

PUBLISHER:			
SUBJECT:		SPECIFIC GRADE:	
COURSE:		TITLE	
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SE ISBN:		TE ISBN:	

NON-NEGOTIABLE EVALUATION CRITERIA

**2018-2024
Group VI – Mathematics
Grade 2**

Equity, Accessibility and Format			
Yes	No	CRITERIA	NOTES
		1. INTER-ETHNIC The instructional materials meets the requirements of inter-ethnic: concepts, content and illustrations, as set by WV Board of Education Policy 2445.41.	
		2. EQUAL OPPORTUNITY The instructional material meets the requirements of equal opportunity: concepts, content, illustration, heritage, roles contributions, experiences and achievements of males and females in American and other cultures.	
		3. FORMAT This resource includes an interactive electronic/digital component for students.	
		4. BIAS The instructional material is free of political bias.	
		5. COMMON CORE The instructional materials do not reference Common Core academic standards. (WV Code §18-2E-1b-1).	

GENERAL EVALUATION CRITERIA

2018-2024
Group VI – Mathematics
Grade 2

The general evaluation criteria apply to each grade level and are to be evaluated for each grade level unless otherwise specified. These criteria consist of information critical to the development of all grade levels. In reading the general evaluation criteria and subsequent specific grade level criteria, **e.g. means “examples of” and i.e. means that “each of” those items must be addressed.** Eighty percent of the general and eighty percent of the specific criteria must be met with I (in-depth) or A (adequate) in order to be recommended.

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCTS	(IMR Committee) Responses				
	I=In-depth, A=Adequate, M=Minimal, N=Nonexistent	I	A	M	N
	<i>In addition to alignment of Content Standards, materials must also clearly connect to Learning for the 21st Century which includes opportunities for students to develop:</i>				
Use Problem Solving Skills					
<i>For student mastery of content standards, the instructional materials will include multiple strategies that provide students with opportunities to:</i>					
	1. Make sense of problems and persevere in solving them;				
	2. attend to precision;				
	3. deepen understanding through meaningful and challenging teacher and/or student directed inquiry-based learning that builds number sense using prior knowledge and promotes interdisciplinary connections;				
	4. reason abstractly and quantitatively;				
	5. construct viable arguments and critique the reasoning of others				
	6. make informed choices by interacting with outside resources through opportunities for local and global collaboration in a variety of safe venues				
	7. model with mathematics;				

	8. use appropriate tools strategically;						
	9. use appropriate technology tools for a variety of purposes						
	10. look for and make use of structure						
	11. look for and express regularity in repeated reasoning.						
Personal and Workplace Productivity Skills							
<i>For student mastery of content standards, the instructional materials will include multiple strategies that provide students with opportunities to:</i>							
	12. work collaboratively;						
	13. practice time-management and project management skills in problem-based learning situations.						
Developmentally Appropriate Instructional Resources and Strategies							
<i>For student mastery of content standards, the instructional materials:</i>							
	14. are designed to devote the large majority of time to the critical areas of the grade as noted in the narrative written above the grade level standards;						
	15. include suggestions for appropriate scaffolding and provide opportunities to engage in high interest, age-appropriate activities that simulate real-life situations, and make cross-curricular, global connections;						
	16. provide students with opportunities to use print, graphs, visual displays, developmentally appropriate manipulatives, media and technology sources to acquire and apply new information;						
	17. include best practices that emphasize the importance of authentic vocabulary acquisition using multiple methods and modes that motivate and increase vocabulary skills;						
	18. support personalized learning through intervention and enrichment activities;						
	19. provide a dynamic, interactive website for students to access electronic resources (i.e., podcasts, videos, skill-based games, etc.). The media						

	included in the instructional materials must enhance and support instruction and learning;					
	20. include a professional resource that builds content and pedagogical knowledge for the teacher.					
Assessment						
	21. Instructional materials provide tools for a balanced approach to assessment including diagnostic, formative and summative assessments in multiple formats (i.e., rubrics, performance tasks, open-ended questions, portfolio evaluation, and multimedia simulations).					
Organization, Presentation and Format						
	22. Information is organized logically and presented clearly using multiple methods and modes for delivering differentiated instruction that motivates and increases numeracy as students engage in high interest, authentic activities.					
	23. The instructional materials include a digital file of the student and teacher edition, accessible via the internet or an electronic storage device (e.g., CD, DVD, USB drive, etc.).					
	24. The materials engage parents in appropriate ways. For example, homework assignments in elementary grades consists of routine problems, practice with getting answers and fluency-building exercises that parents can easily support.					

SPECIFIC EVALUATION CRITERIA

2018-2024 Group VI – Mathematics Grade 2

All West Virginia teachers are responsible for classroom instruction that integrates content standards and mathematical habits of mind. Students in the second grade will focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes. Mathematical habits of mind, which should be integrated in these content areas, include: making sense of problems and persevering in solving them, reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others; modeling with mathematics; using appropriate tools strategically; attending to precision, looking for and making use of structure; and looking for and expressing regularity in repeated reasoning. Continuing the skill progressions from first grade, the following chart represents the mathematical understandings that will be developed in second grade:

<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> • Solve challenging addition and subtraction word problems with one or two steps (e.g., a “one-step” problem would be: “Lucy has 23 fewer apples than Julie. Julie has 47 apples. How many apples does Lucy have?”). • Fluently add with a sum of 20 or less (e.g., $11 + 8$); fluently subtract from a number 20 or less (e.g., $16 - 9$); and know all sums of one-digit numbers from memory by the end of the year. • Work with equal groups of objects to gain foundations for multiplication. 	<p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> • Understand what the digits mean in three-digit numbers (place value). • Use an understanding of place value to add and subtract three-digit numbers (e.g., $811 - 367$); add and subtract two-digit numbers fluently (e.g., $77 - 28$).
<p>Measurement and Data</p> <ul style="list-style-type: none"> • Solve addition and subtraction word problems involving length (e.g., “The pen is 2 cm longer than the pencil. If the pencil is 7 cm long, how long is the pen?”). • Tell time. • Count money. 	<p>Geometry</p> <ul style="list-style-type: none"> • Build, draw, and analyze 2-D and 3-D shapes to develop foundations for area, volume, and geometry in later grades. • Divide shapes into equal shares to build the foundations for fractions in later grades.

For student mastery of content standards, the instructional materials will provide students with the opportunity to

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Operations and Algebraic Thinking					
Represent and solve problems involving addition and subtraction.					
	1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together,				

	taking apart, and comparing, with unknowns in all positions (e.g. by using drawings and equations with a symbol for the unknown number to represent the problem).					
Add and subtract within 20.						
	2. Fluently add and subtract within 20 using mental strategies and by end of Grade 2, know from memory all sums of two one-digit numbers.					
Work with equal groups of objects to gain foundations for multiplication.						
	3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g. by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.					
	4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.					
Number and Operations in Base Ten						
Understand place value.						
	5. Understand that the three digits of a three-digit number represent amounts of hundreds, tens and ones (e.g., 706 equals 7 hundreds, 0 tens and 6 ones). Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens – called a “hundred.” b. Numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight or nine hundreds, and 0 tens and 0 ones.					
	6. Count within 1000 and skip-count by 5s, 10s and 100s.					
	7. Read and write numbers to 1000 using base-ten numerals, number names and expanded form.					
	8. Compare two three-digit numbers based on meanings of the hundreds, tens and ones digits, using $>$, $=$ and $<$ symbols to record the results of comparisons.					
Use place value understanding and properties of operations to add and subtract.						

	9. Fluently add and subtract within 100 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction.						
	10. Add up to four two-digit numbers using strategies based on place value and properties of operations.						
	11. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones and sometimes it is necessary to compose or decompose tens or hundreds.						
	12. Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900.						
	13. Explain why addition and subtraction strategies work, using place value and the properties of operations. Instructional Note: Explanations may be supported by drawing or objects.						
Measurement and Data							
Measure and estimate lengths in standard units.							
	14. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.						
	15. Measure the length of an object twice, using length units of different lengths for the two measurements, describe how the two measurements relate to the size of the unit chosen.						
	16. Estimate lengths using units of inches, feet, centimeters, and meters.						
	17. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.						
Relate addition and subtraction to length.							

	18. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units (e.g., by using drawings, such as drawings of rulers), and equations with a symbol for the unknown number to represent the problem.						
	19. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2... and represent whole-number sums and differences within 100 on a number line diagram.						
Work with time and money.							
	20. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.						
	21. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately (e.g., If you have 2 dimes and 3 pennies, how many cents do you have?).						
Represent and interpret data.							
	22. Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.						
	23. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.						
Geometry							
Reason with shapes and their attributes.							
	24. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces (sizes are compared directly or visually, not compared by measuring). Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.						
	25. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.						

26. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

