellular activity (e.g., pH).				50	
Strand II: The Content of Science Standard III (Earth and Space Science): Understand the structure of Earth, the solar system, and the universe, the interconnections among them, and the processes and interactions of Earth's systems.					
III-A. **Benchmark:** Describe how the concepts of energy, matter, and force can be used to explain the observed behavior of the solar system, the universe, and their structures.					
III-A(1). Understand how energy from the sun and other stars, in the form of light, travels long distances to reach Earth.				51	
III-A(2). Explain how the properties of light (e.g., emission, reflection, refraction) emitted from the sun and stars are used to learn about the universe, including:					
III-A(2)a. distances in the solar system and the universe				52	
III-A(2)b. temperatures of different stars				53	
III-A(3). Understand how gravitational force acts on objects in the solar system and the					

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
universe, including:					
III-A(3)a. similar action on masses on Earth and on other objects in the solar system				54	
III-A(3)b. explanation of the orbits of the planets around the sun				55	
III-B. **Benchmark:** Describe the structure of Earth and its atmosphere and explain how energy, matter, and forces shape Earth's systems.					
III-B(1). Describe the role of pressure (and heat) in the rock cycle.				56	
III-B(2). Understand the unique role water plays on Earth, including:					
III-B(2)a. ability to remain liquid at most Earth temperatures				57	
III-B(2)b. properties of water related to processes in the water cycle: evaporation, condensation, precipitation, surface run-off, percolation				58	
III-B(2)c. dissolving of minerals and gases and transport to the oceans				59	
III-B(2)d. fresh and salt water in oceans, rivers, lakes, and glaciers				60	
III-B(2)e. reactant in photosynthesis				61	
III-B(3). Understand the geologic conditions that have resulted in energy resources (e.g., oil, coal, natural gas) available in New Mexico				62	
Strand III: Science and Society **Standard I:** Understand how scientific discoveries, inventions, practices, and knowledge influence, and are influenced by, individuals and societies.					

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
I-A. **Benchmark** Explain how scientific discoveries and inventions have changed individuals and societies.					
I-A(1). Analyze the interrelationship between science and technology (e.g., germ theory, vaccines).				63	
I-A(2). Describe how scientific information can help to explain environmental phenomena (e.g., floods, earthquakes, volcanoes, fire, extreme weather).				64	
I-A(3). Describe how technological revolutions have significantly influenced societies (e.g., energy production, warfare, space exploration).				65	
I-A(4). Critically analyze risks and benefits associated with technologies related to energy production.				66	

Reviewer's Section I Totals	

REVIEWER # _____

PUBLISHER: SECTION II CITATION REQUIREMENTS AND SCORING

A. Citations for "Other Relevant Criteria" will usually refer to the Teacher Edition, but may refer to the Student Edition.
B. Enter three (3) citations (one in each cell) for each indicator; enter the page number and the paragraph.
   a. Example: [123-5] would refer the reviewer to +Page 123, paragraph 5 to find the evidence of the indicator.
C. All three citations must be found satisfactory by the Review Team to meet the requirements of the standard.

REVIEWER: USE THE TEACHER'S EDITION AND THE STUDENT EDITION TO CONDUCT THIS PORTION OF THE REVIEW

Mark your score in the "Item Score" column.
KEY:
0 = Citations did not meet the requirements of the standard.
5 = Citations met the requirements of the standard.

SECTION II: OTHER RELEVANT CRITERIA	Citation 1	Citation 2	Citation 3	Item Number	Item Score
A. The textbook provides pictorials, graphics, and illustrations that represent diversity of cultures, race, color, creed, national origin, age, gender, language or disability.	Citation 1	Citation 2	Citation 3	1	
B. The textbook provides a variety of cultural perspectives used within the lesson content.	Citation 1	Citation 2	Citation 3	2	
C. The textbook provides reading selections with activities requiring student responses that promote respect for all people regardless of race, color, creed, national origin, age, gender, language or disability.	Citation 1	Citation 2	Citation 3	3	
D. The textbook presents appropriate role models within content rather than an oversimplified standardized image of a person or group; avoids stereotyping.	Citation 1	Citation 2	Citation 3	4	

REVIEWER # _____

SECTION II: OTHER RELEVANT CRITERIA	Citation 1	Citation 2	Citation 3	Item Number	Item Score
E. The textbook provides an introduction to the lesson including the comprehension questions (i.e. focus questions or guiding questions) the student will be expected to answer at the conclusion of the classroom instruction.	Citation 1	Citation 2	Citation 3	5	
F. The textbook introduces a vocabulary list at the beginning of each lesson.	Citation 1	Citation 2	Citation 3	6	
G. The textbook provides visual aids to assist comprehension.	Citation 1	Citation 2	Citation 3	7	
H. The textbook provides extensive and varied opportunities to practice lesson objectives /targeted skills.	Citation 1	Citation 2	Citation 3	8	
I. The textbook provides the student with ongoing review and practice for the purpose of retaining previously acquired knowledge.	Citation 1	Citation 2	Citation 3	9	
J. The textbook provides writing activities for students to make connections across reading selections and their personal experiences. Some ***examples*** of this might include: 1. discussing/responding to open-ended prompts; 2. tracing cause and effect relationships; 3. comparing real life situations; dramatizing, or; 4. tracing themes, patterns.	Citation 1	Citation 2	Citation 3	10	
K. The textbook provides speaking activities for students to make connections across reading selections and their personal experiences. Some ***examples*** of this might include: • discussing/responding to open-ended prompts; • tracing cause and effect relationships; • comparing real life situations; dramatizing, or; tracing themes, patterns.	Citation 1	Citation 2	Citation 3	11	

REVIEWER # _____

SECTION II: OTHER RELEVANT CRITERIA	Citation 1	Citation 2	Citation 3	Item Number	Item Score
L. The textbook incorporates increasingly complex practice into lessons requiring analysis, evaluation and synthesis.	Citation 1	Citation 2	Citation 3	12	
M. The textbook provides activities that elicit critical thinking, such as, research, defining a problem, examining evidence, analyzing assumptions and biases, avoiding emotional reasoning, avoiding oversimplification, considering other interpretations, tolerating ambiguity, and metacongition.	Citation 1	Citation 2	Citation 3	13	
N. The textbook includes comprehensive laboratory projects and assignments for students.	Citation 1	Citation 2	Citation 3	14	
O. The textbook provides a Reference Section that includes: Glossary, Academic Word List and other relevant information to support student learning.	Citation 1	Citation 2	Citation 3	15	
P. The textbook provides relevant tables such as the periodic table of elements, chart of the elements, classification of plants and animals, and summary pages for relevant content and formulas.	Citation 1	Citation 2	Citation 3	16	
Q. The Teacher's Edition presents an overview of the scope and sequence of skills and concepts.	Citation 1	Citation 2	Citation 3	17	
R. Within each lesson the Teacher's Edition provides articulated **objectives** for varied skill levels of the students.	Citation 1	Citation 2	Citation 3	18	
S. The Teacher's Edition provides instructional support for laboratory projects and assignments for students.	Citation 1	Citation 2	Citation 3	19	
T. The Teacher's Edition provides correlation citations of the New Mexico Science Content Standards, Benchmarks and Performance Standards to the corresponding location in the Student Edition.	Citation 1	Citation 2	Citation 3	20	
U. At the beginning of each unit, chapter or lesson there is a list of standards covered within the unit, chapter or lesson.	Citation 1	Citation 2	Citation 3	21	

REVIEWER # _____

SECTION II: OTHER RELEVANT CRITERIA	Citation 1	Citation 2	Citation 3	Item Number	Item Score
V. The Teacher's Edition provides leveled **activities** for differentiated instructional to meet the needs of all students including struggling and accelerated learners.	Citation 1	Citation 2	Citation 3	22	
W. The Teachers Edition provides instructional strategies for English language learners.	Citation 1	Citation 2	Citation 3	23	
X. The Teacher's Edition includes content and information that support a variety of approaches to instruction, including (score each item separately):					
1. Writing activities	Citation 1	Citation 2	Citation 3	24	
2. Project-based learning assignments	Citation 1	Citation 2	Citation 3	25	
3. Interdisciplinary instruction	Citation 1	Citation 2	Citation 3	26	
4. Thematic instruction across genres	Citation 1	Citation 2	Citation 3	27	
Y. The Teacher's Edition provides the teacher with instructional strategies for every lesson.	Citation 1	Citation 2	Citation 3	28	
Z. The Teacher's Edition provides instructional support for explicitly teaching comprehension.	Citation 1	Citation 2	Citation 3	29	
AA. The Teacher's Edition provides pre and post-tests that cover lesson and/or chapter content.	Citation 1	Citation 2	Citation 3	30	
BB. The Teacher's Edition provides student assessments that are accompanied by an item analysis and score interpretation for the identification of skill areas in need of further instruction.	Citation 1	Citation 2	Citation 3	31	
CC. The Teacher's Edition provides strategies for students to use technology-based knowledge and skills in the curriculum area, such as, student presentations and	Citation 1	Citation 2	Citation 3	32	

REVIEWER # _____

SECTION II: OTHER RELEVANT CRITERIA	Citation 1	Citation 2	Citation 3	Item Number	Item Score
projects.					
Reviewer's Section II Total					Total Section Score
Reviewer's Grand Total					Total Review Score