INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Harcourt School Publishers**	
INSTRUCTIONAL MATERIALS: **Mathematics**	
SUBJECT: **Harcourt Math Grade 5**	
COPYRIGHT DATE(S): **2005**	GRADE: **5th**
SE ISBN: **0-15-340430-2**	TE ISBN: **0-15-340446-9/0-15-340447-7/0-15-340448-5**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Harcourt School Publishers

INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Harcourt Math Grade 5

COPYRIGHT DATE(S): 2005

SE ISBN: 0-15-340430-2

TE ISBN: 0-15-340446-9/0-15-340447-7/0-15-340448-5

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	✔				
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.		✔			
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.		✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					✔	___	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					✔	___	___	___

GRADE: 5th

VENDOR: Harcourt School Publishers

INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Harcourt Math Grade 5

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SE ISBN: 0-15-340430-2

TE ISBN: 0-15-340446-9/0-15-340447-7/0-15-340448-5

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
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- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				___	✔	___	___
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				✔	___	___	___
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔	___	___	___
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5.	Offer suggestions/prompts for facilitating classroom discussion and activities.				✔			
_____	6.	Provide a variety of methods to help students with a range of abilities or learning styles or interests.				✔			
_____	7.	Provide multiple means of assessment which include reasoning/communication skills.				✔			
_____	8.	Provide continuous ongoing assessment aligned with learning experiences.					✔		

GRADE: 5th

VENDOR: Harcourt School Publishers INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Harcourt Math Grade 5 COPYRIGHT DATE(S): 2005

SE ISBN: 0-15-340430-2 TE ISBN: 0-15-340446-9/0-15-340447-7/0-15-340448-5

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT		*(IMR Committee) Responses*							
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
_____	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
_____	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				✔				
_____	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
_____	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
_____	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)					✔			
_____	8. add and subtract fractions and mixed numbers (MA.5.1.8)				✔				
_____	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
_____	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)					✔			
_____	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				✔				
_____	12. solve story problems using multiple strategies (MA.5.1.12)				✔				
B. ALGEBRA									
_____	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)				✔				
_____	2. use input/output model (MA.5.2.2)					✔			
_____	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
_____	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
_____	1. classify and compare polygons (MA.5.3.1)				✔				
_____	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
_____	3. measure angles using a protractor (MA.5.3.3)					✔			
_____	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)						✔		
	6. draw a similar figure using a scale (MA.5.3.6)							✔	
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)						✔		
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)						✔		
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)						✔		
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)						✔		
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)						✔		
	7. calculate elapsed time (MA.5.4.7)						✔		
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)						✔		
	9. determine actual measurement from scale drawings (MA.5.4.9)						✔		
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)						✔		
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)						✔		
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
	4. carry out experiments to determine probability (MA.5.5.4)						✔		
	5. construct a circle graph (MA.5.5.5)						✔		

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Houghton Mifflin**	
INSTRUCTIONAL MATERIALS: **Houghton Mifflin Math**	
SUBJECT: **Math**	
COPYRIGHT DATE(S): **2005**	GRADE: **5th**
SE ISBN: **0-618-27722-6**	TE ISBN: **0-618-33867-5 Vol 1, 0-618-33868-3 Vol 2**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Houghton Mifflin

INSTRUCTIONAL MATERIALS: Houghton Mifflin Math

SUBJECT: Pupil Edition, Complete

COPYRIGHT DATE(S): 2005

SE ISBN: 0-618-27722-6

TE ISBN: 0-618-33867-5 Vol 1, 0-618-33868-3 Vol 2

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

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All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____		
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____		
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
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_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Houghton Mifflin

INSTRUCTIONAL MATERIALS: Houghton Mifflin Math

SUBJECT: Pupil Edition, Complete

COPYRIGHT DATE(S): 2005

SE ISBN: 0-618-27722-6

TE ISBN: 0-618-33867-5 Vol 1, 0-618-33868-3 Vol 2

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

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_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				____	✔	____	____
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				____	✔	____	____
_____	3.	Provide opportunities for students to make connections among mathematical topics.				____	✔	____	____
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				____	✔	____	____

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_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: Houghton Mifflin INSTRUCTIONAL MATERIALS: Houghton Mifflin Math

SUBJECT: Pupil Edition, Complete COPYRIGHT DATE(S): 2005

SE ISBN: 0-618-27722-6 TE ISBN: 0-618-33867-5 Vol 1, 0-618-33868-3 Vol 2

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
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All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)					✔			
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)							✔	
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				✔				
	8. add and subtract fractions and mixed numbers (MA.5.1.8)				✔				
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)				✔				
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				✔				
	12. solve story problems using multiple strategies (MA.5.1.12)				✔				
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
	3. measure angles using a protractor (MA.5.3.3)							✔	
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)						✔		
	6. draw a similar figure using a scale (MA.5.3.6)							✔	
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)						✔		
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)						✔		
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)						✔		
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)						✔		
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)						✔		
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)						✔		
	7. calculate elapsed time (MA.5.4.7)						✔		
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					✔			
	9. determine actual measurement from scale drawings (MA.5.4.9)						✔		
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)							✔	
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)						✔		
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
	4. carry out experiments to determine probability (MA.5.5.4)						✔		
	5. construct a circle graph (MA.5.5.5)							✔	

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Kendall/Hunt Publishing Company**	
INSTRUCTIONAL MATERIALS: **Mathematics, Grades K-5**	
SUBJECT: **Student Guide**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **0-7872-8152-2 Student Guide Book**	TE ISBN: **0-7872-8518-8 T.I.G.**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Kendall/Hunt Publishing Company

INSTRUCTIONAL MATERIALS: Mathematics, Grades K-5

SUBJECT: Student Guide

COPYRIGHT DATE(S): 2004

SE ISBN: 0-7872-8152-2

TE ISBN: 0-7872-8518-8

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Kendall/Hunt Publishing Company

INSTRUCTIONAL MATERIALS: Mathematics, Grades K-5

SUBJECT: Student Guide

COPYRIGHT DATE(S): 2004

SE ISBN: 0-7872-8152-2

TE ISBN: 0-7872-8518-8

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				___	✔	___	___
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				___	✔	___	___
_____	3.	Provide opportunities for students to make connections among mathematical topics.				___	✔	___	___
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: Kendall/Hunt Publishing Company INSTRUCTIONAL MATERIALS: Mathematics, Grades K-5

SUBJECT: Student Guide COPYRIGHT DATE(S): 2004

SE ISBN: 0-7872-8152-2 TE ISBN: 0-7872-8518-8

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	✔				

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT		*(IMR Committee) Responses*							
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)					✔			
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)								✔
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				✔				
	8. add and subtract fractions and mixed numbers (MA.5.1.8)					✔			
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)					✔			
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				✔				
	12. solve story problems using multiple strategies (MA.5.1.12)				✔				
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)				✔				
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)								✔
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					✔			
	6. draw a similar figure using a scale (MA.5.3.6)					✔			
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)								✔
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)				✔				
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					✔			
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					✔			
	7. calculate elapsed time (MA.5.4.7)								✔
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					✔			
	9. determine actual measurement from scale drawings (MA.5.4.9)					✔			
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)				✔				
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					✔			
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)				✔				
	4. carry out experiments to determine probability (MA.5.5.4)				✔				
	5. construct a circle graph (MA.5.5.5)				✔				

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **MacMillan/McGraw-Hill**	
INSTRUCTIONAL MATERIALS: **Clements, et al: MACMILLAN/MCGRAW-HILL MATH**	
SUBJECT: **West Virginia Pupil Edition**	
COPYRIGHT DATE(S): **2005**	GRADE: **5th**
SE ISBN: **0-02-105141-0**	TE ISBN: **0-02-104423-6/0-02-104-424-4**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: MacMillan/McGraw-Hill

INSTRUCTIONAL MATERIALS: Clements, et al: MACMILLAN/MCGRAW-HILL MATH

SUBJECT: West Virginia Pupil Edition

COPYRIGHT DATE(S): 2005

SE ISBN: 0-02-105141-0

TE ISBN: 0-02-104423-6/0-02-104424-4

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category III: Mathematics Content**

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- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	✔				
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.		✔			
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	✔				

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					✔	___	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					✔	___	___	___

GRADE: 5th

VENDOR: MacMillan/McGraw-Hill

INSTRUCTIONAL MATERIALS: Clements, et al: MACMILLAN/MCGRAW-HILL MATH

SUBJECT: West Virginia Pupil Edition

COPYRIGHT DATE(S): 2005

SE ISBN: 0-02-105141-0

TE ISBN: 0-02-104423-6/0-02-104424-4

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

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- **Category I: Standards Based Components**
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- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
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_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).					✔		
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				✔			
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔			
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5.	Offer suggestions/prompts for facilitating classroom discussion and activities.				✔			
_____	6.	Provide a variety of methods to help students with a range of abilities or learning styles or interests.				✔			
_____	7.	Provide multiple means of assessment which include reasoning/communication skills.					✔		
_____	8.	Provide continuous ongoing assessment aligned with learning experiences.					✔		

GRADE: 5th

VENDOR: MacMillan/McGraw-Hill

INSTRUCTIONAL MATERIALS: Clements, et al: MACMILLAN/MCGRAW-HILL MATH

SUBJECT: West Virginia Pupil Edition

COPYRIGHT DATE(S): 2005

SE ISBN: 0-02-105141-0

TE ISBN: 0-02-104423-6/0-02-104424-4

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)						✔		
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)						✔		
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)						✔		
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)						✔		
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)						✔		
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)					✔			
	8. add and subtract fractions and mixed numbers (MA.5.1.8)					✔			
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)						✔		
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)							✔	
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)						✔		
	12. solve story problems using multiple strategies (MA.5.1.12)					✔			
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)						✔		
	2. use input/output model (MA.5.2.2)							✔	
	3. write an equation using a variable to solve problems (MA.5.2.3)						✔		
	4. evaluate an expression given a value for the variable (MA.5.2.4)						✔		
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)						✔		
	3. measure angles using a protractor (MA.5.3.3)						✔		
	4. draw a design with more than one line of symmetry (MA.5.3.4)						✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					✔			
_____	6. draw a similar figure using a scale (MA.5.3.6)					✔			
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					✔			
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					✔			
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					✔			
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)				✔				
_____	7. calculate elapsed time (MA.5.4.7)					✔			
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					✔			
_____	9. determine actual measurement from scale drawings (MA.5.4.9)					✔			
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					✔			
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					✔			
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)				✔				
_____	4. carry out experiments to determine probability (MA.5.5.4)					✔			
_____	5. construct a circle graph (MA.5.5.5)					✔			

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **McDougal Littell**	
INSTRUCTIONAL MATERIALS: **McDougal Littell**	
SUBJECT: **McDougal Littell Middle School Math Course 1**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **0-618-08759-1**	TE ISBN: **0-618-24973-7**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: McDougal Littell

INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: McDougal Littell Middle School Math Course 1

COPYRIGHT DATE(S): 2004

SE ISBN: 0-618-08759-1

TE ISBN: 0-618-24973-7

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	____	✔	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: McDougal Littell

INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: McDougal Littell Middle School Math Course 1

COPYRIGHT DATE(S): 2004

SE ISBN: 0-618-08759-1

TE ISBN: 0-618-24973-7

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).					✔		
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).					✔		
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔			
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: McDougal Littell INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: McDougal Littell Middle School Math Course 1 COPYRIGHT DATE(S): 2004

SE ISBN: 0-618-08759-1 TE ISBN: 0-618-24973-7

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	___	___	✔	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	2. read, write, order, and compare all decimals (MA.5.1.2)				___	✔		___	___
_____	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)				___	___		✔	___
_____	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				___	✔		___	___
_____	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)				___	✔		___	___
_____	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)				___	✔		___	___
_____	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				___	✔		___	___
_____	8. add and subtract fractions and mixed numbers (MA.5.1.8)				___	✔		___	___
_____	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)				___	✔		___	___
_____	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)				___	✔		___	___
_____	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				___	✔		___	___
_____	12. solve story problems using multiple strategies (MA.5.1.12)				___	✔		___	___
B. ALGEBRA									
_____	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)				___	✔		___	___
_____	2. use input/output model (MA.5.2.2)				___	✔		___	___
_____	3. write an equation using a variable to solve problems (MA.5.2.3)				___	✔		___	___
_____	4. evaluate an expression given a value for the variable (MA.5.2.4)				___	✔		___	___
C. GEOMETRY									
_____	1. classify and compare polygons (MA.5.3.1)				___	✔		___	___
_____	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)				___	___		✔	___
_____	3. measure angles using a protractor (MA.5.3.3)				___	✔		___	___
_____	4. draw a design with more than one line of symmetry (MA.5.3.4)				___	✔		___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					✔			
_____	6. draw a similar figure using a scale (MA.5.3.6)							✔	
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					✔			
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					✔			
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					✔			
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					✔			
_____	7. calculate elapsed time (MA.5.4.7)					✔			
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					✔			
_____	9. determine actual measurement from scale drawings (MA.5.4.9)					✔			
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)							✔	
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					✔			
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
_____	4. carry out experiments to determine probability (MA.5.5.4)							✔	
_____	5. construct a circle graph (MA.5.5.5)					✔			

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **McDougal Littell**	
INSTRUCTIONAL MATERIALS: **McDougal Littell**	
SUBJECT: **MathThematics Book 1**	
COPYRIGHT DATE(S): **2002**	GRADE: **5th**
SE ISBN: **0-618-09801-1**	TE ISBN: **0-618-09798-8**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: McDougal Littell

INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: MathThematics Book 1

COPYRIGHT DATE(S): 2002

SE ISBN: 0-618-09801-1

TE ISBN: 0-618-09798-8

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

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- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: McDougal Littell

INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: MathThematics Book 1

COPYRIGHT DATE(S): 2002

SE ISBN: 0-618-09801-1

TE ISBN: 0-618-09798-8

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

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- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
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_____	1.				Provide in-depth investigations (discovery activities) and open-ended tasks (applications).	✔			
_____	2.				Provide opportunities for students to engage in mathematical discussion (oral and written).	✔			
_____	3.				Provide opportunities for students to make connections among mathematical topics.	✔			
_____	4.				Provide opportunities for students to make connections between mathematics and its applicability to the world.	✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5.	Offer suggestions/prompts for facilitating classroom discussion and activities.				___	✔	___	___
_____	6.	Provide a variety of methods to help students with a range of abilities or learning styles or interests.				___	✔	___	___
_____	7.	Provide multiple means of assessment which include reasoning/communication skills.				✔	___	___	___
_____	8.	Provide continuous ongoing assessment aligned with learning experiences.				✔	___	___	___

GRADE: 5th

VENDOR: McDougal Littell

INSTRUCTIONAL MATERIALS: McDougal Littell

SUBJECT: MathThematics Book 1

COPYRIGHT DATE(S): 2002

SE ISBN: 0-618-09801-1

TE ISBN: 0-618-09798-8

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)							✔	
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)					✔			
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)					✔			
	8. add and subtract fractions and mixed numbers (MA.5.1.8)					✔			
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)					✔			
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)					✔			
	12. solve story problems using multiple strategies (MA.5.1.12)					✔			
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)							✔	
	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					✔			
_____	6. draw a similar figure using a scale (MA.5.3.6)							✔	
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					✔			
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					✔			
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					✔			
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					✔			
_____	7. calculate elapsed time (MA.5.4.7)					✔			
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)							✔	
_____	9. determine actual measurement from scale drawings (MA.5.4.9)							✔	
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					✔			
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					✔			
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
_____	4. carry out experiments to determine probability (MA.5.5.4)					✔			
_____	5. construct a circle graph (MA.5.5.5)							✔	

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Pearson Scott Foresman**	
INSTRUCTIONAL MATERIALS: **Scott Foresman-Addison Wesley Mathematics**	
SUBJECT: **Scott Foresman-Addison Wesley Mathematics**	
COPYRIGHT DATE(S): **2005**	GRADE: **5th**
SE ISBN: **0-328-11709-9**	TE ISBN: **0-328-10208-3 Vol 1, 0-328-10209-1 Vol 2 0-328-10210-5 Vol 3, 0-328-10211-3 Vol 4**

R-E-S-P-O-N-S-E-S			*CRITERIA*	*NOTES*
YES	*NO*	*N/A*		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Scott Foresman-Addison Wesley Mathematics

SUBJECT: Scott Foresman-Addison Wesley Mathematics

COPYRIGHT DATE(S): 2005

SE ISBN: 0-328-11709-9

TE ISBN: 0-328-10208-3/10209-1/10210-5/10211-3

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.					____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.					____	✔	____	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.					✔	____	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Scott Foresman-Addison Wesley Mathematics

SUBJECT: Scott Foresman-Addison Wesley Mathematics

COPYRIGHT DATE(S): 2005

SE ISBN: 0-328-11709-9

TE ISBN: 0-328-10208-3/10209-1/10210-5/10211-3

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				___	✔	___	___
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				___	✔	___	___
_____	3.	Provide opportunities for students to make connections among mathematical topics.				___	✔	___	___
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Scott Foresman-Addison Wesley Mathematics

SUBJECT: Scott Foresman-Addison Wesley Mathematics

COPYRIGHT DATE(S): 2005

SE ISBN: 0-328-11709-9

TE ISBN: 0-328-10208-3/10209-1/10210-5/10211-3

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				✔				
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)				✔				
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				✔				
	8. add and subtract fractions and mixed numbers (MA.5.1.8)				✔				
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)							✔	
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				✔				
	12. solve story problems using multiple strategies (MA.5.1.12)				✔				
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)				✔				
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)						✔		
	6. draw a similar figure using a scale (MA.5.3.6)						✔		
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)						✔		
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)						✔		
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)						✔		
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)						✔		
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)						✔		
	7. calculate elapsed time (MA.5.4.7)						✔		
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)						✔		
	9. determine actual measurement from scale drawings (MA.5.4.9)						✔		
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)						✔		
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)						✔		
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
	4. carry out experiments to determine probability (MA.5.5.4)						✔		
	5. construct a circle graph (MA.5.5.5)						✔		

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Pearson Scott Foresman**	
INSTRUCTIONAL MATERIALS: **Investigations in Number, Data, and Space**	
SUBJECT: **Investigations in Number, Data, and Space**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **0-201-37797-7**	TE ISBN: **0-201-37803-5**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Investigations in Number, Data, and Space

SUBJECT: Investigations in Number, Data, and Space

COPYRIGHT DATE(S): 2004

SE ISBN: 0-201-37797-7

TE ISBN: 0-201-37803-5

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____		
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____		
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					✔	___	___	___

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Investigations in Number, Data, and Space

SUBJECT: Investigations in Number, Data, and Space

COPYRIGHT DATE(S): 2004

SE ISBN: 0-201-37797-7

TE ISBN: 0-201-37803-5

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

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- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				✔			
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				✔			
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔			
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					✔	___	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					✔	___	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					✔	___	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					✔	___	___	___

GRADE: 5th

VENDOR: Pearson Scott Foresman

INSTRUCTIONAL MATERIALS: Investigations in Number, Data, and Space

SUBJECT: Investigations in Number, Data, and Space

COPYRIGHT DATE(S): 2004

SE ISBN: 0-201-37797-7

TE ISBN: 0-201-37803-5

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)	___	✔	___	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)								✔
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				✔				
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)					✔			
	8. add and subtract fractions and mixed numbers (MA.5.1.8)					✔			
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)					✔			
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)							✔	
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)					✔			
	12. solve story problems using multiple strategies (MA.5.1.12)				✔				
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)				✔				
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
	4. evaluate an expression given a value for the variable (MA.5.2.4)					✔			
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)						✔		
	6. draw a similar figure using a scale (MA.5.3.6)						✔		
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)						✔		
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)						✔		
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)						✔		
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)						✔		
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)						✔		
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)						✔		
	7. calculate elapsed time (MA.5.4.7)						✔		
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)						✔		
	9. determine actual measurement from scale drawings (MA.5.4.9)							✔	
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)							✔	
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)						✔		
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)						✔		
	4. carry out experiments to determine probability (MA.5.5.4)						✔		
	5. construct a circle graph (MA.5.5.5)						✔		

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Saxon Publishers**	
INSTRUCTIONAL MATERIALS: **Saxon Math 6/5**	
SUBJECT: **Saxon Math 6/5 Student Edition**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **1-56577-505-8 (Not verified)**	TE ISBN: **1-59141-247-1 Vol 1, 1-59141-248-X Vol 2**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Saxon Publishers

INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition

COPYRIGHT DATE(S): 2004

SE ISBN: 1-56577-505-8

TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.		✔			
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.			✔		
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.		✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Saxon Publishers

INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition

COPYRIGHT DATE(S): 2004

SE ISBN: 1-56577-505-8

TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				____	✔	____	____
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				____	✔	____	____
_____	3.	Provide opportunities for students to make connections among mathematical topics.				____	____	✔	____
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: Saxon Publishers INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition COPYRIGHT DATE(S): 2004

SE ISBN: 1-56577-505-8 TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	2. read, write, order, and compare all decimals (MA.5.1.2)				___	✔		___	___
_____	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)				___	✔		___	___
_____	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				___	✔		___	___
_____	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)				___	✔		___	___
_____	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)				___	✔		___	___
_____	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				___	✔		___	___
_____	8. add and subtract fractions and mixed numbers (MA.5.1.8)				___	✔		___	___
_____	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)				___	✔		___	___
_____	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)				___	✔		___	___
_____	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				___	✔		___	___
_____	12. solve story problems using multiple strategies (MA.5.1.12)				___	✔		___	___
B. ALGEBRA									
_____	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)				___			✔	___
_____	2. use input/output model (MA.5.2.2)				___	✔		___	___
_____	3. write an equation using a variable to solve problems (MA.5.2.3)				___			✔	___
_____	4. evaluate an expression given a value for the variable (MA.5.2.4)				___	✔		___	___
C. GEOMETRY									
_____	1. classify and compare polygons (MA.5.3.1)				___	✔		___	___
_____	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)				___			✔	___
_____	3. measure angles using a protractor (MA.5.3.3)				___	✔		___	___
_____	4. draw a design with more than one line of symmetry (MA.5.3.4)				___			✔	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					___	___	✔	___
_____	6. draw a similar figure using a scale (MA.5.3.6)					___	___	✔	___
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					___	✔	___	___
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					___	✔	___	___
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					___	✔	___	___
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					___	✔	___	___
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					___	___	✔	___
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					___	___	✔	___
_____	7. calculate elapsed time (MA.5.4.7)					___	✔	___	___
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					___	✔	___	___
_____	9. determine actual measurement from scale drawings (MA.5.4.9)					___	___	✔	___
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					___	___	✔	___
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					___	___	✔	___
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					___	✔	___	___
_____	4. carry out experiments to determine probability (MA.5.5.4)					___	___	✔	___
_____	5. construct a circle graph (MA.5.5.5)					___	___	✔	___

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Saxon Publishers**	
INSTRUCTIONAL MATERIALS: **Saxon Math 6/5**	
SUBJECT: **Saxon Math 6/5 Student Edition**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **1-56577-505-8 (Not verified)**	TE ISBN: **1-59141-247-1 Vol 1, 1-59141-248-X Vol 2**

R-E-S-P-O-N-S-E-S			*CRITERIA*	*NOTES*
YES	*NO*	*N/A*		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Saxon Publishers

INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition

COPYRIGHT DATE(S): 2004

SE ISBN: 1-56577-505-8

TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	____	✔	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Saxon Publishers

INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition

COPYRIGHT DATE(S): 2004

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TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

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- **Category III: Mathematics Content**

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- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).					✔		
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).					✔		
_____	3.	Provide opportunities for students to make connections among mathematical topics.						✔	
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.					✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					___	✔	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					___	✔	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					___	✔	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					___	✔	___	___

GRADE: 5th

VENDOR: Saxon Publishers INSTRUCTIONAL MATERIALS: Saxon Math 6/5

SUBJECT: Saxon Math 6/5 Student Edition COPYRIGHT DATE(S): 2004

SE ISBN: 1-56577-505-8 TE ISBN: 1-59141-247-1 Vol 1, 1-59141-248-X Vol 2

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	2. read, write, order, and compare all decimals (MA.5.1.2)				___	✔		___	___
_____	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)				___	✔		___	___
_____	4. estimate with whole numbers and decimals, including money (MA.5.1.4)				___	✔		___	___
_____	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)				___	✔		___	___
_____	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)				___	✔		___	___
_____	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				___	✔		___	___
_____	8. add and subtract fractions and mixed numbers (MA.5.1.8)				___	✔		___	___
_____	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)				___	✔		___	___
_____	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)				___	✔		___	___
_____	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				___	✔		___	___
_____	12. solve story problems using multiple strategies (MA.5.1.12)				___	✔		___	___
B. ALGEBRA									
_____	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)				___			✔	___
_____	2. use input/output model (MA.5.2.2)				___	✔		___	___
_____	3. write an equation using a variable to solve problems (MA.5.2.3)				___			✔	___
_____	4. evaluate an expression given a value for the variable (MA.5.2.4)				___	✔		___	___
C. GEOMETRY									
_____	1. classify and compare polygons (MA.5.3.1)				___	✔		___	___
_____	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)				___			✔	___
_____	3. measure angles using a protractor (MA.5.3.3)				___	✔		___	___
_____	4. draw a design with more than one line of symmetry (MA.5.3.4)				___			✔	___

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					___	___	✔	___
_____	6. draw a similar figure using a scale (MA.5.3.6)					___	___	✔	___
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					___	✔	___	___
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					___	✔	___	___
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					___	✔	___	___
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					___	✔	___	___
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					___	___	✔	___
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					___	___	✔	___
_____	7. calculate elapsed time (MA.5.4.7)					___	✔	___	___
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					___	✔	___	___
_____	9. determine actual measurement from scale drawings (MA.5.4.9)					___	___	✔	___
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					___	___	✔	___
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					___	___	✔	___
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					___	✔	___	___
_____	4. carry out experiments to determine probability (MA.5.5.4)					___	___	✔	___
_____	5. construct a circle graph (MA.5.5.5)					___	___	✔	___

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Wright Group/McGraw-Hill**	
INSTRUCTIONAL MATERIALS: **Mathematics**	
SUBJECT: **Growing With Mathematics**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: **0-322-0952-0-4/1-4045-1994-7**	TE ISBN: **1-40451966-1 Teacher File Box**

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill

INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Growing With Mathematics Discussion Book Student (single copy)

COPYRIGHT DATE(S): 2004

SE ISBN: 0-322-0952-0-4/1-4045-1994-7

TE ISBN: 1-40451966-1

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill

INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Growing With Mathematics Discussion Book Student (single copy)

COPYRIGHT DATE(S): 2004

SE ISBN: 0-322-0952-0-4/1-4045-1994-7

TE ISBN: 1-40451966-1 Teacher File Box

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				✔			
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				✔			
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔			
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					✔	___	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					✔	___	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					✔	___	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					✔	___	___	___

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Growing With Mathematics
Discussion Book Student (single copy) COPYRIGHT DATE(S): 2004

SE ISBN: 0-322-0952-0-4/1-4045-1994-7 TE ISBN: 1-40451966-1

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)					✔			
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)					✔			
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)					✔			
	8. add and subtract fractions and mixed numbers (MA.5.1.8)					✔			
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)							✔	
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)					✔			
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)					✔			
	12. solve story problems using multiple strategies (MA.5.1.12)					✔			
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)							✔	
	3. write an equation using a variable to solve problems (MA.5.2.3)								✔
	4. evaluate an expression given a value for the variable (MA.5.2.4)								✔
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)					✔			
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)					✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					✔			
	6. draw a similar figure using a scale (MA.5.3.6)					✔			
D. MEASUREMENT									
	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					✔			
	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					✔			
	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					✔			
	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					✔			
	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					✔			
	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					✔			
	7. calculate elapsed time (MA.5.4.7)					✔			
	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)							✔	
	9. determine actual measurement from scale drawings (MA.5.4.9)							✔	
E. DATA ANALYSIS AND PROBABILITY									
	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					✔			
	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)							✔	
	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					✔			
	4. carry out experiments to determine probability (MA.5.5.4)					✔			
	5. construct a circle graph (MA.5.5.5)					✔			

INSTRUCTIONAL MATERIALS ADOPTION
GENERIC EVALUATION CRITERIA
2005 TO 2011
Mathematics

VENDOR: **Wright Group/McGraw-Hill**	
INSTRUCTIONAL MATERIALS: **Mathematics**	
SUBJECT: **Everyday Mathematics**	
COPYRIGHT DATE(S): **2004**	GRADE: **5th**
SE ISBN: 0-076-000-35-4 Vol. 1, 0-07-6000-36-2 Vol. 2	TE ISBN: 0-76-000-38-9 Vol. 1/0-07-6000-39-7 Vol. 2

R-E-S-P-O-N-S-E-S			***CRITERIA***	***NOTES***
YES	***NO***	***N/A***		
			I. INTER-ETHNIC	
✔			The instructional materials meet the requirements of inter-ethnic: concept, content, and illustration, 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).	

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill

INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Everyday Mathematics

COPYRIGHT DATE(S): 2004

Set

SE ISBN: 0-076-000-35-4 Vol. 1

TE ISBN: 0-76-00038-9/0-07-6000-39-7

COMMENTS: _____

MATHEMATICS
INSTRUCTIONAL MATERIALS FOR TECHNOLOGY AND MANIPULATIVES

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

_____	1. Specific activities utilizing appropriate software to develop, explore, and expand the objectives.	____	✔	____	____
_____	2. Specific activities utilizing appropriate calculators to develop, explore, and expand the objectives.	____	✔	____	____
_____	3. References to or integration of audio/visual materials that develop, explore, and expand the objectives.	____	✔	____	____

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	4. References to or integration of Internet resources that develop, explore, and expand the objectives.					___	✔	___	___
_____	5. Specific ideas and activities utilizing manipulatives to develop, explore, and expand the objectives.					___	✔	___	___

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Everyday Mathematics COPYRIGHT DATE(S): 2004

SE ISBN: 0-076-000-35-4 Vol. 1 TE ISBN: 0-76-00038-9/0-07-6000-39-7

COMMENTS: _____

MATHEMATICS
SCIENTIFIC BASED RESEARCH COMPONENTS

The objectives continue the emphasis on the use of manipulatives, concrete material, and appropriate technologies to give students the foundation needed to explore new mathematical concepts. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
All materials at this grade level (1) are research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to									
_____	1.	Provide in-depth investigations (discovery activities) and open-ended tasks (applications).				✔			
_____	2.	Provide opportunities for students to engage in mathematical discussion (oral and written).				✔			
_____	3.	Provide opportunities for students to make connections among mathematical topics.				✔			
_____	4.	Provide opportunities for students to make connections between mathematics and its applicability to the world.				✔			

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. Offer suggestions/prompts for facilitating classroom discussion and activities.					✔	___	___	___
_____	6. Provide a variety of methods to help students with a range of abilities or learning styles or interests.					✔	___	___	___
_____	7. Provide multiple means of assessment which include reasoning/communication skills.					✔	___	___	___
_____	8. Provide continuous ongoing assessment aligned with learning experiences.					✔	___	___	___

GRADE: 5th

VENDOR: Wright Group/McGraw-Hill INSTRUCTIONAL MATERIALS: Mathematics

SUBJECT: Everyday Mathematics COPYRIGHT DATE(S): 2004

SE ISBN: 0-076-000-35-4 Vol. 1 TE ISBN: 0-76-00038-9/0-07-6000-39-7

COMMENTS: _____

MATHEMATICS
SPECIFIC CRITERIA FOR CONTENT AND SKILLS
FIFTH GRADE

Building on mastery of the basic facts of addition, subtraction, multiplication, and division, the fifth grade objectives place emphasis on developing proficiency in using whole numbers, fractions, and decimals to solve problems. Students will collect, display and analyze data in a variety of ways and solve probability problems. Students will solve problems involving area and perimeter, will classify polygons, plot points on a coordinate plane, and write a number sentence using a variable to solve problems. Students should be actively engaged, continuing to use concrete materials and appropriate technologies such as calculators and computers. Problem solving should be integrated throughout all the strands. The development of a variety of problem-solving strategies should be a major goal of mathematics at this grade level. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students' learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (7/8) of the criteria at "In-depth" and/or "Adequate."**
- **Category II: Technology and Manipulatives must also meet 80% (4/5) of the criteria at "In-depth" and/or "Adequate."**
- **Category III: Mathematics Content must meet 80% of the criteria at "In-depth" and/or "Adequate" for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-depth	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**

All materials at this grade level must (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

A. NUMBER AND OPERATIONS

_____	1. read, write, order, and compare all whole numbers (MA.5.1.1)		✔		

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
	2. read, write, order, and compare all decimals (MA.5.1.2)				✔				
	3. identify place value of each digit utilizing standard and expanded form in any whole number (MA.5.1.3)					✔			
	4. estimate with whole numbers and decimals, including money (MA.5.1.4)					✔			
	5. identify and use the divisibility rules of 2, 3, 5, 9, and 10 (MA.5.1.5)					✔			
	6. compare and order fractions, improper fractions, and mixed numbers with like and unlike denominators (e.g., greatest common factor, lowest common multiple) (MA.5.1.6)					✔			
	7. model and write equivalencies of fractions, decimals, percents, and ratios (MA.5.1.7)				✔				
	8. add and subtract fractions and mixed numbers (MA.5.1.8)				✔				
	9. model multiplication and division of fractions to solve the algorithm (MA.5.1.9)				✔				
	10. model multiplication of decimals and division of decimals by a whole number divisor (MA.5.1.10)					✔			
	11. develop fluency in addition, subtraction, multiplication, and division of whole numbers (MA.5.1.11)				✔				
	12. solve story problems using multiple strategies (MA.5.1.12)					✔			
B. ALGEBRA									
	1. explore a variety of patterns with missing elements (e.g., square numbers, powers, triangular numbers, arithmetic sequences) (MA.5.2.1)					✔			
	2. use input/output model (MA.5.2.2)					✔			
	3. write an equation using a variable to solve problems (MA.5.2.3)					✔			
	4. evaluate an expression given a value for the variable (MA.5.2.4)				✔				
C. GEOMETRY									
	1. classify and compare polygons (MA.5.3.1)					✔			
	2. construct a 3-dimensional figure from different views (orthogonal drawings) (MA.5.3.2)							✔	
	3. measure angles using a protractor (MA.5.3.3)					✔			
	4. draw a design with more than one line of symmetry (MA.5.3.4)							✔	

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	*(IMR Committee) Responses*								
	I = In-dept	*A = Adequate*	*M = Minimal*	*N = Nonexistent*		**I**	**A**	**M**	**N**
_____	5. identify the images of figures after reflections, translations and rotations (MA.5.3.5)					___	___	✔	___
_____	6. draw a similar figure using a scale (MA.5.3.6)					___	___	✔	___
D. MEASUREMENT									
_____	1. estimate, measure, compare, order, and draw lengths of real objects in parts of an inch up to 1/8 of an inch and millimeters (MA.5.4.1)					___	✔	___	___
_____	2. use appropriate formulas to determine and compare area of triangles and parallelograms (MA.5.4.2)					___	✔	___	___
_____	3. use a formula to determine the volume of a rectangular prism (MA.5.4.3)					___	✔	___	___
_____	4. identify the relationship between the area and perimeter of a plane figure (MA.5.4.4)					___	✔	___	___
_____	5. use conversions within a system of measure and apply to problem solving situations (MA.5.4.5)					___	✔	___	___
_____	6. evaluate and/or measure the weight/mass of real objects in ounces, pounds, tons, grams, and kilograms (MA.5.4.6)					___	___	✔	___
_____	7. calculate elapsed time (MA.5.4.7)					___	✔	___	___
_____	8. select appropriate customary and metric units and the tools for measuring to desired degree of precision (MA.5.4.8)					___	✔	___	___
_____	9. determine actual measurement from scale drawings (MA.5.4.9)					___	✔	___	___
E. DATA ANALYSIS AND PROBABILITY									
_____	1. collect, organize, display, read, and interpret data from a problem-solving situation in a stem and leaf plot (MA.5.5.1)					___	✔	___	___
_____	2. determine probability and solve problems involving the probability of an event by using tree diagrams or by construction of a sample space (MA.5.5.2)					___	✔	___	___
_____	3. construct, read, and interpret tables, charts, and graphs to draw reasonable inferences or verify predictions (MA.5.5.3)					___	✔	___	___
_____	4. carry out experiments to determine probability (MA.5.5.4)					___	✔	___	___
_____	5. construct a circle graph (MA.5.5.5)					___	✔	___	___