

INSTRUCTIONAL MATERIALS ADOPTION

Score Sheet

- | | | |
|------|--------------------------------|-------|
| I. | Generic Evaluation Criteria | _____ |
| II. | Instructional Content Analysis | _____ |
| III. | Specific Science Criteria | _____ |

PUBLISHER:	McDougal Littell
SUBJECT:	Science
COURSE:	Science K-12
TITLE:	McDougal Littell Science, Integrated Course 1
COPYRIGHT DATE:	2005
SE ISBN:	0-61-842299-4
TE ISBN:	0-61-842300-1

PART I -GENERIC EVALUATION CRITERIA GROUP V – 2006 TO 2012

GRADE SIX

R-E-S-P-O-N-S-E			CRITERIA	NOTES
Yes	No	N/A		
✓	_____	_____	<p>I. INTER-ETHNIC</p> <p>The instructional material meets the requirements of inter-ethnic: concepts, content and illustrations, as set by West Virginia Board of Education Policy (Adopted December 1970).</p>	
✓	_____	_____	<p>II. EQUAL OPPORTUNITY</p> <p>The instructional material meets the requirements of equal opportunity: concept, content, illustration, heritage, roles contributions, experiences and achievements of males and females in American and other cultures, as set by West Virginia Board of Education Policy (Adopted May 1975).</p>	

**Part II – Instructional Content Analysis
GRADE SIX**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses							
	<i>I=In-depth 80%</i>	<i>A=Adequate 80%</i>	<i>M=Minimal 60%</i>	<i>N=Nonexistent Less than 60%</i>	I	A	M	N

The instructional materials program presents information and opportunities in a manner that enables the student an understanding of:

1.	<u>History and the Nature of Science</u>	a. demonstrate an understanding that scientists formulate and test their explanations of nature using observation and experiments	✓	—	—	—	—
_____		b. demonstrate an understanding of careers and contributions of men and women of diverse cultures to the development of science	✓	—	—	—	—
_____		2. <u>Science as Inquiry</u>					
_____		a. the instructional materials program presents information and opportunities that support a minimum of 50% active inquiry, investigations and hands-on activities					
_____		b. cooperate and collaborate to ask questions, find answers, solve problem, conduct investigations to further an appreciation for scientific discovery	✓	—	—	—	—
_____		c. formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection	✓	—	—	—	—
_____		d. apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe	✓	—	—	—	—
_____		e. use a variety of materials and scientific instruments to conduct explorations, investigations and experiments of the natural world	✓	—	—	—	—

**PART III - SPECIFIC CRITERIA
GRADE SIX (CATS 6)**

The Coordinated and Thematic Science Grade Six (CATS 6) objectives evaluate, interpret, and predict conditions and phenomena of the living and designed worlds. Through a spiraling, inquiry-based program of study, all students will demonstrate scientific literacy in the fields of biology, chemistry, physics, and earth/space sciences. The subject matter is delivered through a coordinated, integrated approach with an emphasis on the development of the major science themes of systems, changes, and models. Students will engage in active inquires, investigations, and hands-on activities for a minimum of 50% of the instructional time to develop conceptual understanding and research/laboratory skills. Safety instruction is integrated in all activities.

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1.	<u>Science Subject Matter/Concepts Objectives</u>							
	a. the instructional materials program presents information and opportunities in a manner that enables the student to demonstrate an understanding of the interconnections of biological, earth and space and physical science concepts (SC.6.4.1)					✓		
2.	<u>Structure and Function in Living Systems:</u>							
	a. describe the interactions of various cycles that provide energy through decomposition, photosynthesis, respiration, transpiration in the food web (e.g., nitrogen cycle) (SC.6.4.2)					✓		
	b. classify living organisms according to their structure and functions (SC.6.4.3)					✓		
	c. compare the similarities of internal features of organisms which can be used to infer relatedness (SC.6.4.4)					✓		
	d. explain how abiotic and biotic factors affect the interdependence among organisms (SC.6.4.5)					✓		
	e. construct models of plant and animal cells which show the basic parts (SC.6.4.6)					✓		

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3.	<u>Life Cycles of Organisms:</u>							
	<u>Reproduction and Heredity</u>							
	a.	compare growth patterns in different plants (SC.6.4.7)				✓		
4.	<u>Populations and Ecosystems</u>							
	a.	demonstrate changes in populations of organisms due to limiting environmental factors (SC.6.4.8)				✓		
	b.	analyze the ecological consequences of human interactions with the environment (SC.6.4.9)			✓			
5.	<u>Structure and Properties of Matter</u>							
	a.	classify and investigate properties and processes (changes) as either physical or chemical (SC.6.4.10)			✓			
	b.	investigate the composition of matter concluding the matter is composed of tiny particles and that the particles are the same for the same type of matter (SC.6.4.11)			✓			
	c.	investigate the formation and separation of simple mixtures (SC.6.4.12)				✓		
	d.	use indicators to identify substances as acidic, basic or neutral (SC.6.4.13)				✓		
	e.	identify the symbols of elements (SC.6.4.14)				✓		
	f.	use the periodic table to identify elements as solids, liquids and gases, metals or nonmetals (SC.6.4.15)				✓		
	g.	describe properties of matter (SC.6.4.16)			✓			
6.	<u>Energy</u>							
	a.	investigate the properties of the electromagnetic spectrum (SC.6.4.17)			✓			
	b.	identify factors affecting absorption, reflection and refraction (SC.6.4.18-SC.6.4.19)			✓			
	c.	describe the flow of heat between objects (SC.6.4.20)			✓			
	d.	diagram simple parallel and series circuits (SC.6.4.21)				✓		

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7.	<u>Motion and Forces</u>							
	a. interpret the relationship of mass to gravitational force (SC.6.4.22)					✓		
	b. examine the simple machines and the forces involved; apply the effects of balanced and unbalanced forces on motion of objects (SC.6.4.23)					✓		
	c. explain motion in terms of frames or reference and analyze graphs depicting motion and predicted future motion (SC.6.4.24)					✓		
8.	<u>Structure of the Earths System</u>							
	a. track major atmospheric events (SC.6.4.25)					✓		
	b. describe and demonstrate the forces and results of plate tectonics (SC.6.4.26)						✓	
9.	<u>Earth's History</u>							
	a. describe changes in the rock record due to geologic and physical events over time (SC.6.4.27)					✓		
10.	<u>Earth and the Solar System</u>							
	a. recognize the phases of the Moon (SC.6.4.28)				✓			
	b. investigate models of Earth-Moon-Sun relationships (SC.6.4.29)				✓			
	c. compare the Earth's tilt and revolution to the seasonal changes (SC.6.4.30)				✓			

INSTRUCTIONAL MATERIALS ADOPTION

Score Sheet

- I. Generic Evaluation Criteria _____
- II. Instructional Content Analysis _____
- III. Specific Science Criteria _____

PUBLISHER: McDougal Littell

SUBJECT: Science

COURSE: Science K-12

TITLE: McDougal Littell Science, Integrated Course 2

COPYRIGHT DATE: 2005

SE ISBN: 0-61-842301-X

TE ISBN: 0-61-842302-8

**PART I -GENERIC EVALUATION CRITERIA
GROUP V – 2006 TO 2012**

GRADE SEVEN

R-E-S-P-O-N-S-E			CRITERIA	NOTES
Yes	No	N/A		
✓			I. INTER-ETHNIC The instructional material meets the requirements of inter-ethnic: concepts, content and illustrations, as set by West Virginia Board of Education Policy (Adopted December 1970).	
✓			II. EQUAL OPPORTUNITY The instructional material meets the requirements of equal opportunity: concept, content, illustration, heritage, roles contributions, experiences and achievements of males and females in American and other cultures, as set by West Virginia Board of Education Policy (Adopted May 1975).	

**Part II – Instructional Content Analysis
GRADE SEVEN**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses							
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The instructional materials program presents information and opportunities in a manner that enables the student an understanding of:

	1.	<u>History and the Nature of Science</u>					
_____		a. demonstrate an understanding that scientists formulate and test their explanations of nature using observation and experiments	✓	_____	_____	_____	_____
_____		b. demonstrate an understanding of careers and contributions of men and women of diverse cultures to the development of science	✓	_____	_____	_____	_____
	2.	<u>Science as Inquiry</u>					
_____		a. the instructional materials program presents information and opportunities that support a minimum of 50% active inquiry, investigations and hands-on activities	✓	_____	_____	_____	_____
_____		b. cooperate and collaborate to ask questions, find answers, solve problem, conduct investigations to further an appreciation for scientific discovery	✓	_____	_____	_____	_____
_____		c. formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection	✓	_____	_____	_____	_____
_____		d. apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe;	✓	_____	_____	_____	_____
_____		e. use a variety of materials and scientific instruments to conduct explorations, investigations and experiments of the natural world	✓	_____	_____	_____	_____

**PART III - SPECIFIC CRITERIA
GRADE SEVEN**

The Coordinated and Thematic Science Grade Seven (CATS 7) objectives evaluate, interpret, and predict conditions and phenomena of the living and designed worlds. Through a spiraling, inquiry-based program of study, all students will demonstrate scientific literacy in the fields of biology, chemistry, physics and earth/space sciences. The subject matter is delivered through a coordinated, integrated approach with an emphasis on the development of the major science themes of systems, changes and models. Students will engage in active inquires, investigations and hands-on activities for a minimum of 50% of the instructional time to develop conceptual understanding and research/laboratory skills. Safety instruction is integrated in all activities.

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1. <u>Science Themes/Subject Matter</u>								
a. the instructional materials program presents information and opportunities in a manner that enables the student to demonstrate an understanding of the interconnections of biological, earth and space, and physical science concepts (SC.7.4.1)					✓			
2. <u>Structure and Function in Living Systems</u>								
a. develop an understanding of the interrelationships among biology, chemistry, physics, and the earth/space sciences (SC.7.4.1)					✓			
b. identify and describe disease-causing organisms and the diseases they cause (e.g., bacteria, viruses, protozoa, fungi) (SC.7.4.2)					✓			
c. explain how human body systems work together (e.g., skeletal, muscular and integumentary systems) (SC.7.4.3)					✓			
d. compare the variations in cells, tissues and organs of the skeletal system of different organisms (SC.7.4.4)						✓		

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5.	<u>Structure and Properties of Matter</u>							
	a. differentiate among elements, compounds and mixtures (SC.7.4.13)					✓		
	b. evaluate types of solutions (e.g., solutes and solvents, relative concentrations, conductivity, pH) (SC.7.4.14)					✓		
6.	<u>Chemical Reactions</u>							
	a. identify chemical reactions involving acids and bases (SC.7.4.15)					✓		
	b. follow the neutralization process using color indicators (SC.7.4.15)					✓		
	c. identify the salt formed in chemical reactions (SC.7.4.15)					✓		
	d. write word equations to describe chemical reactions (SC.7.4.16)					✓		
7.	<u>Energy</u>							
	a. describe the behavior of individual particles and verify the conservation of matter while exploring the melting and freezing of pure substances (SC.7.4.17)					✓		
	b. trace the energy flow during phase changes (SC.7.4.18)					✓		
	c. relate characteristics of light and sound to waves (e.g., amplitude, pitch, wavelength, reflection, absorption rate, color) (SC.7.4.19)						✓	
	d. investigate application of lenses to science (e.g., microscopes, telescopes, magnifying glass, periscopes) (SC.7.4.20)						✓	
	e. identify characteristics of AC and DC circuits (e.g., batteries, transformers) (SC.7.4.21)					✓		
	f. explain conservation of matter and energy qualitatively and recognize that energy can be changed from one form to another (SC.7.4.22)					✓		

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8.	<u>Motions and Forces</u>							
	a. experiment with simple machines to demonstrate the relationship between forces and distance (SC.7.4.23)					✓		
	b. explain the effect of gravity on falling objects (e.g., object dropped on earth and on moon) (SC.7.4.24)					✓		
	c. analyze motion graphically and use vectors to represent direction of motion (SC.7.4.25)					✓		
9.	<u>Structure of the Earth System</u>							
	a. depict and relate causes of tides, surfs and currents (SC.7.4.26)						✓	
	b. examine the relationships among air masses, oceans, weather, convection currents and the sun’s energy (SC.7.4.27)					✓		
	c. interpret and create topographical maps (SC.7.4.28)					✓		
10.	<u>Earth’s History</u>							
	a. compare and contrast periods of geologic time using rocks and rock layers (SC.7.4.29)					✓		
11.	<u>Earth and the Solar System</u>							
	a. explain and model using manipulatives how the Earth’s tilt and revolution determine the seasonal changes and weather patterns (SC.7.4.30)					✓		
	b. recognize the changes involved in the life cycle of a star (SC.7.4.30)					✓		
	c. describe and compare the physical characteristics of celestial objects (SC.7.4.32)					✓		
	d. compare the characteristics of the members of our solar system (SC.7.4.33)					✓		

INSTRUCTIONAL MATERIALS ADOPTION

Score Sheet

- | | | |
|------|--------------------------------|-------|
| I. | Generic Evaluation Criteria | _____ |
| II. | Instructional Content Analysis | _____ |
| III. | Specific Science Criteria | _____ |

PUBLISHER:	McDougal Littell
SUBJECT:	Science
COURSE:	Science K-12
TITLE:	McDougal Littell Science, Integrated Course 3
COPYRIGHT DATE:	2005
SE ISBN:	0-61-842303-6
TE ISBN:	0-61-842304-4

PART I -GENERIC EVALUATION CRITERIA GROUP V – 2006 TO 2012

GRADE EIGHT

R-E-S-P-O-N-S-E			CRITERIA	NOTES
Yes	No	N/A		
✓ _____	_____ _____	_____ _____	I. INTER-ETHNIC The instructional material meets the requirements of inter-ethnic: concepts, content and illustrations, as set by West Virginia Board of Education Policy (Adopted December 1970).	
✓ _____	_____ _____	_____ _____	II. EQUAL OPPORTUNITY The instructional material meets the requirements of equal opportunity: concept, content, illustration, heritage, roles contributions, experiences and achievements of males and females in American and other cultures, as set by West Virginia Board of Education Policy (Adopted May 1975).	

**Part II – Instructional Content Analysis
GRADE EIGHT**

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The instructional materials program presents information and opportunities in a manner that enables the student an understanding of:

	1.	<u>History and the Nature of Science</u>				
_____		a. the instructional materials program presents information and opportunities that enable students to demonstrate an understanding that scientists formulate and test their explanations of nature using observation and experiments	✓	_____	_____	_____
_____	2.	<u>Science as Inquiry</u>				
_____		a. the instructional materials program presents information and opportunities that support a minimum of 50% active inquiry, investigations and hands-on activities	✓	_____	_____	_____
_____		b. cooperate and collaborate to ask questions, find answers, solve problem, conduct investigations to further an appreciation for scientific discovery	✓	_____	_____	_____
_____		c. formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection	✓	_____	_____	_____
_____		d. apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe	✓	_____	_____	_____
_____		e. use a variety of materials and scientific instruments to conduct explorations, investigations and experiments of the natural world	✓	_____	_____	_____

**PART III - SPECIFIC CRITERIA
GRADE 8 (CATS 8)**

The Coordinated and Thematic Science Grade Eight (CATS 8) objectives evaluate, interpret, and predict conditions and phenomena of the living and designed worlds. Through a spiraling, inquiry-based program of study, all students will demonstrate scientific literacy in the fields of biology, chemistry, physics, and earth/space sciences. The subject matter is delivered through a coordinated, integrated approach with an emphasis on the development of the major science themes of systems, changes, and models. Students will engage in active inquires, investigations, and hands-on activities for a minimum of 50% of the instructional time to develop conceptual understanding and research/laboratory skills. Safety instruction is integrated in all activities.

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1. <u>Science Subject Matter/Concepts Objectives</u>								
a. the instructional materials program presents information and opportunities in a manner that enables the student to demonstrate an understanding of the interconnections of biological, earth and space, and physical science concepts (SC.7.4.1)					✓			
2. <u>Structure and Function in Living Systems</u>								
a. identify and explain the structures and functions of cell organelles (SC.8.4.2)						✓		
b. explain how the circulatory, respiratory and reproductive systems work together in the human body (SC.8.4.3)						✓		
c. compare the variations in cells, tissues and organs of the circulatory, respiratory and reproductive systems of different organisms (SC.8.4.4)						✓		
d. demonstrate how living cells obtain the essentials of life through chemical reactions of transpiration, respiration and photosynthesis (SC.8.4.5)					✓			

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3.	<u>Life Cycles of Organisms: Reproduction and Heredity</u>							
	a. analyze how behaviors of organisms lead to species continuity (SC.8.4.6)					✓		
	b. demonstrate the basic principles of genetics to include Mendel’s laws, DNA, monohybrid crosses, production of body cells, genes, chromosomes, inherited traits (SC.8.4.7)				✓			
	c. examine how patterns of human development are similar to other vertebrates (SC.8.4.8)						✓	
4.	<u>Populations and Ecosystems</u>							
	a. group unknown organisms based on observable characteristics using dichotomous keys (SC.8.4.9)					✓		
	b. trace matter and energy flow in a food web as it goes from sunlight to producers to consumers, design an environment in which the chemical and energy needs for the growth, reproduction and development of plants are met (e.g., food pyramids, decomposition) (SC.8.4.10)					✓		
5.	<u>Structure and Properties of Matter</u>							
	a. use the periodic table to locate and classify elements as metallic, non-metallic or metalloid (SC.8.4.11)				✓			
	b. trace the history of the development of the atom (SC.8.4.12)					✓		
	c. determine the number of protons, neutrons and electrons and use information to draw a Bohr model of the atom (SC.8.4.13)							✓
	d. assign an element to its chemical family on the periodic table and note similarities in outer energy level electrons within each family (SC.8.4.14)				✓			

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8.	<u>Motion and Forces</u>							
	a. graph and interpret the relationships of distance versus time, speed versus time, acceleration versus time (SC.8.4.22)					✓		
	b. describe Newton’s Laws of Motion (SC.8.4.23) examples:							
	• illustrate qualitatively					✓		
	• illustrate quantitatively							
	c. illustrate quantitatively mechanical advantage of simple machines (SC.8.4.24)					✓		
9.	<u>Structure of the Earth System</u>							
	a. investigate problems related to water quality and quantity of surface and ground water (SC.8.4.25)				✓			
	b. identify the principle forces of plate tectonics and related geological events (SC.8.4.26)				✓			
	c. relate global patterns of atmospheric movement on local weather and the impact of oceans on weather and climate (SC.8.4.27)					✓		
10.	<u>Earth’s History</u>							
	a. relate rock formations to the types of fossil fuels (SC.8.4.28)						✓	
	b. describe the factors involved in mining resources (SC.8.4.29)					✓		
	c. construct and interpret rock layer models through stratigraphic interpretation (SC.8.4.30)				✓			

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11. <u>Earth and the Solar System</u>								
_____ a. recognize societal concerns with exploration and colonization of space (SC.8.4.31)						✓		
_____ b. diagram the motions of the Sun, Moon and Earth and how eclipses, tides, meteor showers are related to these motions (SC.8.4.32)						✓		
_____ c. compare and contrast the orbits of planets and comets (SC.8.4.33)						✓		
_____ d. compare and contrast the differences between the shape, size, and components of galaxies (SC.8.4.34)						✓		