

2024 Instructional Material Summer Review Institute

**Review Team Appraisal of Title
Grades 6-8 Integrated Science II**

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the need of their student populations.

[NMPED Adoption Information](#)

Text Title	Inspire Science, New Mexico Integrated Grade 7, Comprehensive Student Bundle with Actively Learn Science, 6-year Subscription	Publisher	McGraw Hill LLC
SE ISBN	9781266204272	TE ISBN	9780076874828
SW ISBN		Grade Level/Content	Grades 6-8 Integrated Science II

Core Instructional Material Designation (*Core Instructional Material is the comprehensive print or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.*)

Recommended
(90% and above)

Recommended with Reservations (80-89%)

Not Recommended and Not Adopted
(below 80%)

Total Score - The final score for the materials is averaged between the team of reviewers.

Average Score

89%

Cultural and Linguistic Relevance Recognition - Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding cultural relevance and the inclusion of a culturally responsive lens. Those materials receiving a score of 90% or above on the CLR portion of the review are recognized as culturally and linguistically relevant.

CLR Recognized

Average Score

79%

FOCUS AREA 6: CULTURAL AND LINGUISTIC PERSPECTIVES

Instructional materials represent a variety of cultural and linguistic perspectives.

Statements of appraisal and supporting evidence:

The instructional materials represent a limited variety of cultural and linguistic perspectives for students to learn from. "Real-World Connections" help relate the content to diverse backgrounds. There are also explore and explain sections that include tools and resources that can serve as a compare/contrast for different cultural and linguistic backgrounds. Most photos and diagrams are ambiguous to gender and race. However, the materials do not always address multiple ethnic descriptions, interpretations or perspectives of events and experiences. Materials do not include references to New Mexico's cultural, geologic or scientific background for critical reflection. The "Careers in Science" sections only features one woman, and she is not a woman of color. The "STEM careers" sections have photographs that feature women in less than 50% of the sections throughout the grade level.

FOCUS AREA 7: INCLUSION OF CULTURALLY AND LINGUISTICALLY RESPONSIVE LENS

Instructional materials highlight diversity in culture and language through multiple perspectives.

Statements of appraisal and supporting evidence:

The instructional materials do not support the diversity in culture and language through multiple perspectives and responsive lenses. The material includes tools and resources that can be used to relate the content of diverse backgrounds through making real-world connections. However, some materials and photos do not address cultural responsiveness for all students.

Science Standards Review - Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards. The science standards include the performance expectations (PEs), disciplinary core ideas (DCIs), science and engineering practices (SEPs), crosscutting concepts (CCCs), and connections (CONNs) of the Next Generation Science Standards (NGSS). They also include the six NM StemReady! science standards.

Average Score

87%

OVERALL ALIGNMENT

Materials align with the science standards overall.

Statements of appraisal and supporting evidence:

The materials align with NGSS and NM STEM Ready! standards associated with disciplinary core ideas (DCI), science and engineering practices (SEP), and crosscutting concepts (CCC). The materials tie in student learning through aligned teacher instruction and engagement with labs, module projects and strategies supported for differentiated instruction and English language supports. The material provides differentiation for both approaching level (AL) learners and beyond level (BL) learners through research-based strategies. The materials provides English language support for entering, emerging, developing, expanding, bridging and reaching level students through activating prior knowledge and relating learning to real-world experiences.

CHEMICAL REACTIONS

Materials align to the physical science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The materials align with NGSS and NM STEM Ready! standards associated with physical science performance expectations that are properties of matter, chemical reactions, and developing and optimizing design solutions (DCIs). The materials are inquiry-based and provide opportunities for students to learn through science probes, reading scientific text, CERs, labs, investigations, and module projects. The focus of the SEP is to develop and use models, analyze and interpret data, and obtaining, evaluating, and communicating information with peers. The CCCs focus on scale, proportion, quantifying patterns and structures for energy and matter usage.

METABOLIC REACTIONS IN ORGANISMS

Materials align to the life science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The materials align to PE MS-LS1-7 through examination of the relationships of respiration and photosynthesis and the flow of energy through ecosystems. The materials partially meet the standards for the life science performance expectation and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this topic. The materials for the PE MS-LS1-5 are stated as being available online; however, the reviewers had difficulty locating and navigating the information within the platform for reproduction of organisms.

ECOSYSTEM INTERACTIONS AND COMPETITION

Materials align to the life science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The materials provide alignment with the topic of ecosystem interactions and competition and the associated performance expectations by incorporating illustrations; predicting outcomes; discussing cause and effect; and analyzing and interpreting data for population growth. The materials provide opportunity for explaining the understanding of interactions and relationships between organisms and constructing arguments based on evidence. There are various research opportunities for students pertaining to ecosystems and module STEM-based projects that assess student knowledge and stability of a changing biodiverse ecosystem through design solutions, labs and student engagement.

ECOSYSTEMS: MATTER AND ENERGY

Materials align to the life science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The material aligns to the life science PEs and related components for matter and energy by providing students labs, investigations, and graphic organizers that reinforce the content of energy flow and conservation of matter through an ecosystem. The materials provide opportunities for natural world explanations to guide in the process of model design.

EARTH RESOURCES AND CLIMATE CHANGE

Materials align to the earth and space science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The material partially aligns to the earth and space science PEs and related components for natural resources, human impacts on earth systems, and global climate change. The materials give students opportunity to engage in argument from evidence while emphasizing stability and change. In the SEP constructing explanations and designing solutions, the materials are related but not specific and do not provide an opportunity for students to design an object, tool, or process. In the CCC cause and effect, materials do not differentiate between causal and correlational relationships.

ENGINEERING DESIGN

Materials align to the engineering design performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The materials partially align to this topic because they provide a structure for the engineering design for life science and the NGSS performance expectations by defining criteria and constraints of a design problem, using systematic processes to analyze data, and developing a model. The material offers students opportunities to define criteria, test constraints, and analyze solutions. The CCC Influence of Science, Engineering, and Technology on Society and the Natural World is not evident for the Performance Expectation of MS-ETS1-1 .

CCSS for ELA and Math in Grades 6-8 NGSS

Materials align to the ELA and math standards identified in grades 6-8 Integrated Science II NGSS.

Statements of appraisal and supporting evidence:

The materials align to the ELA and math standards identified in grades 6-8 Integrated Science II NGSS by engaging students in mathematical operations and analysis with data from labs and investigations. The materials also encourage students to complete calculations and model different mathematical concepts. The materials are designed to engage students in multiple reading and writing strategies. The materials provide opportunities for students to write arguments based on evidence, statements based on material learned in a unit, and/or explanations based on research and experiments, as well as revision of writing throughout the lessons.

Science Content Review- *Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the specific content area reviewed.*

Average Score

100%

FOCUS AREA 1: PHENOMENA-/PROBLEM-BASED AND THREE-DIMENSIONAL APPROACH

Instructional materials are centered around high quality phenomena and/or problems and require a three dimensional approach to make sense of the phenomena or to solve the problems.

The instructional material provides high-quality phenomena that require a three-dimensional approach to make sense of the phenomena to solve the problem through STEM module projects by bringing in lesson planning, evaluation, feedback and presentation explanation. The material provides progressions around phenomena that develop students' knowledge and skills as aligned with the SEP, CCC, DCI and CCSS math and ELA standards.

FOCUS AREA 2: THREE-DIMENSIONAL ASSESSMENT

Assessments provide tools, guidance and support for teachers to collect, interpret and act on data about student progress toward the learning goals of the 3 dimensional standards.

The instructional materials provide tools, guidance, and support for teachers as they assess their students' knowledge and ability both formatively and summatively. The materials give multiple opportunities for assessment through science probes, claim, evidence, reasoning, STEM module projects, and premade pre/post assessments that teachers can adapt as needed for evidence of student learning.

FOCUS AREA 3: TEACHER SUPPORTS

Materials include opportunities for teachers to effectively plan and utilize materials.

The materials include opportunities for teachers to effectively plan and utilize materials by providing pacing guides, a teacher toolbox, lab guidance, suggested scripts, and research-based differentiation strategies, with possible student responses at different EL levels. The written instructional material offers support for veteran and new teachers.

FOCUS AREA 4: STUDENT CENTERED INSTRUCTION

Materials are designed for each student's regular and active participation in science content.

The instructional materials provide opportunities for student active engagement and participation that accesses prior knowledge and connects to student learning. This is evident through differentiated instruction and English language support strategies through peer to peer discourse and collaboration for student engagement.

FOCUS AREA 5: EQUITY

Materials are designed for all learners.

The instructional materials are designed for learners at grade level. They are filled with pictures, charts, graphs, and videos that help illustrate meaning of science content. Suggestions and supplemental materials provide access for approaching level and beyond level students as well as English learners.

All Content Review - Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, lesson structure, pacing, assessment, individual learners and cultural relevance.

Average Score

92%

FOCUS AREA 1 COHERENCE:

Instructional materials are coherent and consistent with the New Mexico Content Standards that all students should study in order to be college- and career-ready.

Statements of appraisal and supporting evidence:

The instructional materials are coherent and consistent with the New Mexico Content Standards, ensuring that all students will receive grade level appropriate assignments with a balance between NGSS, CCSS and NM STEM Ready Standards. The instructional materials address the content within the standards, supporting mastery of each standard. The instructional materials adhere to the expectations for making meaningful connections to real-world experiences that empower students to be college and career ready by exposing students to science and STEM careers and integrating technology into the learning environment.

FOCUS AREA 2 WELL-DESIGNED LESSONS:

Instructional materials take into account effective lesson structure and pacing.

Statements of appraisal and supporting evidence:

The instructional materials take into account effective lesson structure and pacing. Lessons are 5E-designed and start with encountering a phenomenon, accessing students' prior knowledge, and providing scaffolding as students work through activities. Lesson plans are consistent throughout units with module planners and pacing guides that help both experienced and new teachers efficiently navigate the units/lessons.

FOCUS AREA 3 RESOURCES FOR PLANNING:

Instructional materials provide teacher resources to support planning, learning, and understanding of the New Mexico Content Standards.

Statements of appraisal and supporting evidence:

The instructional materials provide teacher resources to support planning, learning and understanding of the New Mexico standards, with pacing guides, suggested scripts, teacher toolbox resources, lab guidance, research-based differentiation strategies as well as NM Standards progression guides for teachers to use when planning lessons.

FOCUS AREA 4 ASSESSMENT:

Instructional materials offer teachers a variety of assessment resources and tools to collect ongoing data about student progress related to the standards.

Statements of appraisal and supporting evidence:

Instructional materials offer teachers a variety of assessment resources and tools to collect ongoing data about student progress related to the standards. There are opportunities for teachers to collect formative student data from science probes, claims, evidence, reasoning, and 3-dimensional thinking checks. There is also online support through AdvancED / Measured Progress, which provides data-driven tools to track assessment data including robust performance tasks. From the online platform, teachers can see assignment and assessment data as well as print class reports.

FOCUS AREA 5 EXTENSIVE SUPPORT:

Instructional materials give all students extensive opportunities and support to explore key concepts.

Statements of appraisal and supporting evidence:

The instructional material gives all students opportunities and support to explore key concepts by customizing or adapting to the needs of different student populations through scaffolding instruction to help students connect to concepts. The instructional materials also offer graphic organizers to help students explore the transfer of material, draw attention to processes and elicit examples for all learners. The instructional material addresses the importance of parent and family engagement in order to provide family support and progress for student achievement with school-to-home resources that help parents and guardians understand the learning objectives for each module. The material provides support through Measured Progress STEM Gauge, which enables the teacher to monitor progress toward learning the NGSS. The material is limited in support for English learners, in that Navajo/Diné and the pueblo languages of Tewa, Tiwa, Towa, Keres and Zuni are missing for New Mexico cultural and linguistic students.

FOCUS AREA 6 CULTURAL AND LINGUISTIC PERSPECTIVES:

Instructional materials represent a variety of cultural and linguistic perspectives.

Statements of appraisal and supporting evidence:

The instructional materials represent a limited variety of cultural and linguistic perspectives for students to learn from. "Real-World Connections" help relate the content to diverse backgrounds. There are also explore and explain sections that include tools and resources that can serve as a compare/contrast for different cultural and linguistic backgrounds. Most photos and diagrams are ambiguous to gender and race. However, the materials do not always address multiple ethnic descriptions, interpretations or perspectives of events and experiences. Materials do not include references to New Mexico's cultural, geologic or scientific background for critical reflection. The "Careers in Science" sections only features one woman, and she is not a woman of color. The "STEM careers" sections have photographs that feature women in less than 50% of the sections throughout the grade level.

FOCUS AREA 7 INCLUSION OF CULTURALLY AND LINGUISTICALLY RESPONSIVE LENS:

Instructional materials highlight diversity in culture and language through multiple perspectives.

Statements of appraisal and supporting evidence:

The instructional materials do not support the diversity in culture and language through multiple perspectives and responsive lenses. The material includes tools and resources that can be used to relate the content of diverse backgrounds through making real-world connections. However, some materials and photos do not address cultural responsiveness for all students.

Reviewers' Professional Summary - These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.

Reviewer #: 49

Background and experience:

I hold a Level III-A Instructional Leader 6-12 Secondary Education license with endorsements in TESOL, science and physical education. I have a bachelor's in physical education and a master's in education. I have 28 years teaching experience in science and have taught middle school STEM/STEAM classes. I have been involved in development of science curriculum K-12. Currently, I serve in the role of Science Department Head and District Teacher Leader, which includes guiding curriculum alignment, grade-level appropriate instruction and assessments, and teacher support. I am currently a member in Teachers Organizing Diverse Opportunities Across a STEM Ecosystem (TODOS), New Mexico Science Teachers Association (NMSTA), which includes building partnerships and leadership across the STEM learning ecosystem in the state of New Mexico while advocating for culturally responsive K-12 science.

Professional summary of material:

I recommend the material of McGraw Hill Inspire Integrated Science, Grade 7, with reservation. The material presents an organized sequence for science instructional units and modules that align with NGSS Performance Standards and the three dimensional learning of disciplinary core ideas (DCI), science and engineering practices (SEP), and crosscutting concepts (CCC). The instructional materials align with Common Core State Standards (CCSS) for ELA/literacy through reading (leveled reading), listening, writing (prescribed tasks and prompts) and oral discussion and presentation. The material is aligned with CCSS math standards that offer a deeper understanding through student work. Modules, lesson objectives, and STEM module projects are consistent in formatting for both the teacher and student editions. Inspire Science provides Spanish language text and leveled text and also offers strategies and supports for English learners in the teacher's edition. Inspire Science offers a variety of modalities for technological engagement to include "PhET Interactive Simulations", "Webquests", and "Virtual Lab". Overall, McGraw Hill Inspire Science comprehensively addresses the NGSS and NM STEM Ready standards in an organized platform through grade-level appropriate assessments and assignments spiraled in with high-quality instructional materials.

The challenges of the instructional material is that some standards are not present in the viewed text. In some areas (Online Interactive Presentations and worksheets), the teacher will need to be diligent in accessing teacher materials and making them accessible to students through a student-populated platform.

Reviewer #: R50

Background and experience:

I hold a Level II Professional License, 5 – 9 Middle Level for Science and Health. I have 14 years of middle school science teaching experience and have taught in New Mexico, Colorado, Texas, and in Asia. I have worked extensively with Next Generation Science Standards, including integrating them into an International Baccalaureate framework. I am also the science department chair for my middle school. My past experiences include coaching University Interscholastic League (UIL), developing a science olympiad team for state competition, science fair coordinator, and coaching an all-girls' team to compete in the New Mexico Electric Car Challenge.

Professional summary of material:

I recommend these materials with some reservation for use in the state of New Mexico. There is good alignment to the NGSS and the use of 3-dimensional learning is purposeful. Lessons build on each other and there is a set order to the activities that you see repeated through the units. The teacher edition gives planning and pacing guides that are helpful. Reading passages are short, but longer readings are available as an online resource. Strategies are included for teachers that help support all learners, both for approaching and beyond grade level learners as well as supports for English learners. The material for Spanish speakers is extensive, but less is available for other languages. Lessons are designed to be inquiry driven and have an essential question guiding student objectives. Activities are more teacher guided than student-centered, but labs and investigations are present throughout. There are many formative assessments available as are online pre/post unit tests that can be modified. Also included are STEM challenges that expose students to the engineering and design process. Online material has many resources available such as BrainPop videos and Phet interactives, but navigating the platform can be cumbersome and time consuming. Throughout the materials there are many opportunities to tie science content to New Mexico state culture, but specific examples are not present. Activities such as science probes that draw on prior knowledge and open-ended questions would allow students to look at science content through a New Mexican lens.

Reviewer #: 51

Background and experience:

I hold a Level II Secondary 6-12 teaching license and a Level II K-8 Elementary license in the state of New Mexico with an endorsement in science. I have 15 years of teaching experience and have taught a majority of that time in middle school science and high school science, as well as serving as science department chair. Prior to my career in education, I worked in biotechnology laboratories and in a microelectronics lab in the university settings as well as at two different national laboratories. Currently, I am a science support specialist supporting and providing professional development to middle school science teachers.

Professional summary of material:

I recommend, with reservations, the McGraw Hill Inspire INtegrated Science Grade 7 instructional materials. These materials provide content for teachers and students that is mostly aligned with the NMSTEMReady! Standards. These instructional materials address the performance expectations, disciplinary core ideas, science and engineering practices, and the crosscutting concepts of the NM STEM Ready! Standards, as well as some of the grade level CCSS ELA and CCSS math standards. The lessons are teacher guided and provide students with the opportunity to access the information in multi-modal formats. Embedded in the lessons, students have the opportunity to practice arguing from evidence, build models, follow lab procedures, and create end of module projects, as well as the opportunity to revise assignments as they learn throughout their lessons. Some of the supporting materials are accessible online and include additional reading virtual labs through PHeT.colorado.edu, videos, and BrainPop.com. Some of the guided scripts might be of benefit for new teachers. Accessing the online resources can be cumbersome and is not completely intuitive. The grade 7 materials do lack some cultural responsiveness, and do not address the science-based learning opportunities we have in New Mexico.