

DE Instructional Materials Evaluation for Alignment: Guidelines for Textbook

Subject: McGraw-Hill Education Glencoe High School Science Series – **Chemistry, Physical Science, Physics, Earth Science, and Biology**

Use the following Rubric to Rate each Criteria Indicator

STRONG EVIDENCE (meets 80-100%) = 5; MODERATE EVIDENCE (meets 50 – 79%) = 3; NO EVIDENCE (meets less than 50%) = 0

Section 1: Alignment to Standards – This is a requirement for submission.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	RATING 5, 3, 0	COMMENTS WITH EXAMPLES
<p>(1) ALIGNMENT AND ACCURACY Materials adequately address the <i>Mississippi College- and Career-Readiness Standards (MS CCRS) for Science</i>. Explaining phenomenon and designing solutions drive student learning.</p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>1a) The majority of the <i>MS CCRS for Science</i> performance objectives are incorporated, to the full depth of the standards.</p>		<p>The McGraw-Hill Education (MHE) High School science series is correlated to meet each Next Generation Science Standard (NGSS) performance expectations. The Alignment Guide is available in the online resources for each discipline. Each high school offering allows students to experience the 3 dimensions in an integrated fashion. As the disciplinary core ideas (DCI)s are introduced, students explore the content through various means including performance tasks, applying practices (S&E Practices), inquiry opportunities, Webquests, Case Studies, etc., with the cross cutting concepts embedded and experienced throughout. These activities are incorporated into the teacher planning resources through the online portal www.connected.mcgraw-hill.com</p> <p>McGraw-Hill Education (MHE)'s Biology, Physical Science, Earth Science, Chemistry, and Physics series provides an inquiry strand with a wealth of laboratory options throughout the series. The inquiry-based options offer scientific practice, encouraging problem-solving strategies and developmental critical thinking and process skills. The series' strong inquiry strand gets students actively involved in the learning process by allowing them to manipulate variables and develop and test appropriate procedures. The Student Edition offers coherent lab options within each chapter, which allows students to develop strong inquiry skills. Students will develop a progression of scientific practices that allow them to think like a scientist to become successful with chapter-culminating labs and performance expectations.</p> <p>Examples of NGSS Alignment Guides with Performance Expectations, Disciplinary Core Ideas, Crosscutting Concepts, and Science and Engineering Practices can be found in the following links: https://www.dropbox.com/s/3vriyvqmmqwxg4i/Biology%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/geh4axrywv5n29y/ES%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/fse9a28msduq2i9/PS%20Alignment%20Guide.pdf?dl=0</p> <p>MHE's Biology, Physical Science, Earth Science, Chemistry, and Physics series provides Applying Practices activities and Project-Based Learning (PBL) activities, which appear at point of use and that are correlated to the pertinent DCI and subject content. Each activity is written to a specific NGSS performance expectation using the science and engineering practices. Students will be engaged and successful, integrating the three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting</p>

		<p>concepts. LaunchLabs, MiniLabs, Chapter Labs, Data Analysis Labs, guided and full inquiry activities, and virtual labs further support the science content using science and engineering practices. The projects and activities are supported by the Science and Engineering Practices Handbook online.</p> <p>Students apply the DCIs within the context of application of the science and engineering practices activities in conjunction with crosscutting concepts to conceptualize and then develop a solution to the performance expectation they are facing.</p> <p>MHE’s high school science series is built on the backwards mapping principle and ensures understanding with lessons that stem from Essential Questions, Big Ideas, and Main Ideas, which lead students to identify and connect topics and develop a deeper understanding of practices, disciplinary core ideas, and crosscutting concepts.</p> <p>The structure of the unit and/or lessons within MHE’s high school science series targets a gradual release model of the conceptual framework of the science. Students’ knowledge and understanding build while moving from lesson to lesson. Students are then able to apply practices and concepts to rigorous situations. The ability to meet the performance expectations lies in the deep exposure to the DCIs, while using the practices and the crosscutting concepts. Crosscutting concepts, such as patterns, cause and effect, structure and function, and matter and energy, are found throughout the Applying Practices, the PBLs, the WebQuests, and the inquiry activities.</p> <p>The science and engineering practices are detailed in the Science and Engineering Practices Handbook. Additionally, the practices are integral to the performance expectations that are always presented in the context of the DCIs they relate to. They are not done in isolation from context. A number of the labs also involve engineering practices as students design their investigations and perform analyses.</p> <p>Upon adoption, correlations to the <i>MS CCRS for Science</i> can be provided upon request.</p>
	<p>1b) Observing and explaining phenomenon and designing solutions provide the purpose and opportunity for students to engage in learning.</p>	<p>MHE’s Biology, Physical Science, Earth Science, Chemistry, and Physics series provides Applying Practices activities and Project-Based Learning (PBL) activities, which appear at point of use and that are correlated to the pertinent DCI and subject content. Each activity is written to a specific NGSS performance expectation using the science and engineering practices. Students will be engaged and successful, integrating the three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting concepts. LaunchLabs, MiniLabs, Chapter Labs, Data Analysis Labs, guided and full inquiry activities, and virtual labs further support the science content using science and engineering practices. The projects and activities are supported by the Science and Engineering Practices Handbook online.</p> <p>Students apply the DCIs within the context of application of the science and engineering practices activities in conjunction with crosscutting concepts to conceptualize and then develop a solution to the performance expectation they are facing.</p>

		<p>MHE’s high school science series is built on the backwards mapping principle and ensures understanding with lessons that stem from Essential Questions, Big Ideas, and Main Ideas, which lead students to identify and connect topics and develop a deeper understanding of practices, disciplinary core ideas, and crosscutting concepts.</p> <p>Students produce tangible outcomes for Applying Practices activities, PBL projects, and student inquiry activities. The performance tasks, applying practices, and lab activities help students demonstrate their three-dimensional learning by constructing explanations based on the application of the cross cutting concepts and the science and engineering practices focused on phenomenon targeting on the learning outcomes and the DCIs.</p> <p>A summative evaluation is provided by the Chapter Assessment at the end of each chapter. It includes Vocabulary Review, Understand Key Concepts and Constructed Response. Think Critically and Writing in Science sections require students to demonstrate higher-order thinking and use their writing skills. The cumulative Standardized Test Practice, which includes Extended Response and Essay Questions, aids students in mastering skills to be successful on local, state, and/or national tests. If students have problems with a standardized test question, a prescriptive guide is available to direct students to review specific lessons for remediation. MHE’s eAssessment allows teachers to give online formative and summative assessments and easily generate data to inform their lessons as well as modify instruction for particular students. Teachers are given the necessary tools to guide instructional decision at every point. Teachers can pull questions based on the NGSS and evaluate students on the DCI’s, which incorporate both science and engineering practices and crosscutting concepts.</p> <p>Rubrics are provided online for PBL projects, Applying Practices activities, and labs to evaluate progress on three-dimensional learning.</p> <p>The opportunities for assessment represent a range of assessment recognized in the Understanding by Design Continuum, including informal, formative, performance expectations, summative, written, and practical. These various methods of assessment are accessible and unbiased for all students.</p> <p>MHE’s high school science series has a broad range of opportunities to demonstrate understanding of DCI’s, the practices, and Crosscutting Concepts, as well as utilize mathematics and literacy skills. Teachers have the options of:</p> <ul style="list-style-type: none">• eAssessment with a variety of questions types• Online Self-Check Quizzes• LearnSmart Adaptive Learning System• Multiple inquiry activities that can be used as performance tasks• Project-Based Learning activities• Applying Practices activities
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		<ul style="list-style-type: none"> • Webquests • And others <p>All of these provide the student the opportunity to demonstrate the application and understanding of the practices within the context of the DCIs and the crosscutting concepts.</p>
	1c) Science content is accurate , reflecting the most current and widely accepted explanations and research.	<p>McGraw-Hill Education and McGraw-Hill School Education, LLC, are committed to publishing pedagogically sound, high-quality, educational material that is fair, unbiased, and that recognizes the unique contributions of people of all races, cultures, and faiths. To ensure that our textbooks meet these high standards, all textbooks are authored by scholars and educators who are recognized experts in their areas of specialty. McGraw-Hill School Education, LLC also submits manuscripts to independent scholars and teachers for their review. To reach consensus on information with divergent interpretations, the recommendations of these educators and specialists are reviewed and discussed among the author and Academic Designers until final consensus is negotiated; changes are then incorporated into the manuscript to ensure that the materials are accurate and unbiased, present the materials in an age-appropriate and meaningful manner, and reflect the most current research in the subject area.</p>
	1d) Engineering Design Processes are addressed especially in grades K-8.	<p>The Scientific and Engineering Practices Handbook provides the basis for understanding the practices and contains examples of how the S&E practices can be integrated into the classroom. The applying practices activities and the PBL's were meant to involve students in using the S&E practices to solve problems. They help students integrate those problems as well. All of these activities are open where students make choice sand design solutions. The chapter labs within the text also contain a number of design your own labs. The Applying Practices and Project-Based Learning activities are found at point of use within the Plan and Present Tab of the online teacher resources.</p> <p>Students participate in grade-level appropriate science discourse and scientific writing using grade level academic vocabulary in several settings. These include class discussions initiated from activities and teacher demonstrations, during lab reports, Applying Practices activities, WebQuests, and PBLs, in chapter review critical thinking responses, Document-Based Questions, Short Answer, Extended Response, and Essay Questions, and in Writing in science. Vocabulary margin features—Academic Vocabulary, Word Origin, and Science Usage v. Common Usage—also support scientific writing and discourse.</p>
(2) THREE-DIMENSIONAL LEARNING Students have multiple opportunities throughout each unit to develop an understanding and demonstrate	2a) Materials include and emphasize the science and engineering practices and crosscutting	<p>MHE's Biology, Physical Science, Earth Science, Chemistry, and Physics series provides Applying Practices activities and Project-Based Learning (PBL) activities, which appear at point of use and that are correlated to the pertinent DCI and subject content. Each activity is written to a specific NGSS performance expectation using the science and engineering practices. Students will be engaged and successful, integrating the three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting concepts. LaunchLabs, MiniLabs, Chapter Labs, Data Analysis Labs, guided and full inquiry activities, and virtual labs further support the science content using science and engineering</p>

<p>application of the three dimensions.</p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>concepts that integrate into the disciplinary core ideas for the <i>MS CCRS for Science</i>.</p>	<p>practices. The projects and activities are supported by the Science and Engineering Practices Handbook online.</p> <p>Students apply the DCIs within the context of application of the science and engineering practices activities in conjunction with crosscutting concepts to conceptualize and then develop a solution to the performance expectation they are facing.</p> <p>MHE’s high school science series is built on the backwards mapping principle and ensures understanding with lessons that stem from Essential Questions, Big Ideas, and Main Ideas, which lead students to identify and connect topics and develop a deeper understanding of practices, disciplinary core ideas, and crosscutting concepts.</p> <p>“Reading Checks” are formative assessment questions integrated within the lesson for students to self-assess their reading comprehension before going onto the next lesson. The “Section Assessment” in the Student Edition provides students with summary statements and scaffold questions that tie to the learning objectives for that section. A summative evaluation is provided by the “Chapter Assessment” at the end of each chapter. It includes Vocabulary Review, Understand Key Concepts and Constructed Response which assess comprehension of the vocabulary and key concepts in each section. Think Critically, Writing in Biology, Extended Response and Essay Questions sections require students to demonstrate higher-order thinking and use their writing skills. Skill Review questions connect students to real-world applications as they evaluate real data from current research. Students analyze graphs, charts, and other displays of data. Cumulative Review questions assess student retention of material from earlier chapters. Standardized Test Practice aids students in mastering skills to be successful on local, state, and/or national tests. If students have problems with a standardized text question, a prescriptive guide is available to direct students to review specific lessons for remediation.</p> <p>The eAssessment program on ConnectED allows teachers to build summative assessment that can be customized for each lesson of the student edition. ConnectED includes formative and summative assessments, and the chapter test assessments are provided in three levels to support differentiated instruction. These assessments are included in the Plan and Present area of the Teacher Center on ConnectED, along with ways to identify student misconceptions. At the end of lessons and chapter students have additional formative and summative self-assessment practice. Students can email online assessment results to teachers and parents. Additionally, there are numerous resources that provide practice, enrichment, and remediation support for every lesson.</p> <p>LearnSmart is an interactive and adaptive version of the book with continual assessment and metacognitive tools to help teachers and students know what the student has mastered and what the student needs to focus on.</p>
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	<p>2b) There is variability in the tasks that students are asked to accomplish. The material requires students to apply and demonstrate their understanding in multiple ways.</p>		<p>MHE’s high school science series has a broad range of assessment opportunities that give both the student and the teacher a variety of ways to demonstrate their understanding of DCI’s, Practices and Crosscutting Concepts.</p> <p>Teachers have the options of:</p> <ul style="list-style-type: none"> • eAssessment with a variety of questions types • Multiple Inquiry Activities that can be used as performance tasks • Performance Tasks • Applying Practices Activities • LearnSmart • Self-Check Quizzes • Webquests • And others <p>Online assignments are not limited to assessments. You can allow your students to practice by giving them multiple attempts at the assignment. You can also choose to allow students to see the right answer to each question or to receive feedback from each question. The system can also lock down the assignment with time restrictions.</p>
<p>(3) DISCIPLINARY LITERACY Materials have students engage with authentic sources and incorporate reading, writing, and communication skills to develop scientific literacy.</p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>3a) Materials provide a coherent sequence of authentic science sources that build scientific vocabulary and knowledge over the course of study. Vocabulary is addressed as needed in the materials but not taught in isolation of deeper scientific learning.</p>		<p>MHE’s high school science series is built on the backwards mapping principle and ensures understanding with lessons that stem from Essential Questions, Big Ideas, and Main Ideas, which lead students to identify and connect topics and develop a deeper understanding of practices, disciplinary core ideas, and crosscutting concepts.</p> <p>The structure of the unit and/or lessons within MHE’s high school science series targets a gradual release model of the conceptual framework of the science. Students’ knowledge and understanding build while moving from lesson to lesson.</p> <p>The science and engineering practices are integral to the performance expectations that are always presented in the context of the DCIs they relate to. They are not done in isolation from context. A number of the labs also involve engineering practices as students design their investigations and perform analyses. The combination of Applying Practices activities, PBL projects, WebQuests, and inquiry activities, provides students with multiple opportunities to experience relevant phenomena in both representation format and in firsthand experience. Within the lessons, Data Analysis Labs present results from research offered in scientific literature to bring scientists doing science to the classroom. These activities engage students in phenomenon from various disciplines and involve them in three-dimensional learning. Students utilize science and engineering practices to make choices, design investigations, make models, analyze data and draw conclusions as they move toward a solution in real-life relevant scenarios. These opportunities allow students to make connections to the world they live in as they develop crucial problem-solving and critical thinking skills.</p>

		<p>The cross-cutting concepts are found within the applying practices, the performance tasks, the WebQuests and many of the inquiry exercises and are experienced throughout lessons.</p> <p>The performance expectations are always presented in the context of the DCI they relate to. The engineering design loop is used in many of the activities but are not isolated from context. A number of the labs also contain engineering practices as students design their labs.</p> <p>Examples of NGSS Alignment Guides with Performance Expectations, Disciplinary Core Ideas, Crosscutting Concepts, and Science and Engineering Practices can be found in the following links: https://www.dropbox.com/s/3vriyvqmmqwg4i/Biology%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/geh4axrywv5n29y/ES%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/fse9a28msduq2i9/PS%20Alignment%20Guide.pdf?dl=0</p> <p>Vertical alignment of science concepts is inherent in the NGSS, allowing students a progression in understanding of key concepts. Student activities and questions throughout MHE’s high school science series provide opportunities for identifying gaps in prior knowledge and building on it in all three dimensions. The Launch Lab at the beginning of each chapter provides structured inquiry into the content of the chapter and allows students to apply what they have already learned.</p> <p>With LearnSmart, an interactive version of the textbook with an adaptive engine and continual assessment and metacognitive tools to help teachers and students know what the student has mastered and what the student needs to focus on, learning occurs progressively at each students’ individual pace.</p> <p>Continuous formative assessments in the Student and Teacher Editions allow students to track progress toward deeper understanding and adjust instruction.</p> <p>MHE’s high school science series provides connections to the other science disciplines as well as to other curricular areas such as Math, Language Arts, & Social Studies. Throughout the student edition, there is liberal use of graphs, tables & charts for students to interpret, math problems to work out, and cross-curricular connections. In the Teacher Wraparound Edition, teachers are supplied with strategies for supporting math, and opportunities to make cross-curricular connections.</p>
	<p>3b) Materials address the necessity of using scientific evidence to support scientific ideas.</p>	<p>All of the activities, Applying Practices, Webquests, Inquiry Activities, contain detailed plans allowing teachers the freedom to give the level of support that student need to remain engaged in lesson concepts. The teacher then controls the amount of support and helps students become more independent so they can draw their own conclusions and learn to cite evidence and make strong arguments to support the solutions to their problems so students can take ownership of their learning and understanding of science.</p>

			<p>Through the inquiry activities found in MHE’s high school science series, students are asked to define the problem, form a hypothesis, and design an experiment to test their idea. Once they have their data, they will modify the experiment’s design to remove uncertainties so they achieve clearer results. The text has special end of chapter features that provide the students with relevant information that builds on their personal experiences. The high interest special features in each chapter make a connection with some aspect of students’ everyday lives and society at large. Students are provided with opportunities to evaluate and write about the impact of human endeavors on their world. This allows students to remain focused on the concepts that they are learning because they see how science impacts all aspects of life.</p> <p>The high school science series provides a variety of labs that further students’ opportunities to engage in inquiry experiments that support understanding of major concepts. The Virtual Labs provide interactive manipulations of variables that support engineering design principles. The Video Lab online helps students with reviewing selected lab procedures. ConnectED offers students access to inquiry activities, the virtual labs, WebQuest research activities, and a look at careers in different science disciplines.</p>
CRITERIA	INDICATORS OF SUPERIOR QUALITY	RATING 5, 3, 0	COMMENTS WITH EXAMPLES
	<p>3c) Students are offered connections with authentic sources that represent the language and style that is used and produced by scientists. Examples could include journal excerpts, authentic data, photographs, sections of lab reports, and media releases of current science research. Frequency of</p>		<p>The combination of applying practices, WebQuests, and inquiry activities provide students with multiple opportunities to experience relevant phenomena in both representation format and in firsthand experience. The problems are connected to their world. They have to make choices, analyze data and draw conclusions as they move toward a solution.</p> <p>Each of the Project-Based Learning activities, inquiry activities, WebQuests, and applying practices activities not only have students designing solutions, but also are set in a real life relevant scenario and ask students to make connections to the world they live in. These activities are found in the plan and present tab and the resources tab within the online teacher center.</p> <p>Student activities and questions provide opportunities for ongoing assessment and remediation. The Launch Lab is an entry-level guided inquiry activity that applies students’ prior knowledge at the beginning of a chapter. In the Teacher Edition, the Clarify a Misconception feature provides diagnostic assessment and remediation strategies. Formative assessment strategies are provided in the margins of the Teacher Edition. This Teacher Edition provides Assessment checks—an evaluation of key section concepts and an activity to re-teach students who are struggling to meet the learning objective. Each of these activities give students the opportunity to experience meaningful real-world phenomena</p> <p>Students produce tangible outcomes for Applying Practices activities, PBL projects, and student inquiry activities. The performance tasks, applying practices, and lab activities help students demonstrate their three-dimensional learning in real-world science scenarios by</p>

	<p>engagement with authentic sources should increase in higher grade levels and courses.</p>	<p>constructing explanations based on the application of the cross cutting concepts and the science and engineering practices focused on phenomenon targeting on the learning outcomes and the DCIs.</p> <p>Each chapter and lesson begins with essential questions that focus student learning. Each lesson includes the beginning real world reading link such as Earth Science 4 You and Chem 4 You and Real World Reading Link. The inclusion of real world relevance motivates students to explore the impact of science on the world.</p> <p>The combination of applying practices, STEMquests, WebQuests, and inquiry activities provide students with multiple opportunities to experience relevant, real-world phenomena in both representation format and in firsthand experience. The problems are connected to their world and they have to make choices, analyze data and draw conclusions as they move toward a solution.</p> <p>Each of the Project-Based Learning activities, inquiry activities, WebQuests, STEMquests and applying practices activities not only have students designing solutions, but also are set in a real life relevant scenario and as students to make connections to the world they live in. These activities are found in the plan and present tab and the resources tab within the online teacher center in ConnectED.</p>
	<p>3d) Students have the opportunity to regularly engage in speaking and writing about scientific phenomena and engineering solutions.</p>	<p>MHE’s high school science series uses inquiry-based learning opportunities where students participate in science discourse in and outside the classroom environment. Multiple lab opportunities such as Demo Labs, Launch Lab, Mini Labs, Data Analysis Labs, GeoLabs and virtual labs provides students with opportunities to collaborate and communicate findings.</p> <p>Students participate in grade-level appropriate science discourse and scientific writing using academic vocabulary in several settings. These include class discussions initiated from activities and teacher demonstrations, during lab reports, Applying Practices activities, WebQuests, and PBLs, in chapter review critical thinking responses, Short Answer, Extended Response, and Essay Questions, Vocabulary margin features—Academic Vocabulary, Word Origin, and Science Usage v. Common Usage—also support scientific writing and discourse.</p> <p>The ConnectED digital platform for high school science brings a new level of engagement and effectiveness to your classroom. A one-stop shop where you can access the student eBook, digital resources, videos, worksheets, presentations, assessment tools, and planning and messaging tools. ConnectED contains many opportunities for students to engage in scientific discourse.</p> <p>Through the inquiry activities found in MHE’s high school series, students are asked to define the problem, form a hypothesis, and design an experiment to test their idea. Once they have their data, they are asked to modify the experiment’s design to remove uncertainties so they achieve clearer results. The textbooks have special features at the end of each chapter that describe how new technologies impact people’s life. Students are provided with opportunities to evaluate and write about the impact of human endeavors on their</p>

		<p>world.</p> <p>The series provides a variety of labs that further students' opportunities to engage in inquiry experiments that support understanding of major concepts. The Virtual Lab series provides interactive manipulations of variables that support engineering design principles. The Video Labs online help students with reviewing selected lab procedures. ConnectED gives students access to the virtual labs and WebQuest research projects.</p> <p>The MHE high school science series provides the students with relevant information that builds on their personal experiences. The high interest special features in each chapter make a connection with some aspect of students' everyday life and society at large. Activities such as "Debate in Biology," "Careers in Chemistry," and "Frontiers in Physics" gives students the opportunity to view science outside of the classroom and to write critically about science and encourage intellectual discourse in the classroom about science.</p> <p>LearnSmart is an online, interactive version of the textbook with adaptive, continual assessment and metacognitive tools to help teachers and students know what the student has mastered and what the student needs to focus on. LearnSmart helps students retain the foundational concepts in science so they can extend these concepts to engage in scientific discourse in the classroom.</p> <p>Foldables™ created by Dinah Zike provide research-based methods to organizing information for effective study and retention of content and to utilize in intellectual scientific discourse in the classroom. The textbook encourages all learners to utilize the "Concepts-in-Motion" animations associated with selected images, tables, and timelines as an alternative format to acquired information. There are online electronic lessons in "Personal Tutors" that provide enhanced audio/visual concept presentations.</p>
<p>(4) LEARNING PROGRESSIONS Materials are coherent and provide natural connections from the disciplinary core ideas to other performance expectations including science and engineering practices, crosscutting concepts, engineering design processes, and compliments the major mathematics</p>	<p>4a) The overall organization of the materials and the development of content skills and practices are coherent and support student mastery of the standards. The progression of learning is organized in a deliberate fashion</p>	<p>MHE's high school science series is built on the backwards mapping principle and ensures understanding with lessons that stem from Essential Questions, Big Ideas, and Main Ideas, which lead students to identify and connect topics and develop a deeper understanding of practices, disciplinary core ideas, and crosscutting concepts.</p> <p>The structure of the unit and/or lessons within MHE's high school science series targets a gradual release model of the conceptual framework of the science. Students' knowledge and understanding build while moving from lesson to lesson. Students are then able to apply practices and concepts to rigorous situations. Students meet the performance expectations with deep exposure to the DCIs, while using the practices and the crosscutting concepts. Crosscutting concepts, such as patterns, cause and effect, structure and function, and matter and energy, are found throughout the Applying Practices, the PBLs, the WebQuests, and the inquiry activities.</p> <p>The science and engineering practices are detailed in the Science and Engineering Practices Handbook. These practices are integral to the performance expectations that are always presented in the context of the DCIs they relate to. They are not done in isolation from</p>

<p>concepts from the <i>MS CCRS for Math</i>.</p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>to promote student understanding.</p>		<p>context. A number of the labs also involve engineering practices as students design their investigations and perform analyses. The combination of Applying Practices activities, PBL projects, WebQuests, and inquiry activities, provides students with multiple opportunities to experience relevant phenomena in both representation format and in firsthand experience. Within the lessons, Data Analysis Labs present results from research offered in scientific literature to bring scientists doing science to the classroom. These activities engage students in phenomenon from various disciplines and involve them in three-dimensional learning. Students utilize science and engineering practices to make choices, design investigations, make models, analyze data and draw conclusions as they move toward a solution in real-life relevant scenarios. These opportunities allow students to make connections to the world they live in as they develop crucial problem-solving and critical thinking skills.</p> <p>Examples of NGSS Alignment Guides with Performance Expectations, Disciplinary Core Ideas, Crosscutting Concepts, and Science and Engineering Practices can be found in the following links: https://www.dropbox.com/s/3vriyvqmmqwg4i/Biology%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/geh4axrywv5n29y/ES%20Alignment%20Guide.pdf?dl=0 https://www.dropbox.com/s/fse9a28msduq2i9/PS%20Alignment%20Guide.pdf?dl=0</p>
	<p>4b) Materials are presented in an engaging context that are related to real world experiences and situations.</p>		<p>All of the activities, Applying Practices, Webquests, Inquiry Activities, contain detailed plans allowing teachers the freedom to give the level of support that student need to remain engaged in lesson concepts. The teacher then controls the amount of support and helps students become more independent so they can draw their own conclusions and learn to cite evidence and make strong arguments to support the solutions to their problems so students can take ownership of their learning and understanding of science.</p> <p>Through the inquiry activities found in MHE’s high school science series, students are asked to define the problem, form a hypothesis, and design an experiment to test their idea. Once they have their data, they will modify the experiment’s design to remove uncertainties so they achieve clearer results. The text has special end of chapter features that provide the students with relevant information that builds on their personal experiences. The high interest special features in each chapter make a connection with some aspect of students’ everyday lives and society at large. Students are provided with opportunities to evaluate and write about the impact of human endeavors on their world. This allows students to remain focused on the concepts that they are learning because they see how science impacts all aspects of life.</p> <p>The high school science series provides a variety of labs that further students’ opportunities to engage in inquiry experiments that support understanding of major concepts. The Virtual Labs provide interactive manipulations of variables that support engineering design principles. The Video Lab online helps students with reviewing selected lab procedures. ConnectED offers students access to inquiry activities, the virtual labs, WebQuest research activities, and a look at careers in different science disciplines.</p>

			<p>Reading Essentials, in Biology and Physical Science, for struggling readers in both English and Spanish, provides the content at an accommodated reading level. The Science Notebook, found in each title of MHE's high school science series, guides students in making meaningful connections with the text through Cornell note-taking. Graphic organizers called Foldables are also available, as well as interactive dissections, Vocabulary eFlashcards and eGames in English and Spanish, minigames, and videos and animations including VIVED's Cyber Science 3D models. These online 3D models offer alternative presentations of concepts in an interactive medium which will allow students to see science concepts in new and engaging ways. Students can zoom in, peel and see how elements change in various systems ranging from the human cell to the periodic table, animals, molecules, planets and engines.</p> <p>The series also offers alternative presentations of concepts through various media to ensure that all learners have the opportunity to understand concepts. The Student Edition is not only in print format, but is available online using any browser or available for offline download on app-enabled devices such as iPads, Chromebooks, and smart phones using the ConnectED mobile app. Using ConnectED, teachers and students will have access to resources such as Concepts in Motion animations, interactive tables, student worksheets, LearnSmart, assignments, a Collaboration function that can be completely moderated by a teacher to ensure safe and appropriate communication and additional practice and review. Virtual Labs and Interactive Dissections allow students to explore concepts through lab simulations. Students can also use these engaging tools for practice and review. With Foldables, three-dimensional, interactive, graphic organizers, students have an interactive instrument to organize information. Reading Essentials, a leveled version of the text in English and Spanish, provides all of the same content of the Student Edition at a lower reading level for Biology and Physical Science students. The Science Notebook then provide students with varied activities in Cornell Note style that encourage them to put concepts into their own words and interact with them at a higher level to reinforce understanding.</p>
	<p>4c) Students apply mathematical thinking when applicable. The math skills are appropriate for the grade level of the students.</p>		<p>Students are provided numerous supports for their engagement in labs, activities, and projects. The Science and Engineering Practices Handbook available online in ConnectED introduces the practices and well as scientific methods and the engineering design process. Additional background on the nature of science, hypotheses, scientific theories, and scientific laws can be found in chapter 1 of the Student Edition. In the back of the Student Edition, the Investigation and Experimentation appendix and the Skillbuilder Handbook, which includes Problem-Solving Skills and Math Skills, serve as further reinforcement and help build independence. The labs, activities, and projects lie along a spectrum from traditional hands-on teacher-controlled to fully student-controlled, making students increasingly responsible for their investigations and solutions.</p>

TOTAL SCORE (PART 1)			
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Section 2: Instructional Support, Usability, and Assessment

CRITERIA	INDICATORS OF SUPERIOR QUALITY	RATING 5, 3, 0	COMMENTS WITH EXAMPLES
<p>(5) SCAFFOLDING AND SUPPORT Materials provide teachers with guidance to build their own knowledge and to give all students extensive opportunities and support to explore key concepts using multiple, varied experience to build scientific thinking.</p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>5a) There are separate teacher support materials to assist teachers:</p> <ul style="list-style-type: none"> • Organize and sequence effective learning experiences for students; • Utilize instructional materials to develop a variety of effective teaching strategies for student learning; • Utilize teacher’s use of science and engineering practices, inquiry, and cross-cutting 		<p>MHE’s High School Science offers a Teacher Edition, in both print and online, full of research-based strategies for Writing Support, Differentiated Instruction, Critical Thinking, Demonstration, Content Background, Clarify Misconceptions, and Formative Assessments.</p> <p>The Teacher Edition teaching strategies and activities have been coded for ability-level appropriateness. A competency level is given for each activity using the following code: AL activities for students working above grade level; OL on grade level; BL below grade level; EL activities for English learners.</p> <p>The Teacher Edition Chapter Organizer planning pages appear at the beginning of each chapter. These pages detail all Essential Questions, lab materials, suggested pacing, ancillaries, and online resources for the chapter. The planning pages also show the leveling key which describes the differentiated instruction used in the chapter.</p> <p>Reading Essentials, for struggling readers in both English and Spanish, provides the content at an accommodated level. Science Notebook guides students in making meaningful connections with the text through Cornell note-taking. Graphic organizers called Foldables are also available, as well as interactive dissections, Vocabulary eFlashcards and eGames in English and Spanish, mini-games, and videos and animations. All of these resources can be used with EL students who need alternative strategies for reading and comprehending the text.</p> <p>The Glossary/Glossario in the Student Edition, as well as the Multilingual Science Glossary online, provides vocabulary support for EL students. In addition, vocabulary margin features—Word Origins, Academic Vocabulary, and Science Usage v. Common Usage—support all readers.</p> <p>All of these resources provide the teacher with the ability to reach each student or groups of students with resource that support or help students explore new phenomenon in extension activities.</p>

	<p>concepts within the disciplinary core ideas; and</p> <ul style="list-style-type: none">• Incorporate reading, writing, and mathematical practices into lessons where appropriate. <p>These instructional support documents support the work teachers do by providing:</p> <ul style="list-style-type: none">• Pertinent content background information;• Examples of student misconceptions;• Resources to assist and enhance instruction (electronic, web-based, software, etc.)• Materials and equipment needed along with		
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	<p>maintenance and safe use.</p> <ul style="list-style-type: none"> • Technical support for the use of multi-media, equipment and technology resources. 		
	<p>5b) Appropriate suggestions and materials are provided for differentiated instruction supporting varying student needs at the unit and lesson level (e.g., alternative teaching approaches, pacing, instructional delivery options, suggestions for addressing comment student difficulties to meet standards, etc.).</p>		<p>MHE’s high school series offers Reading Essentials, in both English and Spanish, for struggling readers. This provides the content at an accommodated level. All of the high school texts offer a Science Notebook, which guides students to make meaningful connections with the text through note-taking. Graphic organizers are also available, as well as interactive dissections, vocabulary eGames and eFlashcards, and videos and animations. All of these resources can be used with ELL or SPED students who need alternative strategies for reading and comprehending the text.</p> <p>“Reading Checks” are formative assessment questions integrated within the lesson for students to self-assess their reading comprehension before going onto the next lesson. The “Section Assessment” in the Student Edition provides students with summary statements and scaffold questions that tie to the learning objectives for that section. A summative evaluation is provided by the “Chapter Assessment” at the end of each chapter. It includes Vocabulary Review, Understand Key Concepts and Constructed Response which assess comprehension of the vocabulary and key concepts in each section. Think Critically, Writing in Biology, Physical Science, Earth or Physics, Extended Response and Essay Questions sections require students to demonstrate higher-order thinking and use their writing skills. Skill Review questions connect students to real-world applications as they evaluate real data from current research. Students analyze graphs, charts, and other displays of data. Cumulative Review questions assess student retention of material from earlier chapters. Standardized Test Practice aids students in mastering skills to be successful on local, state, and/or national tests. If students have problems with a standardized text question, a prescriptive guide is available to direct students to review specific lessons for remediation.</p> <p>The eAssessment program on ConnectED allows teachers to build summative assessment that can be customized for each lesson of the student edition. ConnectED’s Plan and Present software includes formative and summative assessment. The Unit (Fast Files) resources booklets include formative assessment for each section of the text. Plus, the “Chapter Test” assessment is provided in three levels to support differentiated instruction. The program’s web site provides students additional formative and summative self-assessment practice. Students can email online assessment results to teachers and parents.</p>

		<p>The Teacher Wraparound Edition has teaching strategies and activities that have been coded for ability-level appropriateness. A competency level is given for each activity using the following code: AL activities for students working above grade level; OL on grade level; BL below grade level; EL activities for English learners. Along the margins of the Teacher Wraparound Edition, you will find answers to student edition questions, activities that address key concepts, additional background information for the teacher, and differentiated instruction strategies that help meet the needs of all students.</p> <p>The Teacher Wraparound Edition “Chapter Organizer” planning pages appear at the beginning of each chapter. These teacher pages detail all section objectives, standards covered, and materials needed to teach the chapter. On the planning pages, there is a suggested lesson pacing guide as well as a resource list of the lab materials, ancillaries, and technology resources available for that chapter. The planning pages also show the leveling key which describes the differentiated instruction used in the chapter.</p>
	<p>5c) Instructional materials are accessible to students including</p> <ul style="list-style-type: none"> • Varied learning ability/disabilities; • Special needs (e.g., auditory, visual, physical, speech, emotional); • English language proficiency; • Cultural differences; • Different learning styles; and • Gender. 	<p>At McGraw-Hill Education, we have a commitment to providing academically and educationally sound content. As part of MHE’s commitment to continuous improvement and producing the highest-quality materials that are academically and educationally sound, we regularly employ standardized processes before, during, and after product development to maintain academic integrity.</p> <p>McGraw-Hill Education programs are systematically developed over the course of years, using specific protocols to align to the requested national, state and local curriculum standards and learning objectives, including those relevant to diversity, equity, and inclusion, processes to validate and differentiate the pedagogy based on research, as well as processes to engage a range of expert authors, consultants, content reviewers, teacher reviewers, and curriculum advisers.</p> <p>In addition, the development and maintenance process includes opportunities to validate and update content based on academic scholarship across disciplines throughout the life cycle of our products. We take our responsibility to engage with you as partners seriously. As such, the McGraw-Hill Education model and processes demonstrate our commitment to responsive partnerships, and our academic integrity principles guide us to engage in honest, transparent, and purpose-driven discussions with you about learning.</p> <p>We at McGraw-Hill Education are committed to developing products that can be accessed and used by any and all learners, including those with disabilities, and have created a culture that considers those with differing learning and access needs from the outset. This effort includes a comprehensive strategy that combines planning, research, training, and product development activities with both McGraw-Hill employees and third-party content partners. We continue to strive to meet the WCAG 2.0 accessibility guidelines at level AA, as well as the Section 508 Amendment to the Rehabilitation Act of 1973. For more information about McGraw-Hill’s steps toward making all materials accessible for students, please see: https://www.mheducation.com/about/accessibility.html</p>

			<p>At McGraw-Hill Education, we strive to provide accurate, credible, and relevant services, programs, and support, and we have the honor and privilege of providing instructional materials that empower great teaching.</p> <p>Thank you for your dedication to the success of learners. We appreciate your engagement directly with our team, and please reach out to our MHE team as your governance process allows, should you believe additional context will be helpful.</p>
CRITERIA	INDICATORS OF SUPERIOR QUALITY	RATING 5, 3, 0	COMMENTS WITH EXAMPLES
<p>(6) USABILITY Materials are easy to use, promote safety in the science classroom, and are viable for implementation given the length of a school year. The information is organized logically and presented clearly using multiple methods</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>6a) The text provides clearly stated objectives for each lesson. It uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, grade appropriate type size, color) to enhance readability.</p>		<p>Text features used in MHE’s high school series help students make connections between the content presented and their understanding of it by responding to targeted prompts. These features also provide a format for summing up learning prior to the lesson review. In addition, lesson assessments check understanding at the close of each lesson. On-line assessments provide further support in the form of lesson quizzes.</p>
	<p>6b) Materials help students build an understanding of standard operating procedures in a science laboratory and include safety guidelines, procedures, and equipment. Science classroom and laboratory safety guidelines are</p>		<p>Safety issues are clearly indicated in the student materials and provide simple and easy-to-understand practices/steps the students can follow to make sure no one is injured during activities and labs. Each title in MHE’s high school science series provides students with a foundation of safety procedures that will be used throughout the course.</p>

	embedded in the materials.		
	6c) The total amount of content is viable for a school year.		Yes, the total amount of content is viable for a school year.
	6d) The text incorporates a glossary, footnotes, recordings, pictures, and/or other features that aid students and teachers in using the book effectively.		MHE's high school series incorporates a user-friendly table of contents, glossary, and index, images, etc which aid in effective use of the materials.
	6e) The text and supplemental materials employs a variety of reading levels and is grade/level appropriate .		<p>MHE's Biology, Physical Science, Earth Science, Chemistry, and Physics series offers a Teacher Edition print and online full of research-based strategies to support and differentiate instruction, including developing concepts, reading strategies, skills practice, writing support, differentiated instruction, critical thinking, demonstration, content background, clarifying misconceptions, and formative assessments.</p> <p>The Teacher Edition teaching strategies and activities have been coded for ability-level appropriateness. A competency level is given for each activity using the following code: AL activities for students working above grade level; OL on grade level; BL below grade level; EL activities for English learners.</p> <p>The Teacher Edition Chapter Organizer planning pages appear at the beginning of each chapter. These pages detail all Essential Questions, lab materials, suggested pacing, ancillaries, and online resources for the chapter. The planning pages also show the leveling key which describes the differentiated instruction used in the chapter.</p> <p>Reading Essentials, in Biology and Physical Science, for struggling readers in both English and Spanish, provides the content at an accommodated reading level. The Science Notebook, found in each title of MHE's high school science series, guides students in making meaningful connections with the text through Cornell note-taking. Graphic organizers called Foldables are also available, as well as interactive dissections, Vocabulary eFlashcards and eGames in English and Spanish, minigames, and videos and animations including VIVED's Cyber Science 3D models. All of these resources can be used with EL and SPED students who need alternative strategies for reading and comprehending the text.</p> <p>The Glossary/Glossario in the Student Edition, as well as the Multilingual Science Glossary online, provides vocabulary support for EL students. In addition, vocabulary margin features—Word Origins, Academic Vocabulary, and Science Usage v. Common Usage—</p>

		<p>support all readers in understanding scientific terminology in context. The real-world reading link that introduces each lesson relates the upcoming text and science content to the student, the student's world, or previous knowledge. Each Chapter Assessment includes Vocabulary Review to further enhance acquisition of science vocabulary and increase comprehension for students at all levels.</p> <p>Rich visuals with caption questions, Reading Checks and Section Assessments provide formative assessment and student metacognition integrated within the lesson and Constructed Response which assess comprehension of the vocabulary and key concepts in each section. Think Critically, Writing in Science, Extended Response and Essay Questions sections require students to demonstrate higher-order thinking and use their writing skills. Skill Review questions connect students to real-world applications as they evaluate real data from research. Students analyze graphs, charts, and other displays of data. Cumulative Review questions assess student retention of material from earlier chapters. Standardized Test Practice aids students in mastering skills to be successful on local, state, and/or national tests. If students have problems with a standardized text question, a prescriptive guide is available to direct students to review specific lessons for remediation.</p> <p>The eAssessment program on ConnectED allows teachers to build summative assessment that can be customized for each lesson and needs of students. The Chapter Test assessment are provided in three levels to support differentiated instruction. ConnectED provides students additional formative and summative online self-assessment practice. Students can email online assessment results to teachers and parents.</p> <p>Extension activities range from the writing in science activities in each chapter's special science reading feature to real-world science and enrichment activities and numerous WebQuest projects and inquiry options. All of these resources provide the teacher with the ability to reach each student or groups of students with resource that support or help students explore new phenomenon in extension activities.</p> <p>LearnSmart is an adaptive learning system that meets each student where they are and helps them progress to mastery by helping them read more effectively and adaptively guiding their review process. The system based on metacognitive research and memory decay models, helps students to master concepts long term. LearnSmart allows students and teachers to constantly assess understanding of a given topic and automatically modify the delivery of content of the books to match the student's learning needs. LearnSmart generates data for the student and teacher so that lessons and if necessary intervention can be precisely crafted for each student.</p>
	6f) The text and supplemental materials provides	<p>The number and quality of the opportunities for the student to think critically, creatively, and reflectively in scientific investigations are abundant in MHE's high school science series. The number of scientific investigations in the ancillary laboratory manuals in</p>

	<p>ample materials that reinforce student learning through practice.</p>	<p>addition to the number of labs in the textbook far exceeds the number of days in the school calendar. The teacher has the opportunity to choose the best ones to fit the local circumstances and needs of the students. The “Data Analysis Labs” cite the actual research source from which the questions are based. This information allows students the opportunity to delve deeper into the research and extend their learning experience.</p> <p>The inquiry activities ask students to define the problem, form a hypothesis, and design an experiment to test their idea. Once they have their data, they are asked to modify the experiment’s design to remove uncertainties so they achieve clearer results. The text has special features that describe how new technologies impact people’s life. Students are provided with opportunities to evaluate and write about the impact of human endeavors on their world.</p> <p>The high school science series provides a variety of labs that further students’ opportunities to engage in inquiry experiments that support understanding of major concepts. The Virtual Labs provide interactive manipulations of variables that support engineering design principles. The Video Lab online helps students with reviewing selected lab procedures. The web site offers students access to the virtual labs and WebQuest research activities.</p> <p>The eAssessment program on ConnectED allows teachers to build summative assessments that can be customized for each lesson of the student edition. ConnectED’s Plan and Present function includes formative and summative assessment. Plus, the “Chapter Test” assessment is provided in three levels to support differentiated instruction. The program’s web site provides students additional formative and summative self-assessment practice. Students can email online assessment results to teachers and parents.</p> <p>The combination of Applying Practices activities, WebQuests, and inquiry activities, provides students with multiple opportunities to experience relevant phenomena in both representation format and in firsthand experience. Within the lessons, Data Analysis Labs present results from research presented in scientific literature to bring scientists doing science to the classroom. These activities engage students in phenomenon from various disciplines and involve them in three-dimensional learning. Students utilize science and engineering practices to make choices, design investigations, make models, analyze data and draw conclusion as they move toward a solution in real-life relevant scenarios. These opportunities allow students to make connections to the world they live in as they develop crucial problem-solving and critical thinking skills.</p> <p>Inquiry instruction can be diversified with a suite of lab offerings that can reach students where they are, while challenging them to excel.</p> <p>The ConnectED platform is a great solution for students and teachers to explore and to be engaged and supplied with all the resources tied to the textbook. This platform</p>
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		<p>allows learning and teaching to happen anytime and anywhere with the supporting resources students need.</p> <p>MHE’s Biology, Physical Science, Earth Science, Chemistry, and Physics series clearly highlights new and review vocabulary at the beginning of each section of instruction in the student edition. All key terms are boldfaced, highlighted and defined in context within the paragraph that it is used. The textbook integrates student-friendly margin features that provide vocabulary support to clues, root words, prefixes and suffixes; in order to help the student. Foldables™ are three-dimensional graphic organizers that provide review and reinforcement of vocabulary related to the big idea of the chapter. The chapter-end Study Guide reviews all of the important key scientific vocabulary by section that is also related to the chapter’s big idea.</p> <p>The Science Notebook is a student resource tool that provides unique vocabulary and writing support for key concepts. ConnectED provides the teacher with an interactive, editable presentation that has visual and auditory reinforcement as new vocabulary is being taught. The eBook on ConnectED provides audio that aids the acquisition of key scientific vocabulary related to the sciences. ConnectED offers “Vocabulary eFlashcards” and “Vocabulary eGames” in English and Spanish for review and practice of important terms.</p> <p>LearnSmart allows students and teachers to constantly assess understanding of a given topic and automatically modify the delivery of content in the books to match the student’s learning needs. LearnSmart generates data for the student and teacher so that lessons and if necessary intervention can be crafted for each student.</p>
	<p>6g) All supplemental materials are aligned to the text content with a clear match to content.</p>	<p>McGraw-Hill Education is committed to publishing pedagogically sound, high-quality, educational material that is fair, unbiased, and that recognizes the unique contributions of people of all races, cultures, and faiths. To ensure that our textbooks meet these high standards, all textbooks are authored by scholars and educators who are recognized experts in their areas of specialty. McGraw-Hill School Education also submits manuscripts to independent scholars and teachers for their review. To reach consensus on information with divergent interpretations, the recommendations of these educators and specialists are reviewed and discussed among the author and Academic Designers until final consensus is negotiated; changes are then incorporated into the manuscript to ensure that the materials are accurate and unbiased, present the materials in an age-appropriate and meaningful manner, and reflect the most current research in the subject area.</p>
	<p>6h) Supplemental materials provide a variety of resources for student learning</p>	<p>Through the inquiry activities students are asked to define the problem, form a hypothesis, and design an experiment to test their idea. Once they have their data, they are asked to modify the experiment’s design to remove uncertainties so they achieve clearer results. Each textbook has special features that describe how new technologies impact people’s lives. Students are provided with opportunities to evaluate and write</p>

	activities (e.g., incorporating science journals/writing, cooperative group work, graphic organizers, etc.).		<p>about the impact of human endeavors on their world.</p> <p>The variety of labs further students’ opportunities to engage in inquiry experiments that support understanding of major concepts. The Virtual Labs provide interactive manipulations of variables that support engineering design principles. The Video Lab online helps students with reviewing selected lab procedures.</p> <p>The structure of the unit and/or lessons within MHE’s high school science series targets a gradual release model of the conceptual framework of the science. Students’ knowledge and understanding build while moving from lesson to lesson. Students are then able to apply practices and concepts to rigorous situations. The ability to meet the performance expectations lies in the deep exposure to the DCIs, while using the practices and the crosscutting concepts. Crosscutting concepts, such as patterns, cause and effect, structure and function, and matter and energy, are found throughout the Applying Practices, the PBLs, the WebQuests, and the inquiry activities.</p> <p>The science and engineering practices are detailed in the Science and Engineering Practices Handbook. Additionally, the practices are integral to the performance expectations that are always presented in the context of the DCIs they relate to. They are not done in isolation from context. A number of the labs also involve engineering practices as students design their investigations and perform analyses.</p> <p>The “Identity Misconception” feature provides diagnostic assessment. Formative assessment strategies are provided in the margins of the Teacher Wraparound Edition. This Teacher Wraparound Edition provides an “Assess” checkpoint, which provides an evaluation of key section concepts and an activity to re-teach students who are struggling to meet the learning objective.</p>
CRITERIA	INDICATORS OF SUPERIOR QUALITY	RATING 5, 3, 0	COMMENTS WITH EXAMPLES
(7) 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.	7a) Multiple types of formative and summative assessments (performance-based tasks, questions, research, investigations, and projects) are		<p>Project-Based Learning activities are integrated throughout each text in the Science Programs for High School. Each of these PBLs and Applying Practices activities focus on the eight science and engineering practices and provide the teacher with background information and strategies for effectively using the programs.</p> <p>The teaching strategies presented in the Teacher Edition support the overarching principles of the National Science Education Standards and the NSTA Position Statement on Inquiry Learning and Laboratory Activities by providing opportunities for science inquiry, scientific discussion and debate, formative and summative assessment of student understanding, and connection to other areas of learning.</p> <p>Digital high school science solutions, solving real problems for the real world:</p>

<input type="checkbox"/> YES <input type="checkbox"/> NO	<p>embedded into the content materials and assess the learning targets.</p>	<ul style="list-style-type: none"> • Project-Based Learning activities (PBLs) • Science and Engineering Practices Handbook • Applying Practices Worksheets <p>The Applying Practices activities and Project-Based Learning activities, each written to a specific NGSS performance expectation, appear at point of use. These editable worksheets can be filled in online or downloaded. Students will be engaged and successful, integrating the three dimensions—disciplinary core ideas, science and engineering practices, and cross-cutting concepts!</p> <p>LearnSmart allows students to do self-assessment in a strong learning environment that also uses research and algorithmic engines to make learning a unique experience for each student.</p> <p>MHE’s high school science series provides teachers with comprehensive ongoing assessment opportunities.</p> <p><u>Formative/Diagnostic</u></p> <ul style="list-style-type: none"> • Launch Labs and Foldables activities at the beginning of each chapter provide ways for students to build upon prior knowledge. These activities can assist teachers by helping to inform their instruction. • Reading Checks and caption questions provide opportunities for ongoing assessment. • The end of each section contains several questions at various difficulty levels to be used as a checkpoint prior to moving on to the next section. • ConnectED provides formative and summative self-assessment practice. Students can email online assessment results to teachers and parents. • All of the labs include assessment opportunities. • The Teacher Wraparound Edition provides teachers with many questioning strategies designed to help them assess student understanding. At the end of each lesson are strategies to Check for Understanding as well as Reteaching. • ConnectED eAssessment includes question sets to create quizzes at the end of each section. <p><u>Summative/Cumulative</u></p> <ul style="list-style-type: none"> • Each Chapter ends with a Chapter Review containing many questions at a range of levels that can help teachers assess student understanding. There are also two pages of questions in standardized test format. • The eAssessment Suite offers an extensive bank of questions that can easily be searched and edited to create quizzes, tests for summative or cumulative assessment.
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		<ul style="list-style-type: none"> The Leveled Resources book online provides three levels of summative assessments
7b) The assessment materials include embedded assessments that reflect a variety of knowledge levels.		<p>McGraw-Hill Education’s High School Science provides Applying Practices activities and Project-Based Learning (PBL) projects, which appear at point of use, that are correlated to the pertinent DCI and science content. Each activity and project is written to a specific NGSS performance expectation using the science and engineering practices. These editable worksheets can be filled in online or downloaded. Students will be engaged and successful, integrating the three dimensions—disciplinary core ideas, science and engineering practices, and crosscutting concepts. LaunchLabs, MiniLabs, Data Analysis Labs, and DBQs, as well as guided and full inquiry activities and virtual labs online, further support the science content using science and engineering practices. All the projects and activities are supported by the Science and Engineering Practices Handbook online.</p>
7c) The assessment materials provide evaluation measures that supports differentiated learning activities.		<p>LearnSmart with SmartBook is an interactive and adaptive version of the book with continual assessment and metacognitive tools to help teachers and students know what the student has mastered and what the student needs to focus on. LearnSmart includes 3 stages: Preview (before), Assess (during), Review (after/mastery).</p> <p>Rich visuals with caption questions, Reading Checks and Section Assessments provide formative assessment and student metacognition integrated within the lesson. Reading Checks are formative assessment questions integrated within the lesson for students to self-assess their reading comprehension before going onto the next lesson. The Section Assessment in the Student Edition provides students with summary statements and scaffold questions that tie to the learning objectives for that section. Online Self-Check quizzes also provide formative assessment opportunities.</p> <p>Differentiated Instruction activities are available for approaching level, on level, beyond level and ELL students and provide additional open-ended practice for students. There are also additional activity ideas provided in the TE that teachers can choose to assign or modify for additional inquiry practice. The Fast File Unit Resources contain a variety of resources that are useful for differentiation, such as leveled labs and assessments, as well as activities that range from remediation for struggling students to challenges for advanced learners.</p>
7d) Scoring guidelines and rubrics align to performance expectations, and incorporate criteria		<p>MHE’s eAssessment allows teachers to give online formative and summative assessments and easily generate data to inform their lessons as well as modify instruction for particular students. Teachers are given the necessary tools to guide instructional decision at every point. Teachers can pull questions based on the NGSS and evaluate students on the DCI’s, which incorporate both science and engineering practices and crosscutting concepts.</p>

	that are specific, observable, and measurable.		<p>Rubrics are provided online for PBL projects, Applying Practices activities, and labs to evaluate progress on three-dimensional learning.</p> <p>The opportunities for assessment represent a range of assessment recognized in the Understanding by Design Continuum, including informal, formative, performance expectations, summative, written, and practical. These various methods of assessment are accessible and unbiased for all students.</p>
TOTAL SCORE (PART 2)			
TOTAL SCORE (PART 1 and 2)			