Instructional Material Bureau
Summer 2011 Adoption Review Institute
Form F: *Publisher Alignment Form & Review Scoring Rubric*
(Science 6)

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). Construct appropriate graphs from data and develop qualitative and quantitative statements about the relationships between variables being investigated.				1	
I-A(2). Examine the reasonableness of data supporting a proposed scientific explanation.				2	
I-A(3). Justify predictions and conclusions based on data.				3	
I-B. **Benchmark:** Understand the processes of scientific investigation and how scientific inquiry results in scientific knowledge.					
I-B(1). Understand that scientific knowledge is continually reviewed, critiqued, and revised as new data become available.				4	
I-B(2). Understand that scientific investigations use common processes that include the collection of relevant data and observations, accurate measurements, the identification and control of variables, and logical reasoning to				5	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
formulate hypotheses and explanations.					
I-B(3). Understand that not all investigations result in defensible scientific explanations.				6	
I-C. **Benchmark:** Use mathematical ideas, tools, and techniques to understand scientific knowledge.					
I-C(1). Evaluate the usefulness and relevance of data to an investigation.				7	
I-C(2). Use probabilities, patterns, and relationships to explain data and observations.				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). Understand that substances have characteristic properties and identify the properties of various substances (e.g., density, boiling point, solubility, chemical reactivity).				9	
I-A(2). Use properties to identify substances (e.g., for minerals: the hardness, streak, color, reactivity to acid, cleavage, fracture).				10	
I-A(3). Know that there are about 100 known elements that combine to produce compounds in living organisms and nonliving substances.				11	
I-A(4). Know the differences between chemical and physical properties and how these properties can influence the interactions of matter.				12	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
I-B. **Benchmark:** Explain the physical processes involved in the transfer, change, and conservation of energy.					
I-B(1). Identify various types of energy (e.g., heat, light, mechanical, electrical, chemical, nuclear).				13	
I-B(1). Understand that heat energy can be transferred through conduction, radiation and convection.				14	
I-B(2). Know that there are many forms of energy transfer but that the total amount of energy is conserved (i.e., that energy is neither created nor destroyed).				15	
I-B(3). Understand that some energy travels as waves (e.g., seismic, light, sound), including:					
I-B(3)a. the sun as source of energy for many processes on Earth				16	
I-B(3)b. different wavelengths of sunlight (e.g., visible, ultraviolet, infrared)				17	
I-B(3)c. vibrations of matter (e.g., sound, earthquakes)				18	
I-B(3)d. different speeds through different materials.				19	
I-C. **Benchmark:** Describe and explain forces that produce motion in objects.					
I-C(1). Know that every object exerts gravitational force on every other object dependent on the masses and distance of separation (e.g., motions of celestial objects, tides).				20	
I-C(2). Know that gravitational force is hard to detect unless one of the objects (e.g., Earth) has a lot of mass.				21	
Strand II: The Content of Science					

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.					
II-B. **Benchmark:** Explain the diverse structures and functions of living things and the complex relationships between living things and their environments.					
II-B(1). Understand how organisms interact with their physical environments to meet their needs (i.e., food, water, air) and how the water cycle is essential to most living systems.				22	
II-B(2). Describe how weather and geologic events (e.g., volcanoes, earthquakes) affect the function of living systems.				23	
II-B(3). Describe how organisms have adapted to various environmental conditions.				24	
II-B. **Benchmark:** Understand the genetic basis for inheritance and the basic concepts of biological evolution.					
II-B(1). Understand that the fossil record provides data for how living organisms have evolved.				25	
II-B(2). Describe how species have responded to changing environmental conditions over time (e.g., extinction, adaptation).				26	
II-C. **Benchmark:** Understand the characteristics, structures, and functions of cells.					
II-C(1). Explain how fossil fuels were formed from animal and plant cells.				27	
II-C(2). Describe the differences between substances that were produced by living organisms (e.g., fossil fuels) and substances that result from nonliving				28	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
processes (e.g., igneous rocks).					
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					
III-A(1). **Universe**: Describe the objects in the universe, including:					
III-A(1)a. billions of galaxies, each containing billions of stars				29	
III-A(1)b. different sizes, temperatures, and colors of stars in the Milky Way galaxy				30	
III-A(2). **Solar System**: Locate the solar system in the Milky Way galaxy				31	
III-A(3). **Solar System**: Identify the components of the solar system, and describe their defining characteristics and motions in space, including:					
III-A(3)a. sun as a medium sized star				32	
III-A(3)b. sun's composition (i.e., hydrogen, helium) and energy production				33	
III-A(3)c. nine planets, their moons, asteroids				34	
III-A(4). **Solar System**: Know that the regular and predictable motions of the Earth-moon-sun system explain phenomena on Earth, including:					
III-A(4)a. Earth's motion in relation to a year, a day, the seasons, the phases of the moon, eclipses, tides, and shadows				35	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
III-A(4)b. moon's orbit around Earth once in 28 days in relation to the phases of the moon				36	
III-B. **Benchmark:** Explain the physical processes involved in the transfer, change, and conservation of energy.					
III-B(1). **Structure of Earth**: Know that Earth is composed of layers that include a crust, mantle, and core				37	
III-B(2). **Structure of Earth**: Know that Earth's crust is divided into plates that move very slowly, in response to movements in the mantle				38	
III-B(3). **Structure of Earth**: Know that sedimentary, igneous, and metamorphic rocks contain evidence of the materials, temperatures, and forces that created them				39	
III-B(4). **Weather and Climate**: Describe the composition (i.e., nitrogen, oxygen, water vapor) and strata of Earth's atmosphere, and differences between the atmosphere of Earth and those of other planets				40	
III-B(5). **Weather and Climate:** Understand factors that create and influence weather and climate, including:					
III-B(5)a. heat, air movement, pressure, humidity, oceans				41	
III-B(5)b. how clouds form by condensation of water vapor				42	
III-B(5)c. how weather patterns are related to atmospheric pressure				43	
III-B(5)d. global patterns of atmospheric movement (e.g., El Niño)				44	

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
III-B(5)e. factors that can impact Earth's climate (e.g., volcanic eruptions, impacts of asteroids, glaciers)				45	
III-B(6). **Weather and Climate:** Understand how to use weather maps and data (e.g., barometric pressure, wind speeds, humidity) to predict weather				46	
III-B(7). **Changes to Earth:** Know that landforms are created and change through a combination of constructive and destructive forces, including:				47	
III-B(7)a. weathering of rock and soil, transportation, deposition of sediment, and tectonic activity				48	
III-B(7)b. similarities and differences between current and past processes on Earth's surface (e.g., erosion, plate tectonics, changes in atmospheric composition)				49	
III-B(7)c. impact of volcanoes and faults on New Mexico geology				50	
III-B(8). **Changes to Earth:** Understand the history of Earth and how information about it comes from layers of sedimentary rock, including:					
III-B(8)a. sediments and fossils as a record of a very slowly changing world				51	
III-B(8)b. evidence of asteroid impact, volcanic and glacial activity				52	
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.					

REVIEWER # _____

CONTENT STANDARDS, BENCHMARKS & PERFORMANCE STANDARDS	Citation 1 Basic Knowledge	Citation 2 Application	Citation 3 Analysis	Item #	Item Score
I-A(1). Examine the role of scientific knowledge in decisions (e.g., space exploration, what to eat, preventive medicine and medical treatment).				53	
I-A(2). Describe the technologies responsible for revolutionizing information processing and communications (e.g., computers, cellular phones, Internet).				54	
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