SCIENCE

High-Quality Instructional Materials Review Rubric

Advanced Placement

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

This evaluation rubric is designed to evaluate how well instructional materials align with the *Advanced Placement Science Courses* and other criteria for high-quality instructional materials for the **science curriculum**. 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 help reviewers establish a quality threshold for each Gateway. Remember to concentrate on the content present in the instructional materials and any ancillary or complementary resources rather than what may 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 science materials provide all students with extensive opportunities to engage with grade-level content, fulfilling the complete intent of the ***Advanced Placement for Science***. Educators use evidence from instructional materials to evaluate indicators relevant to each criterion and assess the Gateway rating.

- **Criterion 1.1 (1a – 1d): Alignment and Accuracy 10 possible points**
  Materials adequately address the ***Advanced Placement for Science***.
- **Criterion 1.2 (1e – 1h): 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 ***Advanced Placement for Science.***

Criterion 1.1: ALIGNMENT AND ACCURACY			
INDICATORS OF SUPERIOR QUALITY	**GUIDING QUESTIONS**	**EVIDENCE OF HOW THE MATERIALS**	**SCORE**
1a. Materials fully align with 100% of the curriculum standards in the **AP Science** curriculum. (4 points)	• Are **AP Science curriculum** standards explicitly identified for each lesson or unit? • Are standards comprehensively and accurately addressed in instructional content and activities? • Does the material meet or exceed the complexity and cognitive demand expected for AP-level coursework?	• Standards cited within lesson and unit plans • Documentation showing full coverage of each standard • Tasks and assessments reflecting AP-level rigor and depth	**0 2 4**
1b. Instructional approaches are grounded in proven, research-supported practices relevant to **AP Science**. (2 points)	• Do instructional methods reflect evidence-based strategies known to improve AP Science learning outcomes? • Are relevant research sources, frameworks, or best-practice guidelines cited or referenced?	• Explicit mention of pedagogical research or educational theories supporting strategies • Demonstrated use of inquiry-based learning, modeling, argumentation, cooperative investigations, or other AP-recommended practices	**0 1 2**

1c. Materials present scientific content, practices, and the nature of science accurately. (2 points)	• Is all scientific information presented factually accurate, current, and aligned with authoritative sources? • Are scientific practices, reasoning, and the nature of science clearly articulated?	• Use of precise scientific terminology and correct concepts • Clear explanations of scientific methods, experimental design, data analysis, and communication of results	**0 1 2**
1d. Materials support student development and the use of models to explain scientific phenomena. (2 points)	• Are students engaged in developing models to describe, explain, and predict scientific phenomena? • Are there opportunities for students to evaluate, refine, and iterate on their models based on evidence? • Are varied types of models incorporated (e.g., conceptual diagrams, physical models, computer simulations)?	• Modeling tasks integrated into instructional sequences • Structured opportunities for students to revise models as they deepen understanding • Variety of modeling formats represented across activities • Both collaborative and independent modeling experiences included	**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

INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
1e. Materials follow a logical sequence that supports increasing depth and independence in scientific practices. (2 points)	• Does the curriculum provide a clear, coherent sequence of lessons that build progressively in complexity? • Do instructional activities transition students from teacher-directed instruction to self-directed scientific inquiry?	• Comprehensive scope and sequence chart mapping lessons and skills • Clearly documented progression of concepts and scientific practices • Tasks and assessments showing increased student autonomy over time	**0 1 2**
1f. Materials help students relate new concepts to previously learned content. (2 points)	• Do instructional materials explicitly reference and build upon previously taught content, both within the course and from prerequisite knowledge? • Are connections between prior and new concepts made clear and purposeful to deepen understanding?	• Introductory prompts or guiding questions linking new topics to past content • Embedded review or spiraling activities reinforcing earlier concepts	**0 1 2**

		• Specific references to prior units, standards, or prerequisite topics in lesson materials	
1g. Materials include instructional supports that gradually release responsibility to students. (2 points)	• Do instructional supports facilitate a structured shift from guided practice to independent application of scientific concepts and skills? • Are scaffolds systematically reduced as students demonstrate proficiency?	• Lessons with explicit modeling followed by guided and independent practice phases • Clear strategies for fading teacher support (e.g., reducing prompts, increasing complexity) • Assessments or tasks requiring students to independently apply learned skills	**0 1 2**
1h. Content is developmentally appropriate and leverages students' prior knowledge. (2 points)	• Is the scientific content developmentally appropriate for AP-level expectations, including prerequisite knowledge and cognitive readiness? • Do activities intentionally activate and extend students' prior knowledge and experiences?	• Documentation of alignment with AP curriculum standards and expectations • Background knowledge-building activities embedded in lessons • Tasks, labs, or assessments explicitly designed for AP-level cognitive and analytical skills	**0 1 2**
TOTAL SCORE CRITERION 1.2 **Meets:** 7-8 points **| Partially Meets:** 5-6 points **| Does Not Meet:** 0-4 points			

Gateway 1 Points **AVAILABLE**	Gateway 1 Points **ACHIEVED**	**GATEWAY 1 RATING**
18	Sum of points from Criterion 1.1 and 1.2	☐ **Meets** (score of 15-18 points) **PROCEED TO GATEWAY 2** ☐ **Partially Meets** (score of 10-14 points) **PROCEED TO GATEWAY 2** ☐ **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 of the ***Advanced Placement for Science***.

- **Criterion 2.1 (2a – 2o): Student Learning 32 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 (2p – 2r): Instructional Design 6 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 include clear strategies for supporting students at all levels, including interventions, extensions, and differentiation. (4 points)	• Are supports embedded for struggling, on-level, and advanced students? • Are differentiation strategies systematically integrated? • Are interventions and extensions provided to ensure access and challenge?	• Tiered assignments and leveled resources • Intervention guides and enrichment opportunities • Teacher materials offering guidance for adjusting instruction to student readiness	**0 2 4**
2b. Lessons use varied formats—visual, auditory, and kinesthetic—to support different learning needs and preferences. (2 points)	• Do materials present information through visual, auditory, and kinesthetic formats? • Are multiple entry points available for students to engage with tasks?	• Use of graphic organizers, videos, and hands-on activities • Multilingual materials or translated resources • Lessons integrating visuals, audio, and movement-based strategies	**0 1 2**
2c. Assessments utilize multiple formats, allowing students to demonstrate understanding in various ways. (2 points)	• Do assessments include varied methods to allow students different ways to demonstrate mastery? • Is teacher guidance provided to interpret assessment data?	• Rubrics, exemplars, or annotated sample responses • Performance-based tasks, portfolios, oral responses, or visual projects • Clear guidance on scoring, interpretation, and providing feedback	**0 1 2**

2d. Students are encouraged to ask questions and define open-ended, real-world problems. (2 points)	• Are students prompted to generate authentic questions and define open-ended problems? • Are they engaged in open-ended inquiry throughout lessons??	• "Notice and wonder" protocols or brainstorming activities • Open-ended tasks, problem-based learning projects • Guides or scaffolds supporting question formation	**0 1 2**
2e. Materials offer students opportunities to design and conduct investigations. (2 points)	• Do students plan and conduct investigations to collect and analyze data, explaining phenomena? • Are there opportunities to evaluate and refine their experimental designs?	• Lessons requiring students to create and execute their own investigations • Tasks involving iterative design and revision • Teacher supports safe and effective student-led investigations.	**0 1 2**
2f. Students analyze, interpret, and compare data using multiple tools and formats. (2 points)	• Do students analyze data to identify patterns, relationships, or solutions? • Are varied data types and tools integrated into instruction?	• Lessons with charts, graphs, tables, and digital data sets • Tasks comparing or interpreting different data representations • Use of digital tools (e.g., spreadsheets, graphing software) for analysis	**0 1 2**
2g. Students apply math and logical reasoning to understand and solve scientific problems. (2 points)	• Are students using math concepts to model, interpret, or solve scientific problems? • Are they applying logical reasoning to break down complex processes?	• Activities involving quantitative analysis and calculations • Tasks requiring sequencing, algorithmic thinking, or modeling • Science problems that integrate relevant mathematical concepts	**0 1 2**
2h. Students make and support claims using data, evidence, and scientific reasoning. (2 points)	• Are students constructing and defending claims with valid evidence? • Do lessons include argumentation and critique aligned with AP practices?	• CER (Claim-Evidence-Reasoning) frameworks and tasks • Peer discussions or debates analyzing evidence • Assignments requiring students to support conclusions with data	**0 1 2**
2i. Materials show how scientific ideas change with new evidence and technological advances. (2 points)	• Do materials illustrate how scientific theories change with new evidence or technological advances? • Are historical and contemporary case studies included?	• Comparisons of outdated vs. current models or explanations • Timelines or narratives showing the evolution of scientific ideas • Analysis of how modern tools or discoveries impact understanding	**0 1 2**

2j. Students engage in structured discussions based on evidence and scientific data. (2 points)	• Do students engage in regular discussions that involve comparing ideas and critiquing arguments based on evidence? • Are discussions structured to support scientific discourse?	• Sentence stems and talk moves promoting evidence-based dialogue • Teacher prompts guiding structured conversations • Group routines emphasizing scientific reasoning	**0 1 2**
2k. Students communicate scientific ideas in various formats for different audiences and purposes. (2 points)	• Are students asked to communicate their ideas through different formats and to authentic audiences? • Do tasks emphasize adapting communication for specific purposes?	• Assignments involving presentations, videos, posters, or digital media • Projects with real or simulated audiences (e.g., community, experts) • Opportunities for feedback on communication effectiveness	**0 1 2**
2l. Materials support the growth of scientific vocabulary and structured discourse over time. (2 points)	• Are students supported in developing precise, academic vocabulary over time? • Are discourse routines established to advance scientific communication skills?	• Structured discussions emphasizing academic language • Progressive increase in vocabulary complexity across units	**0 1 2**
2m. Instruction is centered on real-world phenomena or problems that drive learning. (2 points)	• Do lessons use real-world phenomena or authentic problems as the anchor for learning? • Is content consistently connected back to these driving questions or phenomena?	• Lessons beginning with engaging phenomena • Explanations and models directly tied to observed events or authentic contexts • Phenomena revisited throughout the learning cycle	**0 1 2**
2n. Phenomena are introduced at the start of lessons, with explanations and vocabulary developed later. (2 points)	• Are phenomena introduced before formal explanations? • Do students revisit phenomena as understanding progresses?	• Lessons starting with observations, events, or questions • Inquiry cycles bring students back to the initial phenomena • Scaffolding connecting evolving explanations to original observations	**0 1 2**
2o. Phenomena and problems relate to students' existing knowledge and experiences. (2 points)	• Are new concepts and problems explicitly connected to what students already know or have experienced? • Are supports included to activate and build on students' existing knowledge?	• Prompts or warm-ups linking new content to familiar contexts • Activities encouraging students to share personal or prior experiences • Tasks grounded in students' communities, interests, or everyday lives	**0 1 2**

TOTAL SCORE CRITERION 2.1 **Meets:** 26-32 points **| Partially Meets:** 17-25 points **| Does Not Meet:** 0-16 points	

Criterion 2.2 INSTRUCTIONAL DESIGN

INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
2p. Lessons employ a range of instructional strategies (e.g., discussions, modeling, hands-on activities, and projects) to foster learning and engagement. (2 points)	• Do instructional materials incorporate a range of evidence-based strategies—such as discussions, modeling, labs, and projects—to meet AP-level learning goals? • Do lessons vary in instructional format over time to deepen conceptual understanding and maintain student engagement?	• Lesson plans demonstrating the integration of multiple formats (e.g., group discussions, hands-on labs, simulations, data analysis tasks) • Clear alignment of instructional strategies with targeted AP learning objectives • Use of differentiated approaches to address numerous learning preferences and needs	**0 1 2**
2q. Students have regular opportunities to collaborate with peers or teachers to build understanding and teamwork skills. (2 points)	• Do materials include structured opportunities for students to collaborate with peers and teachers to enhance understanding of scientific concepts? • Are group tasks, peer discussions, or collaborative problem-solving activities intentionally designed and implemented?	• Partner or group work activities embedded in lessons and labs • Clearly defined collaborative protocols • Teacher-facilitated discussions and cooperative investigations fostering teamwork and communication	**0 1 2**
2r. Students engage with open-ended questions, real-life scenarios, and reflective activities that promote problem-solving and personal insight. (2 points)	• Are students challenged with open-ended questions or real-life scenarios requiring critical thinking and evidence-based reasoning? • Do lessons provide opportunities for reflection on learning and the development of creative, practical solutions?	• Activities involving analysis of real-world problems, case studies, or authentic phenomena • Open-ended writing assignments, presentations, or debates requiring synthesis and justification of ideas • Reflective tasks such as journals, self-assessments, or projects focused on applying concepts to new contexts	**0 1 2**

TOTAL SCORE CRITERION 2.2 **Meets:** 5-6 points **| Partially Meets:** 3-4 points **| Does Not Meet:** 0-2 points	

Gateway 2 Points **AVAILABLE**	Gateway 2 Points **ACHIEVED**	**GATEWAY 2 RATING**
38	Sum of points from Criterion 2.1 and 2.2	☐ **Meets** (score of 30-38 points) **PROCEED TO GATEWAY 2** ☐ **Partially Meets** (score of 20-29 points) **PROCEED TO GATEWAY 2** ☐ **Does Not Meet** (score of 0-19 points) **STOP REVIEW**

GATEWAY 3

Usability

Materials help teachers effectively apply the curriculum to understand their students' skills and learning while accommodating all learners. To determine the Gateway rating, educators assess evidence from the instructional materials to score indicators related to each criterion.

- **Criterion 3.1 (3a – 3h): Teacher Supports 16 possible points**
  Materials include resources for teachers to plan and implement lessons with integrity and to develop their professional learning further.

- **Criterion 3.2 (3i – 3l): Assessment 12 possible points**
  Materials include a system of assessments that identify how they provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress toward the standards.

- **Criterion 3.3 (3m – 3s): 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 (3t – 3x): 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 guidance and annotations to help teachers effectively implement lessons and support student engagement and development. (2 points)	• Do materials offer comprehensive, detailed guidance for effectively implementing lessons and engaging students in AP-level content?	• Overview sections, step-by-step annotations, and lesson implementation notes • Strategies for effective content presentation and active student engagement • Guidance for identifying and addressing common student misconceptions or errors	**0 1 2**
3b. Materials provide detailed explanations and examples to deepen the teacher's	• Do materials provide in-depth explanations and examples that extend	• Adult-level explanations clarifying key ideas	**0 1 2**

understanding of complex and advanced content. (2 points)	teachers' understanding of complex or advanced scientific concepts?	• Examples of complex phenomena or advanced applications • Guidance on topics extending beyond the AP course to support teacher expertise	
3c. Materials include suggestions for curriculum-based professional learning that mirrors the student experience and supports both initial and ongoing teacher development. (2 points)	• Do materials include suggestions for initial and ongoing professional learning experiences directly tied to the curriculum? • Do recommendations reflect instructional strategies that mirror the student learning experience?	• Professional learning modules or guides aligned with curriculum content • Opportunities for teacher reflection, practice, and collaboration • Support for both onboarding and continued growth	**0 1 2**
3d. Materials clearly show how content aligns with relevant standards and explain their role across the instructional sequence. (2 points)	• Do materials include comprehensive standards correlation documents showing where and how AP standards are addressed across lessons and units? • Do they explain the role of each standard within the broader instructional sequence?	• Detailed mapping of standards to instructional materials • Documentation of standards progression throughout the program • Explanations of how standards build coherence and support cumulative learning	**0 1 2**
3e. Materials offer tools and strategies to inform students, families, and caregivers about the program and how they can support learning at home. (2 points)	• Do materials provide strategies to inform students, families, and caregivers about the program's structure, expectations, and ways to support learning at home?	• Communication tools such as newsletters, family letters, or digital updates • Multilingual resources for accessibility • Concrete suggestions for how families can support AP-level science learning outside the classroom	**0 1 2**
3f. Materials provide a complete and organized list of required supplies for instructional activities, including print and digital resources. (2 points)	• Do materials provide a complete, organized list of required print, digital, and lab resources needed for instruction?	• Comprehensive supply lists for each lesson, unit, or course • Identification of both consumable and reusable materials • Inclusion of digital platforms, simulations, or other technology requirements	**0 1 2**
3g. Materials include flexible implementation plans, time/resource considerations, and	• Do materials include flexible implementation options accommodating	• Multiple pacing guides or recommended schedules	**0 1 2**

guidance for adapting to different classroom needs. (2 points)	varying schedules, class sizes, and resource availability? • Is guidance provided on time and material trade-offs?	• Breakdowns of required resources with options for different contexts • Suggestions for adapting instruction for classroom needs	
3h. Safety practices are clearly outlined for both teachers and students, aligned with appropriate local and national standards. (2 points)	• Do materials provide explicit safety guidelines for teachers and students? • Are safety practices aligned with relevant safety standards?	• Clear safety guidelines aligned with standards	**0 1 2**
		TOTAL SCORE CRITERION 3.1 **Meets:** 12-16 points **| Partially Meets:** 9-11 points **| Does Not Meet:** 0-8 points	

Criterion 3.2: ASSESSMENTS

INDICATORS OF SUPERIOR QUALITY	GUIDING QUESTIONS	EVIDENCE OF HOW THE MATERIALS	SCORE
3i. Materials clearly show which standards are assessed, ensuring all required standards are covered by year's end. (2 points)	• Do assessment materials explicitly identify which AP or relevant standards are evaluated? • Is there clear evidence that all required content standards are assessed by the end of the year?	• Standards correlation charts mapping assessments to AP standards • Assessment guides indicating which standards are measured in each task • Documentation confirming full standards coverage across the year	**0 1 2**
3j. Materials include multiple formative and summative assessments throughout the year, with clear guidance to help teachers interpret student performance, plan follow-up actions, and consistently understand student learning. (4 points)	• Do materials include a range of formative and summative assessments distributed throughout the year? • Is detailed guidance provided to help teachers interpret results, plan instructional adjustments, and support ongoing student learning? • Are teachers consistently supported in accurately understanding student progress?	• A variety of assessment formats: observations, written tasks, oral responses, models, presentations, portfolios, performance tasks • Sample student responses, scoring rubrics, and annotated exemplars • Clear teacher guidance for analyzing student work, identifying misconceptions, and planning targeted interventions or extensions	**0 2 4**
3k. Assessments allow students to demonstrate grade-level expectations through varied, complex tasks fully. (4 points)	• Do assessments include various modalities, such as writing, modeling, or	• Assessment tasks requiring synthesis, application, or evaluation of scientific concepts	**0 2 4**

	presenting, to allow students to demonstrate mastery fully? • Do tasks effectively assess complex, AP-level expectations rather than surface-level knowledge?	• Modalities such as essays, diagrams, demonstrations, models, and oral presentations • Multiple item types (e.g., constructed responses, debates, projects, portfolios, justified multiple-choice) designed to measure depth of understanding	
3l. Assessments include accommodations that allow students to demonstrate what they know without altering the assessment content. (2 points)	• Do materials provide accommodations enabling students to demonstrate knowledge without altering the content or rigor of assessments? • Is teacher guidance included for implementing accommodations appropriately and equitably?	• Specific accommodations such as extended time, text-to-speech, enlarged print, or alternative response formats • Guidance for teachers on applying accommodations to support all learners • Assurance that accommodations maintain assessment validity and alignment with AP expectations	**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
3m. Materials provide strategies and support to help students consistently and actively engage in learning at the course level or grade level. (2 points)	• Do materials provide clear, specific strategies for differentiating instruction to keep all students actively engaged at AP-level or grade-level expectations? • Are supports included to address a range of learning needs so every student can consistently participate?	• Concrete strategies for differentiation are integrated into lesson plans • Comprehensive scaffolds (e.g., prompts, visual aids, tiered tasks) that promote ongoing engagement • Guidance to ensure sustained participation in challenging AP science content	**0 1 2**
3n. Materials provide extensions and opportunities for students to engage with grade-level or course-level content at higher levels of complexity. (2 points)	• Do materials include intentional, structured opportunities for students to explore grade-level or course-level concepts at higher levels of complexity?	• Enrichment activities fostering higher-order thinking aligned with AP-level depth • Extensions encouraging analysis, synthesis, or evaluation of core concepts	**0 1 2**

	• Are extensions designed to deepen conceptual understanding, not simply add additional work?	• Tasks maintaining alignment with grade-level standards while increasing cognitive demand	
3o. 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)	• Do materials offer multiple, evolving ways for students to engage with and demonstrate their learning? • Are students given opportunities to monitor and reflect on their progress over time?	• Lessons including varied demonstration formats (e.g., models, presentations, lab reports, discussions) • Opportunities for students to articulate their thinking and explain their reasoning • Tools such as self-assessments, checklists, or reflection journals for tracking growth	**0 1 2**
3p. Materials provide opportunities for teachers to use various grouping strategies. (2 points)	• Do materials provide teachers with clear strategies for organizing students into pairs, small groups, and whole-class discussions? • Are grouping formats designed to support meaningful peer interactions and collaborative learning?	• Explicit guidance on flexible grouping (homogeneous, heterogeneous, rotating roles) • Tasks structured for effective collaboration • Support for adapting groups based on student strengths, needs, or tasks	**0 1 2**
3q. Materials provide strategies and support for students who read, write, and/or speak in a language other than English to participate in learning regularly. (2 points)	• Do materials provide effective supports to enable English learners to engage with AP-level content actively? • Is guidance included for distinguishing between language-based difficulties and content-based misunderstandings?	• Strategies targeting the development of disciplinary language skills (listening, speaking, reading, writing) • Supports like sentence frames, glossaries, and visuals connected to AP science content • Teacher guidance for accurately diagnosing and addressing challenges	**0 1 2**
3r. Materials encourage and guide teachers to incorporate students' home languages to support learning (2 points)	• Do materials encourage and support the purposeful use of students' home languages as an asset for learning AP science concepts?	• Strategies leveraging students' home languages for vocabulary development or concept clarification • Emphasis on multilingualism as a strength that supports deeper understanding • Examples of activities or prompts allowing students to make connections in their home language	**0 1 2**

3s. Materials provide support for different reading levels to ensure accessibility for students. (2 points)	• Do materials include supports for students reading below grade-level expectations to access AP science content? • Are lessons adaptable to accommodate a range of reading abilities without compromising rigor?	• Tasks designed with multiple entry points and scaffolding strategies • Alternative representations of content (e.g., visuals, videos, simplified texts) supporting comprehension • Guidance for teachers to modify materials while preserving AP-level complexity	**0 1 2**
TOTAL SCORE CRITERION 3.3 **Meets:** 11-14 points **| Partially Meets:** 8-10 points **| Does Not Meet:** 0-7 points			
Criterion 3.4: INTENTIONAL DESIGN			
INDICATORS OF SUPERIOR QUALITY	**GUIDING QUESTIONS**	**EVIDENCE OF HOW THE MATERIALS**	**SCORE**
3t. Materials use interactive tools, virtual manipulatives, or dynamic software to enhance engagement and support learning goals. (2 points)	• Do materials include engaging, interactive digital tools such as simulations, virtual manipulatives, or dynamic software elements? • Do these tools meaningfully align with and directly support AP science learning goals?	• Interactive simulations, models, or apps integrated into lessons • Digital activities explicitly linked to AP objectives and scientific practices • Technology that actively involves students in exploring or applying concepts	**0 1 2**
3u. Digital components include opportunities for teacher-student, student-student, or teacher-teacher collaboration. (2 points)	• Do digital materials offer opportunities for teacher-student, student-student, or teacher-teacher collaboration? • Are digital collaboration features embedded in ways that enhance AP-level engagement?	• Discussion boards, shared documents, collaborative projects, or feedback tools • Assignments designed for peer-to-peer or teacher-facilitated online collaboration • Digital spaces supporting real-time or asynchronous interaction among users	**0 1 2**
3v. Visual elements (e.g., graphics, models, layout) are organized, relevant, and support understanding without being distracting. (2 points)	• Are visuals—such as graphics, models, charts, and page layouts—organized, purposeful, and free from distractions? • Do they contribute directly to deepening student understanding of complex AP content?	• Consistent, clean, and uncluttered page layouts • High-quality, relevant visuals (e.g., diagrams, photos, animations) supporting key concepts	**0 1 2**

		• Functional navigation tools (e.g., tables of contents, bookmarks, hyperlinks) ensuring ease of use	
3x. Resources include clear instructions for using embedded tech, are compatible with common LMS platforms, browsers, and school devices. (2 points)	• Do materials include clear, accessible instructions for teachers and students on using embedded technology? • Are digital tools compatible with commonly used learning management systems (LMS), browsers, and school devices?	• Step-by-step setup guides, FAQs, or video tutorials for embedded tools • Compatibility statements detailing supported LMS platforms, operating systems, browsers, and devices • Embedded technology guidance included in teacher and administrator resources to ensure smooth implementation	**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**
50	Sum of Criterion 3.1, 3.2, 3.3, and 3.4 points	☐ **Meets** (score of 34-50 points) ☐ **Partially Meets** (score of 26-33 points) ☐ **Does Not Meet** (score of 0-25 points)

TOTAL SCORE (Gateway 1, 2, and 3)			
GATEWAY 1	**GATEWAY 2**	**GATEWAY 3**	**GRAND TOTAL**
of 18 points	**of 38 points**	**of 50 points**	**of 106 points**