Instructional Material Bureau
Summer 2011 Adoption Review Institute
Form F: *Publisher Alignment Form & Review Scoring Rubric*
(Science 7)

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). Use a variety of print and web resources to collect information, inform investigations, and answer a scientific question or hypothesis.				1	
I-A(2). Use models to explain the relationships between variables being investigated.				2	
I-B. **Benchmark:** Understand the processes of scientific investigation and how scientific inquiry results in scientific knowledge.					
I-B(1). Describe how bias can affect scientific investigation and conclusions.				3	
I-B(2). Critique procedures used to investigate a hypothesis.				4	
I-B(3). Analyze and evaluate scientific explanations.				5	
I-C. **Benchmark:** Use mathematical ideas, tools, and techniques to understand scientific knowledge.					
I-C(1). Understand that the number of data (sample size) influences the reliability of a prediction.				6	

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
I-C(2). Use mathematical expressions to represent data and observations collected in scientific investigations.				7	
I-C(3). Select and use an appropriate model to examine a phenomenon.				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). Explain how matter is transferred from one organism to another and between organisms and their environment (e.g., consumption, the water cycle, the carbon cycle, the nitrogen cycle).				9	
I-A(2). Know that the total amount of matter (mass) remains constant although its form, location, and properties may change (e.g., matter in the food web).				10	
I-A(3). Identify characteristics of radioactivity, including:				11	
I-A(3)a. decay in time of some elements to others				12	
I-A(3)b. release of energy				13	
I-A(3)c. damage to cells				14	
I-A(1). Describe how substances react chemically in characteristic ways to form new substances (compounds) with different properties (e.g., carbon and oxygen combine to form carbon dioxide in respiration).				15	
I-A(1). Know that chemical reactions are				16	

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
essential to life processes.					
I-B. **Benchmark:** Explain the physical processes involved in the transfer, change, and conservation of energy.					
I-B(1). Know how various forms of energy are transformed through organisms and ecosystems, including:					
I-B(1)a. sunlight and photosynthesis				17	
I-B(1)b. energy transformation in living systems (e.g., cellular processes changing chemical energy to heat and motion)				18	
I-B(1)c. effect of mankind's use of energy and other activities on living systems (e.g., global warming, water quality).				19	
I-C. **Benchmark:** Describe and explain forces that produce motion in objects.					
I-C(1). Know that forces cause motion in living systems, including:				20	
I-C(1)a. the principle of a lever and how it gives mechanical advantage to a muscular/skeletal system to lift objects				21	
I-C(1)b. forces in specific systems in the human body (e.g., how the heart generates blood pressure, how muscles contract and expand to produce motion).				22	
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.					
I-A. **Benchmark:** Explain the diverse structures and					

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
functions of living things and the complex relationships between living things and their environments.					
I-A(1) **Populations and Ecosystems**: Identify the living and nonliving parts of an ecosystem and describe the relationships among these components.				23	
I-A(2) **Populations and Ecosystems**: Explain biomes (i.e., aquatic, desert, rainforest, grasslands, tundra) and describe the New Mexico biome.				24	
I-A(3) **Populations and Ecosystems**: Explain how individuals of species that exist together interact with their environment to create an ecosystem (e.g., populations, communities, niches, habitats, food webs).				25	
I-A(4) **Populations and Ecosystems**: Explain the conditions and resources needed to sustain life in specific ecosystems.				26	
I-A(5) **Populations and Ecosystems**: Describe how the availability of resources and physical factors limit growth (e.g., quantity of light and water, range of temperature, composition of soil) and how the water, carbon, and nitrogen cycles contribute to the availability of those resources to support living systems.				27	
I-A(6) **Biodiversity:** Understand how diverse species fill all niches in an ecosystem.				28	
I-A(7) **Biodiversity:** Know how to classify organisms: domain, kingdom, phylum, class, order, family, genus, species.				29	
II-B. **Benchmark:** Understand the genetic basis for inheritance and the basic concepts of biological					

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
evolution.					
II-B(1). **Reproduction**: Know that reproduction is a characteristic of all living things and is essential to the continuation of a species.				30	
II-B(2). **Reproduction**: Identify the differences between sexual and asexual reproduction.				31	
II-B(3). **Reproduction**: Know that, in sexual reproduction, an egg and sperm unite to begin the development of a new individual.				32	
II-B(4). **Reproduction**: Know that organisms that sexually reproduce fertile offspring are members of the same species.				33	
II-B(5). **Heredity:** Understand that some characteristics are passed from parent to offspring as inherited traits and others are acquired from interactions with the environment.				34	
II-B(6). **Heredity:** Know that hereditary information is contained in genes that are located in chromosomes, including:					
II-B(6)a. determination of traits by genes				35	
II-B(6)b. traits determined by one or many genes				36	
II-B(6)c. more than one trait sometimes influenced by a single gene.				37	
II-B(7). **Biological Evolution:** Describe how typical traits may change from generation to generation due to environmental influences (e.g., color of skin, shape of eyes, camouflage, shape of beak).				38	
II-B(8). **Biological Evolution:** Explain that diversity within a species is developed				39	

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
by gradual changes over many generations					
II-B(9). **Biological Evolution:** Know that organisms can acquire unique characteristics through naturally occurring genetic variations.				40	
II-B(10). **Biological Evolution:** Identify adaptations that favor the survival of organisms in their environments (e.g., camouflage, shape of beak).				41	
II-B(11). **Biological Evolution:** Understand the process of natural selection.				42	
II-B(12). **Biological Evolution:** Explain how species adapt to changes in the environment or become extinct and that extinction of species is common in the history of living things.				43	
II-B(13). **Biological Evolution:** Know that the fossil record documents the appearance, diversification, and extinction of many life forms.				44	
II-C. **Benchmark:** Understand the structure of organisms and the function of cells in living systems.					
II-C(1). **Structure of Organisms**: Understand that organisms are composed of cells and identify unicellular and multicellular organisms.				45	
II-C(2). **Structure of Organisms**: Explain how organs are composed of tissues of different types of cells (e.g., skin, bone, muscle, heart, intestines).				46	
II-C(3). **Function of Cells:** Understand that many basic functions of organisms are carried out in cells, including:					
II-C(3)a. growth and division to produce more				47	

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
cells (mitosis)					
II-C(3)b. specialized functions of cells (e.g., reproduction, nerve-signal transmission, digestion, excretion, movement, transport of oxygen).				48	
II-C(4). **Function of Cells:** Compare the structure and processes of plant cells and animal cells.				49	
II-C(5). **Function of Cells:** Describe how some cells respond to stimuli (e.g., light, heat, pressure, gravity).				50	
II-C(6). **Function of Cells:** Describe how factors (radiation, UV light, drugs) can damage cellular structure or function.				51	
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). Explain why Earth is unique in our solar system in its ability to support life.				52	
III-A(2). Explain how energy from the sun supports life on Earth.				53	
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). Understand how the remains of living things give us information about the history of Earth, including:					

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CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
III-B(1)a. layers of sedimentary rock, the fossil record, and radioactive dating showing that life has been present on Earth for more than 3.5 billion years.				54	
III-B(2). Understand how living organisms have played many roles in changes of Earth's systems through time (e.g., atmospheric composition, creation of soil, impact on Earth's surface).				55	
III-B(3). Know that changes to ecosystems sometimes decrease the capacity of the environment to support some life forms and are difficult and/or costly to remediate.				56	
Strand III: Science and Society **Standard I:** Understand how scientific discoveries, inventions, practices, and knowledge influence, and are influenced by, individuals and societies.					
I-A. **Benchmark** Explain how scientific discoveries and inventions have changed individuals and societies.					
I-A(1). Analyze the contributions of science to health as they relate to personal decisions about smoking, drugs, alcohol, and sexual activity.				57	
I-A(2). Analyze how technologies have been responsible for advances in medicine (e.g., vaccines, antibiotics, microscopes, DNA technologies).				58	
I-A(3). Describe how scientific information can help individuals and communities respond to health emergencies (e.g., CPR, epidemics, HIV, bio-terrorism).				59	

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	

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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	

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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	

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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	

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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