| PUBLISHER: |                 |
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# NON-NEGOTIABLE EVALUATION CRITERIA

## 2018-2024 Group VI – Mathematics Kindergarten

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

### **GENERAL EVALUATION CRITERIA**

#### 2018-2024 Group VI – Mathematics Kindergarten

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)                     | (IMR Committee) Responses  |          |       |          |                     |       |   |   |
|--|--|----------|-------|----------|---------------------|-------|---|---|
| WITHIN PRODUCTS                        |  |          |       |          |                     |       |   |   |
|  | I=In-depth, A=Adequate, M=Minimal, N=Nonexistent   | I        |       | Α        | N                   | N     |   | Ν |
|  | In addition to alignment of Content Standards, materials must also clearly connect t   | o Learn  | ning  | for the  | 21 <sup>st</sup> Ce | entur | y |   |
|  | which includes opportunities for students to develop:  |          |       |          |                     |       |   |   |
| Use Problem Solving Skills             |  |          |       |          |                     |       |   |   |
| For student mastery of content standar | ds, the instructional materials will include multiple strategies that provide students wit   | h oppor  | tuni  | ties to: |                     |       |   |   |
|  | 1. Make sense of problems and persevere in solving them;   |          |       |          |                     |       |   |   |
|  | 2. attend to precision;  |          |       |          |                     |       |   |   |
|  | 3. deepen understanding through meaningful and challenging teacher   |          |       |          |                     |       |   |   |
|  | using prior knowledge and promotes interdisciplinary connections;  |          |       |          |                     |       |   |   |
|  | 4. reason abstractly and quantitatively;   |          |       |          |                     |       |   |   |
|  | 5. construct viable arguments and critique the reasoning of others   |          |       |          |                     |       |   |   |
|  | <ol><li>make informed choices by interacting with outside resources through<br/>opportunities for local and global collaboration in a variety of safe venues</li></ol> |          |       |          |                     |       |   |   |
|  | 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   |          |       |          |                     |       |   |   |
| For student mastery of content standar | ds, the instructional materials will include multiple strategies that provide students wit   | h oppor  | tunii | ties to: |                     |       |   |   |
|  | 12. work collaboratively;  | <b> </b> |       |          |                     |       |   |   |
|  | <ol> <li>practice time-management and project management skills in problem-<br/>based learning situations.</li> </ol>  |          |       |          |                     |       |   |   |

| Developmentally Appropriate Instructional F     | Resources and Strategies   |      |      |  |
|---|--|------|------|--|
| For student mastery of content standards, the i | nstructional materials:  | <br> | <br> |  |
| 14  | <ul> <li>are designed to devote the large majority of time to the critical areas of<br/>the grade as noted in the narrative written above the grade level<br/>standards;</li> </ul>  |      |      |  |
| 15  | <ul> <li>include suggestions for appropriate scaffolding and provide opportunities<br/>to engage in high interest, age-appropriate activities that simulate real-life<br/>situations, and make cross-curricular, global connections;</li> </ul>                                  |      |      |  |
| 16  | <ul> <li>provide students with opportunities to use print, graphs, visual displays,<br/>developmentally appropriate manipulatives, media and technology<br/>sources to acquire and apply new information;</li> </ul>   |      |      |  |
| 17  | <ul> <li>include best practices that emphasize the importance of authentic<br/>vocabulary acquisition using multiple methods and modes that motivate<br/>and increase vocabulary skills;</li> </ul>  |      |      |  |
| 18  | <ul> <li>support personalized learning through intervention and enrichment<br/>activities;</li> </ul>  |      |      |  |
| 19  | <ul> <li>provide a dynamic, interactive website for students to access electronic<br/>resources (i.e., podcasts, videos, skill-based games, etc.). The media<br/>included in the instructional materials must enhance and support<br/>instruction and learning;</li> </ul>       |      |      |  |
| 20  | <ul> <li>include a professional resource that builds content and pedagogical<br/>knowledge for the teacher.</li> </ul>   |      |      |  |
| Assessment                                      |  |      |      |  |
| 21  | . Instructional materials provide tools for a balanced approach to<br>assessment including diagnostic, formative and summative assessments<br>in multiple formats (i.e., rubrics, performance tasks, open-ended<br>questions, portfolio evaluation, and multimedia simulations). |      |      |  |
| Organization, Presentation and Format           |  |      |      |  |
| 22  | Information is organized logically and presented clearly using multiple<br>methods and modes for delivering differentiated instruction that motivates<br>and increases numeracy as students engage in high interest, authentic<br>activities.                                    |      |      |  |
| 23  | b. The instructional materials include a digital file of the student and teacher<br>edition, accessible via the internet or an electronic storage device (e.g.<br>USB drive, CD, DVD, etc.).   |      |      |  |
| 24  | . The materials engage parents in appropriate ways. For example,<br>homework assignments in elementary grades consists of routine<br>problems, practice with getting answers and fluency-building exercises<br>that parents can easily support.                                  |      |      |  |

## **SPECIFIC EVALUATION CRITERIA**

#### 2018-2024 Group VI – Mathematics Kindergarten

All West Virginia teachers are responsible for classroom instruction that integrates content standards and mathematical habits of mind. Students in kindergarten will focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. 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. The skill progressions begin in kindergarten as foundational understanding of numeracy. The following chart represents the mathematical understandings that will be developed in kindergarten:

| Counting and Cardinality   | Operations and Algebraic Thinking   |
|--|---|
| <ul> <li>Count objects to tell how many there are by ones and by tens.</li> <li>Write numbers from 0 to 20.</li> <li>Compare two groups of objects to tell which group, if either, has more; compare two written numbers to tell which is greater.</li> <li>Group pennies.</li> </ul>                            | <ul> <li>Understand addition as putting together and adding to.</li> <li>Understand subtraction as taking apart and taking from.</li> <li>Add and subtract very small numbers quickly and accurately (e.g., 3 + 1).</li> </ul>        |
| Number and Operations in Base Ten  | Measurement and Data  |
| <ul> <li>Act out addition and subtraction word problems and draw diagrams to represent them.</li> <li>Add with a sum of 10 or less; subtract from a number 10 or less; and solve addition and subtraction word problems.</li> <li>Group objects by tens and ones. (1 group of 10 and 3 ones makes 13)</li> </ul> | <ul> <li>Describe and compare objects as longer, shorter, larger, smaller, etc.</li> <li>Classify objects and count the number of objects in each category. (e.g., Identify coins and sort them into groups of 5s or 10s.)</li> </ul> |
| Geometry   |   |
| <ul> <li>Name shapes correctly regardless of orientation or size (e.g., a square<br/>oriented as a "diamond" is still a square).</li> </ul>  |   |

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

| (Vendor/Publisher)<br>SPECIFIC LOCATION OF<br>CONTENT WITHIN PRODUCTS | (IMR Committee) Responses                        |  |   |   |   |
|---|--|--|---|---|---|
|   | I=In-depth, A=Adequate, M=Minimal, N=Nonexistent |  | Α | Μ | Ν |
| Counting and Cardinality  |  |  |   |   |   |
| Know number names and the count sec                                   | quence.  |  |   |   |   |
|   | 1. Count to 100 by ones and by tens.             |  |   |   |   |

|   | <ol><li>Count forward beginning from a given number within the known<br/>sequence (instead of having to begin at 1).</li></ol>  |  |   |  |  |
|---|---|--|---|--|--|
|   | 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).   |  |   |  |  |
| Count to tell the number of objects.    |   |  |   |  |  |
|   | <ul> <li>4. Understand the relationship between numbers and quantities; connect counting to cardinality.</li> <li>a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.</li> <li>b. Understand that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.</li> <li>c. Understand that each successive number name refers to a quantity that is one larger.</li> </ul> |  |   |  |  |
|   | <ol> <li>Count to answer questions (e.g., "How many?") about as many as 20<br/>things arranged in a line, a rectangular array, a circle, or as many as 10<br/>things in a scattered configuration; given a number from 1–20, count out<br/>that many objects.</li> </ol>  |  |   |  |  |
| Compare numbers.                        |   |  |   |  |  |
|   | <ol> <li>Identify whether the number of objects in one group is greater than, less<br/>than, or equal to the number of objects in another group (e.g., by using<br/>matching and counting strategies).</li> </ol>   |  |   |  |  |
|   | 7. Compare two numbers between 1 and 10 presented as written numerals.  |  |   |  |  |
| Operations and Algebraic Thin           | ting  |  | 1 |  |  |
| Understand addition as putting together | and adding to, and understand subtraction as taking apart and taking from.  |  |   |  |  |
|   | <ol> <li>Represent addition and subtraction with objects, fingers, mental images,<br/>drawings, sounds (e.g., claps), and acting out situations, verbal<br/>explanations, expressions, or equations.</li> </ol>   |  |   |  |  |

|  | <ol> <li>Solve addition and subtraction word problems and add and subtract<br/>within 10 by using objects or drawings to represent the problem.</li> </ol>  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
|  | 10. Decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$ ).   |  |  |  |  |  |  |  |
|  | 11. For any number from 1 to 9, find the number that makes 10 when added to the given number by using objects or drawings, and record the answer with a drawing or equation.  |  |  |  |  |  |  |  |
|  | 12. Fluently add and subtract within 5.   |  |  |  |  |  |  |  |
| Number and Operations in Bas                                 | Number and Operations in Base Ten   |  |  |  |  |  |  |  |
| Work with numbers 11-19 to gain foundations for place value. |   |  |  |  |  |  |  |  |
|  | <ul> <li>13. Compose and decompose numbers from 11 to 19 into ten ones and some further ones by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones (one ten) and one, two, three, four, five, six, seven, eight, or nine ones.</li> </ul> |  |  |  |  |  |  |  |
| Measurement and Data   |   |  |  |  |  |  |  |  |
| Describe and compare measurable attri                        | ibutes.   |  |  |  |  |  |  |  |
|  | <ol> <li>Describe measurable attributes of objects, such as length or weight and<br/>describe several measurable attributes of a single object.</li> </ol>  |  |  |  |  |  |  |  |
|  | 15. Directly compare two objects with a measurable attribute in common, to see which object has "more of" or "less of" the attribute, and describe the difference.  |  |  |  |  |  |  |  |
| Classify objects and count the number of                     | of objects in each category.  |  |  |  |  |  |  |  |
|  | 16. Classify objects into given categories, count the numbers of objects in each category, and sort the categories by count. Category counts should be limited to less than or equal to 10. (e.g., Identify coins and sort them into groups of 5s or 10s.)  |  |  |  |  |  |  |  |

| Geometry                                 |   |  |  |  |  |
|--|---|--|--|--|--|
| Identify and describe shapes (squares, c | ircles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).   |  |  |  |  |
|  | <ol> <li>Describe objects in the environment using names of shapes and describe<br/>the relative positions of these objects using terms such as above, below,<br/>beside, in front of, behind and next to.</li> </ol>   |  |  |  |  |
|  | 18. Correctly name shapes regardless of their orientations or overall size.   |  |  |  |  |
|  | <ol> <li>Through the use of real-life objects, identify shapes as two-dimensional<br/>(lying in a plane, "flat") or three-dimensional ("solid").</li> </ol>   |  |  |  |  |
| Analyze, compare, create and compose     | Analyze, compare, create and compose shapes.  |  |  |  |  |
|  | 20. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners"), and other attributes (e.g., having sides of equal length). Instructional Note: Student focus should include real-world shapes. |  |  |  |  |
|  | 21. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.  |  |  |  |  |
|  | 22. Compose simple shapes to form larger shapes (e.g., "Can these two triangles, with full sides touching, join to make a rectangle?").   |  |  |  |  |