

Instructional Materials Review Criteria Sheet - Mathematics Grades 9-12

INSTRUCTIONAL MATERIALS TITLE _____ BID NO. _____

PUBLISHER _____ COPYRIGHT DATE _____

AUTHOR(S) _____ ISBN _____

ADVISOR _____

TEXTBOOK COMMISSION MEMBER _____ MEMBER'S SBE DISTRICT _____

Indicate Appropriate Course:

NC Math 1

NC Math 2

NC Math 3

Discrete Mathematics for
Computer Science

NC Math 4

Precalculus

PART I CONTENT

Compatibility with the North Carolina Curriculum for Mathematics in the North Carolina Standard Course of Study (NCSCOS). In accordance to State Board Policy TEXT-001, all items in Part I must be marked "yes" in order for the submission to be recommended.

Answer yes to indicate the materials meet the criteria or no to indicate the materials do not meet the criteria. Please explain your responses. Be sure to cite specific page numbers, textual references as well as specific standards.

		Yes	No
A.	Materials present the main concepts that support a minimum of 80% of the instructional objectives for the course/grade/media in the NCSCOS.		
B.	Content, methodology, instructional levels, and teaching strategies are consistent with the curriculum's philosophy, values, and goals.		
Documentation for PART I CONTENT			

PART II PEDAGOGY

If three (3) criteria are answered no in Part II, do not complete parts III and IV.

		Yes	No
A.	There is an appropriate balance of skill development, conceptual understanding, and mathematical practices.		
B.	Mathematical concepts are connected and interwoven across strands instead of studied in isolation.		
C.	Mathematical concepts are presented in depth and with increasing sophistication across grades.		
D.	Materials have contextual problems that engage students and give rise to further exploration of		

	mathematical concepts and include strategies and activities that are engaging and provide real world, relevant connections.		
E.	Instructional materials help teachers create a classroom that encourages high expectations for all students, enables all students to experience success, provides all students the opportunity for meaningful participation, and provides students with opportunities to manage their own learning.		
F.	Instructional materials emphasize the use of manipulatives to visualize concepts, acquire and analyze information, communicate solutions and provide a balanced approach to assessment (formative and summative).		
G.	Instructional materials (including lessons and assessments) include activities for all three stages of hands-on learning (concrete, representational, and abstract).		
H.	Instructional materials emphasize the use of technology to visualize concepts, acquire and analyze information, communicate solutions and provide a balanced approach to assessment (formative and summative).		
I.	Lessons promote classroom discourse by explicitly requiring students to share their thinking or strategies and provide students with opportunities to manage their own learning.		
J.	Instructional materials encourage application of higher-order thinking skills; promote critical thinking, communication, collaboration, and/or creativity; provide real world, relevant connections.		
K.	Instructional materials (including assessments) promote student inquiry, reflection, critical thinking, and problem solving.		
L.	Instructional materials require students to use inductive and deductive reasoning through questioning, conjecturing, explaining, and justifying.		
M.	Instructional materials are age appropriate, provide opportunities for personalization based on mathematical abilities, interests, learning styles, and use of language.		
N.	Instructional materials provide a rich source of experiences (problems, exercises, tasks, and assessments) in a variety of contexts that integrate multiple thinking skills.		
O.	Information is provided regarding what students might already know about mathematical ideas including common misconceptions that instruction should address.		
P.	Multiple forms of assessment tools (including performance tasks, open-ended questions, etc.) are provided for assessing student understanding at all stages of learning.		
Q.	Instructional materials include various assessment formats in order to inform instructional decision-making (before, during, and after instruction).		
R.	Instructional materials provide useful diagrams, charts, data sets, and/or models to help students conceptualize mathematical ideas.		

Documentation for PART II PEDAGOGY

PART III ACCESSIBILITY

Please provide evidence of the following:

A. Accuracy		<i>Yes</i>	<i>No</i>
1.	Material is error-free, current, uses correct grammar, spelling, and sentence structure. (This includes text, maps, charts, timelines, demographics, statistics, photos, etc.) Material does not contain outdated material.		
2.	Material is presented factually and objectively, representing a diverse balance of cultural, ethnic, racial, gender, and handicapped groups. (This includes text, photos, graphics, etc.)		

B. Appropriateness		<i>Yes</i>	<i>No</i>
1.	Content provides for grade appropriate, yet varied cognitive levels, abilities, and learning styles.		
2.	Instructional materials include strategies and activities that are engaging and that activate or supply prior knowledge.		
3.	Materials provide for a variety of exercises, reviews, assessments, performance tasks, etc., which provide opportunities for students to collect, organize, interpret, and evaluate		

	information critically and creatively in a variety of formats.		
4.	Format is visually appealing and not distracting from content; Features or text/layout are level appropriate and enhance learning.		

C. Scope		<i>Yes</i>	<i>No</i>
1.	Material presents information in sufficient depth and breadth to cover adequately course content in a logical manner to address grade level expectations.		
2.	Material includes necessary guides such as a table of contents, glossary (English & Spanish), index, sidebars, atlas, dictionary/thesaurus, bibliography/footnotes, <i>see</i> and <i>see also</i> references, web sites, literature links, support agencies etc.		
3.	Key concepts, skills, vocabulary are identified, developed, reviews, and reinforced.		

D. Teacher Resources		<i>Yes</i>	<i>No</i>
1.	Instructional materials include teacher resources, which provide information and opportunities for teachers to increase their own understanding of the subject specific concepts and structures for teachers to navigate and search for resources easily.		
2.	Adequate teacher resources, which include suggestions for intervention, scaffolding, acceleration, extension of learning, integration, feedback, and review.		
3.	Materials should include summary of material contents, provide instruction and/or behavioral objectives (observable outcomes that students will demonstrate at the end of a lesson), supplemental or background information and answer keys/rubrics.		
4.	User navigation of resources is easy to learn; Content structure is logical, well organized, comprehensive, durable and reasonably sized, with sufficient material for student use.		
5.	Resources should accommodate the needs of both a first-year teacher and the veteran teacher.		

E. Technology		<i>Yes</i>	<i>No</i>
1.	Technology should meet all criteria for accuracy, appropriateness, and scope. Format is easy to navigate, visually appealing and not distracting from content. Teacher materials should also meet the criteria of the teacher resources. If student access is allowed, a Save/Record feature should be included. Print resources are available or may be converted to specialized formats for accessibility.		
2.	Digital content can be assessed on various devices and Internet browsers. Digital resources are accessible.		
3.	Technology features include accessibility options to enable all users equivalent access.		
4.	The technology resource design contains motivational elements to engage students, appropriate visual and auditory elements, and provides an intuitive user interface.		
5.	There are robust digital resources for student learning, practice and assessment.		
6.	Digital materials provide opportunities for meaningful, interactive experiences.		
7.	Digital materials provide content supports for teachers to further develop expertise.		

Documentation for PART III ACCESSIBILITY

PART IV Overall Analysis: (For Textbook Commission Use Only)

These instructional materials meet the criteria ____ **yes** ____ **no**.

Documentation for PART IV: Comments that further describe standards for yes or no responses in Parts I, II, or III.

MATHEMATICS: EC EVALUATION

SUBJECT _____ GRADE _____

TEXTBOOK MATERIALS TITLE _____ BID NO. _____

PUBLISHER _____ COPYRIGHT DATE _____

AUTHOR(S) _____ ISBN _____

ADVISOR _____ TEXTBOOK COMMISSION MEMBER _____ MEMBER'S SBE DISTRICT _____

Answer "yes" to indicate the textbook materials meet the criteria or answer "no" to indicate the textbook materials do not meet the criteria.

Appropriateness, Scope, and Resources	<i>Yes</i>	<i>No</i>
1. Content provides for grade appropriate, yet varied cognitive levels, abilities, and learning styles.		
2. Content is relevant, links to and builds on student prior knowledge, contains multisensory strategies, and promotes active student engagement.		
3. Materials provide for a variety of exercises, reviews, assessments, and performance tasks, which provide opportunities for students to collect, organize, interpret, and evaluate information critically and creatively in a variety of formats, and that promote opportunities for two-way and in-depth student discourse about math (not just procedures).		
4. Text and layout are level appropriate, including font, color, spacing legibility, photos, graphics, and captioning.		
5. Supplemental resources include necessary guides such as table of contents, glossary (English & Spanish), index, sidebars, atlas, dictionary/thesaurus, bibliography/footnotes, <i>see</i> and <i>see also</i> references, web sites, literature links, and support agencies etc.		
6. Key concepts, skills, vocabulary are identified, developed, reviewed, and reinforced.		
7. Materials provide adequate teacher resources, which include suggestions for remediation, acceleration, extension of learning, integration, feedback, review, and include examples that foster in-depth understanding of math that are clearly evident throughout.		
8. Materials include a summary of contents, instruction and/or behavioral objectives, supplemental or background information, and answer keys/rubrics.		
9. Materials are well organized, easy to use, comprehensive, durable and reasonably sized, and contain sufficient material for student use.		
10. Resources accommodate the needs of beginning through veteran teachers.		
11. Technology meets criteria for accuracy, appropriateness, and scope. It is easy to navigate, visually appealing, and includes a Save/Record feature; if applicable.		

Keeping in mind the needs of EC students and their teachers, please give specifics to support both the yes and no responses.

Documentation for yes and no responses:

MATHEMATICS: EL EVALUATION

SUBJECT _____ GRADE _____

TEXTBOOK MATERIALS TITLE _____ BID NO. _____

PUBLISHER _____ COPYRIGHT DATE _____

AUTHOR(S) _____ ISBN _____

ADVISOR _____ TEXTBOOK COMMISSION MEMBER _____ MEMBER'S SBE DISTRICT _____

*Answer **yes** to indicate the textbook materials **meet the criteria** or **no** to indicate the textbook materials **do not meet the criteria**.*

Appropriateness, Scope, and Resources	Yes	No
1. Content provides grade-appropriate, yet varied linguistic levels, abilities, and learning styles.		
2. Content is relevant, addresses a variety of cultural aspects, links to prior knowledge, builds background knowledge, and promotes active student engagement.		
3. Materials provide opportunities for scaffolding interaction, such as, a variety of exercises, reviews, assessments, and performance tasks (e.g., including sentence frames, word banks, etc.).		
4. Materials provide opportunities for students to collect, organize, interpret, and evaluate information critically and creatively in a variety of formats (e.g., including the use of the student's first language).		
5. Text and layout are age/proficiency/grade-level appropriate, including font, color, spacing legibility, photos, graphics, and captioning.		
6. Material includes necessary guides such as a table of contents, glossary (e.g., English & Spanish), index, sidebars, atlas, dictionary/thesaurus, bibliography/footnotes, <i>see</i> and <i>see also</i> references, websites, literature links, and support agencies, etc.		
7. Key concepts, skills, and vocabulary are identified, developed, reviewed, and reinforced.		
8. Materials provide adequate teacher resources, which include suggestions for acceleration, extension of learning, integration, feedback, and/or review specific to English Learners.		
9. Materials include a summary of contents, instruction and/or behavioral objectives, supplemental or linguistically and culturally relevant background information, and answer keys/rubrics.		
10. Materials are well organized, easy to use, comprehensive, durable and reasonably sized.		
11. Resources accommodate the EL Support needs of beginning through veteran teachers.		
12. Technology is easy to navigate, visually appealing, and ideally includes a screen reader, dictionary, and a Save/Record feature, if applicable.		

Keeping in mind the linguistic needs of EL students and their teachers, please give specifics to support both the yes and no responses.

<p>Documentation for yes and no responses:</p>
