

COMPUTER SCIENCE

High-Quality Instructional Materials Review Rubric

Grade Range: 9-12

Evaluator		Rating Committee	
Publisher			
Title of Textbook Series/Instructional Program			
Grade Range of Textbook Series/Instructional Program		Specific Grade Evaluated	

Publisher indicated curriculum type: **Comprehensive Curriculum** **Complementary Curriculum**

This evaluation rubric is designed to offer an evaluation to determine how well instructional materials align to the [Mississippi College- and Career- Readiness Standards \(MCCRS\) for Computer Science: Software Development](#) and other criteria for high-quality instructional materials for Computer Science. The evaluation rubric includes key considerations for high-quality instructional materials and outlines three **Gateways** for consideration when evaluating materials. Within each **Gateway**, **Criterion** and related **Indicators** are provided along with **Guiding/Key Questions**.



The evaluation rubric is designed to allow reviewers to determine a threshold for quality for each gateway. Remember to focus on what is present in the instructional materials and any ancillary or complementary resources rather than what might be inferred. All scores should be based on evidence observed from the instructional materials themselves.

Scoring Protocol and Criteria:

- **No evidence (0):** No correlation between the standards and lessons, a logical sequence of content cannot be identified and/or there appear to be significant content inaccuracies, essential understandings, knowledge, or skills are not addressed, and opportunities to practice essential skills are not included.
- **Limited (1 or 2):** Limited connections between the standards and the lessons are noted, content appears to contain some inaccuracies or is not always clear, essential understandings, knowledge, or skills are not sufficiently addressed, and there is limited opportunity for students to practice essential skills.
- **Adequate (2 or 4):** Lessons are aligned with the standards, content appears accurate clear, and in sequential order, most of the essential understandings, knowledge, and skills are supported, and many opportunities are provided for students to practice essential skills.

The High-Quality Instructional Materials Review Rubric is comprised of three sections:

Gateway 1: Alignment to Standards - **This is a requirement for submission.**

→ Advance to Gateway 2 only if Gateway 1 has a score of at least **10 points**.

Gateway 2: Rigor and Instructional Practices - **This is a requirement for submission.**

→ Advance to Gateway 3 only if Gateway 2 has a score of at least **9 points**.

Gateway 3: Usability

GATEWAY 1

Alignment to Standards - This is a requirement for submission.

High-quality computer science materials are coherent and aligned to the *MCCRS for Computer Science: Software Development* to support critical thinking, teamwork, and problem-solving skills. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

- Criterion 1.1 (1a – 1d): Alignment and Accuracy**
 Materials adequately address the *MCCRS for Computer Science: Software Development*.
- Criterion 1.2 (1e – 1h): Learning Progressions and Coherence**
 Materials attend to the learning progressions emphasized in the standards, so that the curriculum is coherent both within grades and across grade bands and are coherent and consistent with the progressions in the *MCCRS for Computer Science: Software Development*.

Criterion 1.1: ALIGNMENT AND ACCURACY			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	GUIDING/KEY QUESTIONS	SCORE
Materials adequately address the MCCRS for Computer Science: Software Development. 10 possible points	COMPREHENSIVE CURRICULUM ONLY: 1a. Materials align with the Computer Science: Software Development standards listed in the Research and Curriculum Unit. (4 points)	Do the materials align with the content and skills associated with the Computer Science: Software Development standards?	0 2 4
	COMPLEMENTARY CURRICULUM ONLY: 1a. Materials align with at least 50 percent of the Computer Science: Software Development standards listed in the Research and Curriculum Unit. (4 points)	Does the curriculum support students in achieving proficiency at least 50 percent of the standards?	0 2 4
	1b. Materials align to research-based instructional practices associated with Computer Science: Software Development . (2 points)	Do the materials align to research-based instructional practices?	0 1 2

	1c. Materials connect content to real-world application in meaningful ways throughout the year. (2 points)	Do materials support the content? Is this support meaningful?	0 1 2
	1d. Materials include of a mixture of instructional strategies (e.g., discussions, modeling, student activities, projects, etc.). (2 points)	Do materials allow for a variety of instructional strategies within the lessons and across the curriculum?	0 1 2
TOTAL SCORE CRITERION 1.1 Meets: 8-10 points Partially Meets: 6-7 points Does Not Meet: 0-5 points			
Criterion 1.2: LEARNING PROGRESSIONS and COHERENCE			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	GUIDING/KEY QUESTIONS	SCORE
Each grade's instructional materials are coherent and consistent with the progressions in the Standards. 8 possible points	1e. Materials provide a coherent sequence or collection of activities and texts that build content knowledge, vocabulary, and skills. (2 points)	Is the amount of time for content and skills explicitly identified and coherent?	0 1 2
	1f. Materials make connections to technology or career implementation skills covered in past lessons, allowing students to connect new learning with past knowledge. (2 points)	Are past topics and lessons referenced as new concepts are added?	0 1 2
	1g. Materials provide scaffolding or opportunities for decreased educator support over time to promote student proficiency and independence with targeted technology or career skills. (2 points)	Is scaffolding present to promote understanding and independence in learners?	0 1 2
	1h. Content is appropriate to the grade-level and considers students' prior knowledge to incorporate this knowledge into the lesson and/or cover material not previously covered. (2 points)	Is content grade-level appropriate? Does content build upon skills students should know from previous lessons?	0 1 2

TOTAL SCORE CRITERION 1.2 Meets: 7-8 Partially Meets: 5-6 Does Not Meet: 0-4

Gateway 1 Points AVAILABLE	Gateway 1 Points ACHIEVED	GATEWAY 1 RATING
18	Sum of points from Criterion 1.1 and 1.2	<input type="checkbox"/> Meets (score of 15-18 points) PROCEED TO GATEWAY 2 <input type="checkbox"/> Partially Meets (score of 10-14 points) PROCEED TO GATEWAY 2 <input type="checkbox"/> Does Not Meet (score of 0-9 points) STOP REVIEW

GATEWAY 2

Rigor and Instructional Practices - **This is a requirement for submission.**

Gateway 2 examines the way materials support students to meet the standards rigorous expectations in the Computer Science: Software Development standards.

- Criterion 2.1 (2a – 2c): Student Learning**
 Materials identify ways in which materials are designed for each student’s regular and active participation in grade-level/grade band/series content.
- Criterion 2.2 (2d – 2g): Instructional Design**
 Materials align with student-centered practices and allow opportunities for students to explore content.

Criterion 2.1: STUDENT LEARNING			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	GUIDING/KEY QUESTIONS	SCORE
Materials identify ways in which materials are designed for each student’s regular and active participation in grade-level/grade band/series content. 8 possible points	2a. Materials provide appropriate level and type of scaffolding, differentiation, intervention, and support for a broad range of learners. (4 points)	Do materials provide teachers with strategies for meeting a range of learner needs? <ul style="list-style-type: none"> ○ Supports diverse cultural and linguistic backgrounds, interests, and styles. ○ Provides extra support for students working below grade level. ○ Provides extensions for students with high interest or working above grade level. 	0 2 4
	2b. Materials within each lesson provide multiple representations by adapting for a variety of different types of learners using alternatives to reading, writing, listening, and speaking such as translations, pictures, or graphic organizers. (2 points)	Do materials provide multiple representations for different types of learners?	0 1 2

	2c. Assessment methods are varied, making them accessible to all students and do not penalize or reward students due to exceptionalities. (2 points)	Are assessment methods varied to all accessibility for all types of students?	0 1 2
TOTAL SCORE CRITERION 2.1			
Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points			
Criterion 2.2 INSTRUCTIONAL DESIGN			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	GUIDING/KEY QUESTIONS	SCORE
Materials align with student-centered practices and allow opportunities for students to explore content. 8 possible points	2d. Materials include a mixture of instructional strategies (i.e., discussions, modeling, student activities, projects). (2 points)	Do materials allow for a variety of instructional strategies within the lessons and across the curriculum?	0 1 2
	2e. Students are provided with opportunities to work collaboratively. (2 points)	Do the materials include activities that allow students to work collaboratively?	0 1 2
	2f. Students are provided with opportunities to explore and provide solutions to open-ended prompts, connect content with real-world applications, and reflect on their learning. (2 points)	Are students provided with opportunities to explore open-ended prompts and reflect on their own learning?	0 1 2
	2g. Students are provided with exposure to career opportunities and pathways related to Computer Science: Software Development. (2 points)	Do the materials provide students with ideas of career opportunities in technology fields?	0 1 2
TOTAL SCORE CRITERION 2.2			
Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points			

Gateway 2 Points AVAILABLE	Gateway 2 Points ACHIEVED	GATEWAY 2 RATING
16	Sum of points from Criterion 2.1 and 2.2	<input type="checkbox"/> Meets (score of 14-16 points) PROCEED TO GATEWAY 2 <input type="checkbox"/> Partially Meets (score of 9-13 points) PROCEED TO GATEWAY 2 <input type="checkbox"/> Does Not Meet (score of 0-8 points) STOP REVIEW

GATEWAY 3

Usability

Materials support teachers to fully utilize the curriculum understand the skills and learning of their students and support a range of learners. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

- Criterion 3.1 (3a – 3d): Teacher Supports**
 Materials include resources for teachers to effectively plan and implement materials with integrity and to further develop their professional learning.
- Criterion 3.2 (3e – 3h): Assessment**
 Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed standards.
- Criterion 3.3 (3i – 3q): Student Supports**
 Materials designed for each student’s regular and active participation in grade-level/grade-band/series content.
- Criterion 3.4 (3r – 3u): Intentional Design**
 Materials are visually engaging and references or integrates digital technology (when applicable), with guidance for teachers.

Criterion 3.1: TEACHER SUPPORTS			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	Guiding/Key Questions	SCORE
Materials include resources for teachers to effectively plan and implement materials with integrity and to further develop their professional learning. 8 possible points	3a. Materials provide teacher guidance with useful annotations and suggestions for how to enact the student materials and ancillary materials, with specific attention to engaging students to guide their computer science development. (2 points)	Do the materials include features (glossaries, footnotes, recordings, pictures, etc.) that aid teachers (and students) in using them effectively?	0 1 2
	3b. Materials include standards correlation information that explains the role of the standards in the context of the overall series. (2 points)	Do the materials include standards correlation information, including college- and career-ready or career-technical based standards, that explains the role of	0 1 2

		the standards in the context of the overall series?	
	3c. Materials provide strategies for informing all stakeholders, including students, parents, or caregivers about the program and suggestions for how they can help support student progress and achievement. (2 points)	Do the materials provide strategies for informing all stakeholders, including students, parents, or caregivers about the program and suggestions for how they can help support student progress and achievement?	0 1 2
	3d. Materials provide a comprehensive list of supplies needed to support instructional activities. (2 points)	Does the curriculum provide a comprehensive list of required materials/supplies needed to support instructional materials?	0 1 2

TOTAL SCORE CRITERION 3.1
Meets: 7-8 points | **Partially Meets:** 5-6 points | **Does Not Meet:** 0-4 points

Criterion 3.2: ASSESSMENTS

CRITERIA	INDICATORS OF SUPERIOR QUALITY	Guiding/Key Questions	SCORE
Materials includes a system of assessments identifying how materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the standards. 12 possible points	3e. Assessment information is included in the materials to indicate which standards are assessed. (2 points)	Do the standards correlations or assessment guidance documents indicate if all standards for the content area are assessed by the end of the year?	0 1 2
	3f. Assessment system provides multiple opportunities throughout the grade, course, and/or series to determine students' learning and sufficient guidance to teachers for interpreting student performance and suggestions for follow-up. (4 points)	Do the materials include multiple types of formative assessments? Do the materials include multiple types of summative assessments?	0 2 4
	3g. Assessments include opportunities for students to demonstrate the full intent of grade-level/course-level standards and practices across the series. (4 points)	Do the assessments include a variety of modalities (e.g., writing, illustrating, demonstrating, modeling, oral presentations, and performance tasks)	0 2 4

		and how are they used across different assessments? Do the assessment tasks incorporate sufficient complexity to assess the depth of the performance expectations?	
	3h. Assessments offer accommodations that allow students to demonstrate their knowledge and skills without changing the content of the assessment. (2 points)	Do materials include assessments that reflect a variety of knowledge levels?	0 1 2

TOTAL SCORE CRITERION 3.2
Meets: 10-12 | Partially Meets: 7-9 | Does Not Meet: 0-6

Criterion 3.3: STUDENT SUPPORTS

CRITERIA	INDICATORS OF SUPERIOR QUALITY	Guiding/Key Questions	SCORE
Materials designed for each student’s regular and active participation in grade-level/grade-band/series content. 18 possible points	3i. Materials provide strategies and supports for students in special populations to support their regular and active participation in Computer Science: Software Development. (2 points)	Do materials provide differentiation supports to sufficiently engage students? Do the materials include overarching guidance on strategies and accommodations for special populations?	0 1 2
	3j. Materials provide extensions and/or opportunities for students to engage with Computer Science: Software Development at higher levels of complexity. (2 points)	What opportunities do students have to develop and apply higher-level thinking?	0 1 2
	3k. Materials provide varied approaches to learning tasks over time and variety in how students are expected to demonstrate their learning with opportunities for students to monitor their learning. (2 points)	What approaches to presentation of material are provided? What approaches are provided for students to demonstrate and monitor their learning?	0 1 2

		Do the approaches to presentation and demonstration of learning vary over the course of the year?	
	3l. Materials provide opportunities for teachers to use a variety of grouping strategies. (2 points)	How and where do the materials provide guidance for the teacher on how and when to use specific grouping strategies?	0 1 2
	3m. Materials provide strategies and supports for students who read, write, and/or speak in a language other than English to regularly participate in learning. (2 points)	Where do materials provide appropriate support, and accommodations for EL students that will support their regular and active participation in learning?	0 1 2
	3n. Materials provide a balance of images or information about people, representing various demographic and physical characteristics. (2 points)	Are depictions of demographics or physical characteristics portrayed positively across the curriculum?	0 1 2
	3o. Materials provide guidance to encourage teachers to draw upon student home language to facilitate learning. (2 points)	Do the materials include instruction on how to garner information of a student's home language that will aid in learning?	0 1 2
	3p. Materials provide guidance to encourage teachers to draw upon student cultural and social backgrounds to facilitate learning. (2 points)	How well do the materials connect to the students' funds of knowledge, culture, or community?	0 1 2
	3q. Materials provide supports for different reading levels to ensure accessibility for students. (2 points)	How and where do the materials include specific supports or strategies to modify lessons or activities for students who read, write, speak, or listen below grade level?	0 1 2
TOTAL SCORE CRITERION 3.3			
Meets: 15-18 points Partially Meets: 10-14 points Does Not Meet: 0-9 points			
Criterion 3.4: INTENTIONAL DESIGN			
CRITERIA	INDICATORS OF SUPERIOR QUALITY	Guiding/Key Questions	SCORE

Materials are visually engaging and references or integrates digital technology (when applicable), with guidance for teachers. 8 possible points	3r. Materials integrate technology such as interactive tools, virtual manipulatives/objects, and/ or dynamic software in ways that engage students in the grade-level/series standards, when applicable. (2 points)	Do the materials integrate digital technology and interactive tools in ways that support student engagement in content?	0 1 2
	3s. Materials include or reference digital technology that provides opportunities for teachers and/or students to collaborate with each other, when applicable. (2 points)	Do the digital materials provide opportunities for teachers and/or students to collaborate with each other?	0 1 2
	3t. The visual design (whether in print or digital) supports students in engaging thoughtfully with the subject and is neither distracting nor chaotic. (2 points)	Does the visual design support student learning and engagement, without being visually distracting?	0 1 2
	3u. Materials provide teacher guidance for the use of embedded technology to support and enhance student learning, when applicable. (2 points)	Do the materials provide teacher guidance for the use of embedded technology to support and enhance student learning?	0 1 2
TOTAL SCORE CRITERION 3.4 Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points			

Gateway 3 Points AVAILABLE	Gateway 3 Points ACHIEVED	GATEWAY 3 RATING
46	Sum of Criterion 3.1, 3.2, 3.3, and 3.4 points	<input type="checkbox"/> Meets (score of 35-46 points) <input type="checkbox"/> Partially Meets (score of 24-34 points) <input type="checkbox"/> Does Not Meet (score of 0-23 points)

TOTAL SCORE (Gateway 1, 2, and 3)			
GATEWAY 1	GATEWAY 2	GATEWAY 3	GRAND TOTAL
of 18 points	of 16 points	of 46 points	of 80 points