

UNMANNED AIRCRAFT SYSTEMS

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 evaluate how well instructional materials align with the [Mississippi College- and Career-Readiness Standards \(MCCRS\) for Unmanned Aircraft Systems](#), and other criteria for high-quality instructional materials for the **Energy and Natural Resources Career Cluster**. The evaluation rubric includes key considerations for high-quality instructional materials and outlines three **Gateways** for evaluating materials. Within each **Gateway**, **Criterion**, and related **Indicators** are provided along with **Guiding Questions** and **Evidence**.



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):** There is no correlation between the standards and lessons; a logical sequence of content cannot be identified, significant content inaccuracies exist, essential understandings, knowledge, or skills are not addressed, and opportunities to practice essential skills are excluded.
- **Limited (1 or 2):** Limited connections between the standards and the lessons are noted; content may contain some inaccuracies or may not always be 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 align with the standards; content appears accurate, clear, and in sequential order. Most essential understandings, knowledge, and skills are supported, and many opportunities are provided for students to practice these 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 scores at least **10 points**.

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

→ Advance to Gateway 3 only if Gateway 2 scores at least **9 points**.

Gateway 3: Usability

GATEWAY 1

Alignment to Standards - This is a required submission component.

High-quality digital technology materials are coherent and aligned to the **MCCRS for Unmanned Aircraft Systems** to support critical thinking, teamwork, and problem-solving skills. To determine the Gateway rating, educators use evidence from the instructional materials to score indicators related to each criterion.

- **Criterion 1.1 (1a – 1d): Alignment and Accuracy 10 possible points**
Materials adequately address the **MCCRS for Unmanned Aircraft Systems**.
- **Criterion 1.2 (1e – 1g): Learning Progressions and Coherence 8 possible points**
Materials attend to the learning progressions emphasized in the standards, so that the curriculum is coherent both within grades and across grade bands and is cohesive and consistent with the progressions in the **MCCRS for Unmanned Aircraft Systems**.

Criterion 1.1: ALIGNMENT AND ACCURACY			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
COMPREHENSIVE CURRICULUM: 1a. Materials fully align with 100% of the curriculum standards in the Digital Technology Career Cluster . (4 points)	<ul style="list-style-type: none"> • Are the Digital Technology Career Cluster standards clearly identified in each lesson? • Are the standards fully addressed? • Is the content rigorous and age-appropriate? 	<ul style="list-style-type: none"> • Standards listed in lesson plans • Standards fully addressed • Grade-level complexity and depth 	0 2 4
COMPLEMENTARY CURRICULUM: 1a. Materials align with at least 50% of the Unmanned Aircraft Systems curriculum standards. (4 points)	<ul style="list-style-type: none"> • Are the Digital Technology Career Cluster standards clearly identified in each lesson? • Are the standards at least 50 percent addressed? • Is the content rigorous and age-appropriate? 	<ul style="list-style-type: none"> • Standards listed in lesson plans • Standards partially addressed • Grade-level complexity and depth 	0 2 4
1b. Instructional approaches are grounded in proven, research-supported practices relevant to the unmanned aircraft field. (2 points)	<ul style="list-style-type: none"> • Do materials use proven instructional strategies for CTE/unmanned aircraft topics? 	<ul style="list-style-type: none"> • Mention of educational research or evidence-based methods • Visible use of strategies like inquiry, modeling, or cooperative learning 	0 1 2

	<ul style="list-style-type: none"> Are research sources or references identified? 		
1c. Content is connected to meaningful, real-world unmanned aircraft industry applications throughout the year. (2 points)	<ul style="list-style-type: none"> Do materials connect learning to current, real-world scenarios in the unmanned aircraft field? Are students analyzing real issues or innovations in the industry? 	<ul style="list-style-type: none"> Case studies, industry examples, field problems Projects based on current trends or innovations Student exploration of relevant challenges 	0 1 2
1d. A range of instructional strategies is used (e.g., discussions, modeling, hands-on activities, and projects). (2 points)	<ul style="list-style-type: none"> Are there varied teaching methods used (e.g., hands-on, discussions, projects)? Do students have multiple ways to show what they've learned? 	<ul style="list-style-type: none"> Lesson plans with varied activities Use of visuals, labs, simulations, or group work Multiple assessment formats 	0 1 2
<p style="text-align: right;">TOTAL SCORE CRITERION 1.1</p> <p>Meets: 8-10 points Partially Meets: 6-7 points Does Not Meet: 0-5 points</p>			
Criterion 1.2: LEARNING PROGRESSIONS and COHERENCE			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
1e. Materials follow a clear and logical progression of activities and texts that develop students' knowledge, vocabulary, and skills over time. (2 points)	<ul style="list-style-type: none"> Is the content delivered in a clear, logical sequence? Does it intentionally build knowledge and skills over time? 	<ul style="list-style-type: none"> Pacing guides or unit plans Progression of complexity in tasks Clear learning timelines 	0 1 2
1f. Content links new concepts to previously taught technology or career-related skills, helping students integrate and apply past knowledge. (2 points)	<ul style="list-style-type: none"> Are past lessons referenced when introducing new material? Do students make meaningful connections between past and current content? 	<ul style="list-style-type: none"> Spiral review or references to prior units Reinforcement of previously learned skills 	0 1 2
1g. Lessons include structured support that gradually fades, enabling students to build independence and proficiency in targeted skills. (2 points)	<ul style="list-style-type: none"> Does support gradually decrease to foster student independence? Are students equipped to apply skills on their own over time? 	<ul style="list-style-type: none"> Gradual release of responsibility model Independent practice or self-directed tasks 	0 1 2

1h. Content matches the appropriate grade level and intentionally builds on students' prior knowledge to address gaps or extend understanding. (2 points)	<ul style="list-style-type: none"> Is the content appropriate for the target grade? Does it build on what students are expected to already know? 	<ul style="list-style-type: none"> Alignment with grade-level standards Activities that activate or assess prior knowledge 	0 1 2
<p style="text-align: right;">TOTAL SCORE CRITERION 1.2</p> <p>Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points</p>			

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 how materials support students in meeting the rigorous standards and expectations in the digital technology framework.

- **Criterion 2.1 (2a – 2c): Student Learning 8 possible points**
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 8 possible points**
Materials align with student-centered practices, offering students opportunities to explore the content.

Criterion 2.1: STUDENT LEARNING			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
2a. Materials offer appropriate scaffolds, interventions, and extensions to support diverse learner needs, including students below, at, or above grade level. (4 points)	<ul style="list-style-type: none"> • Are there strategies for supporting a range of learners? • Is there support for struggling and advanced students? 	<ul style="list-style-type: none"> • Differentiated tasks and extensions • Scaffolds for below-grade-level learners • Guidance for teacher adjustments 	0 2 4
2b. Lessons use varied formats (e.g., visuals, graphic organizers, translations) to meet the needs of learners who benefit from alternatives to traditional reading, writing, speaking, or listening. (2 points)	<ul style="list-style-type: none"> • Do materials support various learning styles? • Are concepts represented visually, verbally, and interactively? 	<ul style="list-style-type: none"> • Graphic organizers, images, translations • Activities with multiple entry points 	0 1 2
2c. Assessments are flexible and accessible, allowing students to demonstrate learning in various ways without being limited by exceptionalities. (2 points)	<ul style="list-style-type: none"> • Are assessment methods diverse and accessible? • Do they allow for equitable demonstration of understanding? 	<ul style="list-style-type: none"> • Rubrics, portfolios, oral assessments, drawings • Guidance for interpreting responses • Accessible formats for exceptional learners 	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

INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
2d. Lessons use a variety of instructional strategies (e.g., discussions, modeling, hands-on activities, and projects) to support learning and engagement. (2 points)	<ul style="list-style-type: none"> Are multiple instructional methods used (e.g., discussions, modeling, projects)? Do lessons vary in format over time to deepen understanding? 	<ul style="list-style-type: none"> Lesson plans show use of varied formats (group work, labs, visual tools) Strategies clearly align with learning goals 	0 1 2
2e. Students have regular opportunities to collaborate with peers or teachers to build understanding and teamwork skills. (2 points)	<ul style="list-style-type: none"> Do materials include opportunities for peer or teacher-student collaboration? Are group tasks or peer discussions incorporated? 	<ul style="list-style-type: none"> Partner/group work activities Collaborative protocols (e.g., think-pair-share, jigsaw) Teacher-facilitated discussions 	0 1 2
2f. Students engage with open-ended questions, real-life scenarios, and reflective activities that promote problem-solving and personal insight. (2 points)	<ul style="list-style-type: none"> Are students prompted to explore open-ended questions or real-world issues? Do they reflect on learning and propose solutions? 	<ul style="list-style-type: none"> Activities involving real-world scenarios or case studies Open-ended writing or presentation tasks Reflection journals or solution-focused projects 	0 1 2
2g. Lessons introduce students to career options and pathways in multimedia and related technology fields. (2 points)	<ul style="list-style-type: none"> Do materials expose students to career options in multimedia or related tech fields? Are career pathways integrated into content? 	<ul style="list-style-type: none"> Career spotlights or guest speaker suggestions Lessons mentioning job roles, industry tools, or required skills Career exploration activities or videos 	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

The materials support teachers in fully utilizing the curriculum, understanding their students' skills and learning needs, and accommodating 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 eight possible points**
Materials include resources for teachers to plan and implement materials with integrity effectively, as well as to develop their professional learning further.
- **Criterion 3.2 (3e – 3h): Assessment 12 possible points**
Materials include a system of assessments that identify how materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress toward the standards.
- **Criterion 3.3 (3i – 3o): Student Supports 14 possible points**
Materials are designed to encourage students' regular and active participation in grade-level, grade-band, or series content.
- **Criterion 3.4 (3p – 3s): Intentional Design 8 possible points**
Materials are visually engaging and reference or integrate digital technology (when applicable), with teacher guidance.

Criterion 3.1: TEACHER SUPPORTS			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
3a. Materials include clear teacher directions, annotations, and suggestions to effectively deliver content and engage students. (2 points)	<ul style="list-style-type: none"> Do materials include clear instructional guidance and examples for teachers? Are student misconceptions anticipated and addressed? Are adult-level explanations provided to support teacher content knowledge? 	<ul style="list-style-type: none"> Lesson overviews, annotations, and teaching tips Misconception alerts Explanations of complex concepts for teacher understanding 	0 1 2
3b. Lessons include explicit connections to relevant standards, explaining how they fit into the broader instructional program. (2 points)	<ul style="list-style-type: none"> Do materials clearly align with state, CTE, or career-readiness standards? Is the role of standards explained in the context of the program? 	<ul style="list-style-type: none"> Standards alignment charts References to CTE/career-ready frameworks Explanation of how standards guide instruction 	0 1 2

3c. Materials offer tools and strategies to inform and involve students, parents, and caregivers in supporting learning at home. (2 points)	<ul style="list-style-type: none"> Are there tools to inform parents, caregivers, and students? Are suggestions included to support learning at home? Are resources available in multiple languages? 	<ul style="list-style-type: none"> Letters, handouts, or parent portals Multilingual resources Home engagement tips or activity suggestions 	0 1 2
3d. A complete inventory of required materials—both print and digital—is included to support lesson delivery and activities. (2 points)	<ul style="list-style-type: none"> Is there a complete list of all materials (digital and physical) needed for instruction? Are resources organized and easy to access? 	<ul style="list-style-type: none"> Master supply lists per unit or lesson Tech tool requirements Printable/downloadable supply checklists 	0 1 2
<p style="text-align: right;">TOTAL SCORE CRITERION 3.1</p> <p>Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points</p>			
Criterion 3.2: ASSESSMENTS			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
3e. Assessments clearly identify the standards being measured and ensure all course standards are covered by year's end. (2 points)	<ul style="list-style-type: none"> Do assessments clearly indicate the standards being assessed? Are all relevant standards covered by the end of the course or year? 	<ul style="list-style-type: none"> Standards-to-assessment correlation charts Unit or end-of-course standards checklists Explicit labeling of assessed standards 	0 1 2
3f. A range of assessments (formative and summative) are included throughout the program, along with rubrics, scoring guidance, and teacher supports for interpreting results and planning next steps. (4 points)	<ul style="list-style-type: none"> Are both formative and summative assessments included across the curriculum? Is there guidance for scoring and interpreting results? Are suggestions provided for next steps based on assessment data? 	<ul style="list-style-type: none"> Rubrics, scoring guides, and sample responses Teacher directions for adjusting instruction based on data Variety of assessments: exit tickets, projects, quizzes 	0 2 4
3g. Assessments provide multiple formats (e.g., written, oral, performance tasks) and evaluate the full complexity of grade-level or course-level expectations. (4 points)	<ul style="list-style-type: none"> Do assessments allow students to demonstrate understanding in different formats? Do tasks align with the full depth and rigor of standards? 	<ul style="list-style-type: none"> Assessments using writing, discussion, oral presentations, problem-solving, drawing, modeling, etc. Complex tasks with multi-step reasoning 	0 2 4

	<ul style="list-style-type: none"> Are performance tasks included? 	<ul style="list-style-type: none"> Constructed responses and performance-based assessments 	
3h. Materials include accommodations (e.g., text-to-speech, enlarged text) that allow all students to demonstrate understanding without altering assessment content, with guidance for teacher use. (2 points)	<ul style="list-style-type: none"> Are accommodations included to support diverse learners without changing assessment content? Is there guidance on how to apply them? 	<ul style="list-style-type: none"> Accessibility options (e.g., text-to-speech, font adjustments) Teacher notes on accommodating ELs, SPED, or other needs Guidance that maintains rigor while ensuring access 	0 1 2
TOTAL SCORE CRITERION 3.2 Meets: 10-12 points Partially Meets: 7-9 points Does Not Meet: 0-6 points			
Criterion 3.3: STUDENT SUPPORTS			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
3i. Materials offer strategies and accommodations to ensure active participation of students with varied learning needs without altering content. (2 points)	<ul style="list-style-type: none"> Are accommodations and strategies provided for all learners without changing content expectations? 	<ul style="list-style-type: none"> Text-to-speech, font adjustments Scaffolded instruction for special populations 	0 1 2
3j. Materials provide enrichment or advanced tasks for students to explore content at greater depth and complexity. (2 points)	<ul style="list-style-type: none"> Do materials offer deeper-level tasks for students ready to engage in advanced content? 	<ul style="list-style-type: none"> Open-ended challenges Activities promoting analysis, synthesis, or real-world application 	0 1 2
3k. Materials include varied learning tasks and allow students to demonstrate and monitor their understanding over time. (2 points)	<ul style="list-style-type: none"> Do students engage in different formats and track their learning over time? 	<ul style="list-style-type: none"> Reflective tasks, portfolios Visual, oral, written expression of learning 	0 1 2
3l. Materials guide teachers in using varied grouping formats to promote student interaction and collaboration. (2 points)	<ul style="list-style-type: none"> Are grouping formats and strategies clearly defined for teachers? 	<ul style="list-style-type: none"> Guidance on when/how to group Activities supporting peer interaction 	0 1 2
3m. Materials include strategies and accommodations to support multilingual learners in participating fully in instruction. (2 points)	<ul style="list-style-type: none"> Are there strategies to help ELs participate in grade-level work? 	<ul style="list-style-type: none"> Language scaffolds Guidance on differentiating between language and content needs 	0 1 2

3n. Materials encourage and guide teachers to incorporate students' home languages to support learning (2 points)	<ul style="list-style-type: none"> Do materials encourage leveraging students' home languages? 	<ul style="list-style-type: none"> Strategies using home language to support tech learning Emphasis on multilingualism as an asset 	0 1 2
3o. Materials include scaffolds and strategies to support students reading below grade level. (2 points)	<ul style="list-style-type: none"> Are lessons adapted for struggling readers without lowering rigor? 	<ul style="list-style-type: none"> Pre-reading supports Multiple entry points and representation types 	0 1 2
<p style="text-align: right;">TOTAL SCORE CRITERION 3.3</p> <p>Meets: 11-14 points Partially Meets: 8-10 points Does Not Meet: 0-7 points</p>			
Criterion 3.4: INTENTIONAL DESIGN			
INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
3p. Materials use interactive tools, virtual manipulatives, or dynamic software to enhance engagement and support learning goals. (2 points)	<ul style="list-style-type: none"> Do materials include engaging digital tools (e.g., simulations, virtual manipulatives, interactive elements)? Do these tools directly support learning goals? 	<ul style="list-style-type: none"> Interactive simulations, apps, or videos that align with objectives Technology embedded in lessons for active learning 	0 1 2
3q. Digital components include opportunities for teacher-student, student-student, or teacher-teacher collaboration. (2 points)	<ul style="list-style-type: none"> Do materials promote collaboration (e.g., forums, shared projects, communication tools)? Can students and teachers interact through the platform? 	<ul style="list-style-type: none"> Digital spaces for discussion or feedback (e.g., chats, shared docs) Group tasks requiring collaborative tools or submissions 	0 1 2
3r. Visual elements (e.g., graphics, models, layout) are organized, relevant, and support understanding without being distracting. (2 points)	<ul style="list-style-type: none"> Is the design clear, uncluttered, and focused on student learning? Are visuals meaningful and not distracting? 	<ul style="list-style-type: none"> Clean layout with consistent formatting Relevant charts, images, and diagrams Functional navigation (e.g., table of contents, hyperlinks) 	0 1 2
3s. Resources include clear instructions for using embedded tech, are compatible with common LMS platforms, browsers, and school devices. (2 points)	<ul style="list-style-type: none"> Is there guidance for teachers on using embedded tech? Are tools compatible with school systems (LMS, browsers, devices)? 	<ul style="list-style-type: none"> Tech setup instructions or video tutorials Compatibility details (LMS/browser/device) Embedded tech guidance in teacher manuals 	0 1 2

<p style="text-align: right;">TOTAL SCORE CRITERION 3.4</p> <p>Meets: 7-8 points Partially Meets: 5-6 points Does Not Meet: 0-4 points</p>	
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Gateway 3 Points AVAILABLE	Gateway 3 Points ACHIEVED	GATEWAY 3 RATING
42	Sum of Criterion 3.1, 3.2, 3.3, and 3.4 points	<input type="checkbox"/> Meets (score of 31-42 points) <input type="checkbox"/> Partially Meets (score of 22-32 points) <input type="checkbox"/> Does Not Meet (score of 0-21 points)

TOTAL SCORE (Gateway 1, 2, and 3)			
GATEWAY 1	GATEWAY 2	GATEWAY 3	GRAND TOTAL
of 18 points	of 16 points	of 42 points	of 76 points