

2024 Instructional Material Summer Review Institute

Review Team Appraisal of Title
Grades 6-8 Integrated Science III

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 8, Comprehensive Student Bundle with Actively Learn Science, 6-year Subscription	Publisher	McGraw Hill LLC
SE ISBN	9781266213045	TE ISBN	9780076875351
SW ISBN		Grade Level/Content	Grades 6-8 Integrated Science III

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

96%

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. The materials provide different perspectives from locations around the world. However, cultural and linguistic perspectives from New Mexico are not present despite New Mexico having a very rich scientific background in the content of these materials. However, the materials are limited in directly exposing all learners to different cultural perspectives.

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 are limited in their inclusion of a culturally and linguistically responsive lens. The materials miss the opportunity of connecting students' cultural knowledge to the content. The materials highlight some females in the STEM careers section and in the photos and illustrations used within the text. However, female representation is rather limited when sports examples are used. The STEM careers feature a majority of males in these sections. There is also no representation of the impact New Mexico's scientific history has had on the content areas.

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
97%

OVERALL ALIGNMENT

Materials align with the science standards overall.

Statements of appraisal and supporting evidence:

The instructional materials align with the science standards overall by giving students the opportunity to interact with phenomena that demonstrate contact forces and motion; sound waves; electrical, magnetic, and gravitational forces; earth, solar system, galaxy, and communication in space; and principles of genetics, natural selection, common ancestry, as well as engineering design. The instructional materials provide students multiple opportunities to engage with the material through labs, online simulations, investigations, reading of primary source material, research projects, modeling, redesign, and learning about careers in fields related to the content.

CONTACT FORCES AND MOTION

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 instructional materials align with the physical science performance expectations and related components (DCI, SEP, CCC, CONN, and NM Standards) for Contact Forces and Motion. The materials demonstrate connections and describing patterns of Newton's Third Law, modeling/diagramming and illustrating net force, constructing arguments and creating 3D models to represent the motion of Newton's Third Law. The materials allow for descriptions of objects using frame of reference while supporting and reinforcing content through interactive simulations and collecting data through labs and projects. The implementation of graphical data allows for the explanation of quantitative variables, interpreting data in relation to the phenomena.

SOUND WAVES

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 instructional material aligns with the physical science performance expectations and related components (DCI, SEP, CCC, CONN, and NM Standards) for Sound Waves. The material offers illustrations, diagrams and explanations of wave patterns and motions within objects related to energy. The material offers opportunity for collaboration through practice of skill through labs and projects. The integration of digital support through simulations and interactive programs demonstrates the variety of learning expectations of all students. The materials offer structured guidance for observation of light, analyzation and collection of evidence of light behaviors through different media, compare and contrast patterns and phenomena associated with EM waves.

ELECTRICAL, MAGNETIC, AND GRAVITATIONAL FORCES

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 instructional materials align with the physical science performance expectations and related components (DCI, SEP, CCC, CONN and NM Standards) for Electrical, Magnetic, and Gravitational Forces. The materials offer illustrations, descriptions and the relationship of magnets in relation to electric forces through simulations, performance-based labs and projects, digital support through PhET simulations, online interactive presentations, and large group collaboration. The material demonstrates comparison and explanation of force-mass proportionally with the strength of gravitational pull. The material guides the learner to construct and present arguments associated with the electrical, magnetic, and gravitational forces between objects as well as collect evidence to support solutions to scientific problems and phenomena.

EARTH, SOLAR SYSTEM, GALAXY AND COMMUNICATING IN SPACE

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 instructional materials align with the earth and space science performance expectations. The materials offer illustrations, descriptions and diagrams of the motion of earth, sun and seasons. The material allows for interpretation and written explanation of connecting real-world experiences within the sun-moon-earth relationship. The material guides the learner in determining cause and effect between phenomena and evidence. Digital resources offer support and reinforcement of content through videos, interactive presentations, PhET simulations and online vocabulary that guides the learner to take ownership of their learning expectations. The material demonstrates and explains the similarities and differences between celestial bodies within the solar system and walks the learner through the interactions of the celestial system and the relationships between planets, galaxies and beyond.

GENETICS

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 instructional materials align to the life science performance expectations for Genetics. Materials give opportunity for learners through developing and using models, and analyzing and interpreting data related to the structure and function of DNA and their mutations. Materials have readings, labs, and investigations that allow learners the opportunity to obtain, evaluate, and communicate information. The DCI on growth and development is only available in the online module reproduction of organisms.

NATURAL SELECTION

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 instructional materials align with the life science performance expectations for Natural Selection. The materials give opportunity for the learner to develop and make models and use math and computational thinking skills related to population variation and adaptations. Materials have labs, investigations, and online simulations that enable students to make connections between cause and effect relationships. The DCI for growth and development of organisms is covered in the online module reproduction of organisms.

COMMON ANCESTRY

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 instructional material aligns with the life science performance expectations for Common Ancestry. The material offers illustrations, diagrams and explanation of the fossil record, anatomical similarities and differences, and comparative embryology related to common ancestry. The material gives learners the opportunity to analyze and interpret data, construct explanations and design solutions through visual literacy, reading scientific text, labs, and investigations that make connections about patterns of change in organisms over time.

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 instructional materials align with the engineering design performance expectations and related components by allowing students opportunities to design based on research and information learned throughout modules. The instructional materials also expose students to working with classmates, and to work through redesign based on test results. These also give students a chance to ask questions, use and develop models, and analyze data.

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 III NGSS.

Statements of appraisal and supporting evidence:

The instructional materials align to the ELA and math standards identified in grades 6-8 with various modalities. The instructional materials align with the ELA standards through giving students the opportunity to do research, use claim, evidence, and reasoning, write for specific audiences, create presentations, and debate based on a phenomenon. The instructional materials also align with the math standards by giving students the opportunity to use multiple mathematical concepts for practical application, such as ratios, proportions, modeling, solving equations with multiple variable, solving multistep equations, modeling using math, using square roots and exponents, and statistical analysis of data.

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 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 problem. The materials demonstrate this by starting each lesson with "Encounter the Phenomenon", which introduces a phenomenon and guides students through asking questions to begin making sense of the phenomenon. Each module concludes with a "STEM Module Project" that is a problem/phenomenon based project.

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 material for three-dimensional assessment provides tools, guidance, and support for teachers as they collect and interpret data. Student progress toward learning goals can be differentiated by offering modalities for student engagement across the dimensions. Online resources contain opportunities, reinforcement and supplemental instruction to enhance student feedback and self-reflection through rubrics and teacher-peer guidance in accordance with the three-dimensional assessment.

FOCUS AREA 3: TEACHER SUPPORTS

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

The instructional materials include resources for research-based instructional strategies. The teacher's edition is very purposeful about 3-dimensional learning. Specific DCIs, SEPs, and CCCs are identified for each standard. Materials provide a module planner, breaking down lessons with pacing, objectives, and inquiry activities. The teacher toolbox helps identify student misconceptions. Activities list their purpose, activity guide, and question strategies to help teachers check for understanding. The guide for differentiated instruction includes both approaching level and beyond level students, and support for English language learners gives strategies for learners at each level. Instructional materials also have many online resources available.

FOCUS AREA 4: STUDENT CENTERED INSTRUCTION

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

Instructional materials are designed for each student's regular and active participation in science content. The text offers phenomena by pulling in prior student knowledge and connecting to real-world problems. The material illustrates the 5E learning design through student-based discourse that provokes critical thinking and problem-solving skills to build a coherent/meaningful learning environment.

FOCUS AREA 5: EQUITY

Materials are designed for all learners.

The instructional materials are designed for all learners. The materials encourage group work and class sharing to expose students to different cultural perspectives. There are materials to reach out to student households in various languages (but these materials are not available in the native languages found in New Mexico).

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

93%

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. The materials are designed to address phenomena and real world problems through investigations, projects, exposure to primary source reading materials, and STEM careers. These engage students in the content and prepare them to be college and career ready.

FOCUS AREA 2 WELL-DESIGNED LESSONS:

Instructional materials take into account effective lesson structure and pacing.

Statements of appraisal and supporting evidence:

Instructional materials take into account effective lesson structure and pacing. They use the 5E lesson model, starting with an initial phenomenon that connects to student prior knowledge and encourages student questions. Lesson plans are consistent throughout the units using similar activities for each new content topic. Each lesson has labs and investigations to keep students engaged. Content can be differentiated to meet a wide variety of student needs.

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. The module planner and associated lessons correlate with the NGSS. The instructional materials offer scaffolding, differentiation strategies, and English language support for academic development. Also included are planning suggestions for student collaboration and interactive presentations for academic growth. The online instructional material provides opportunities for digital learning through PhET simulations and interactive reinforcements.

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:

The instructional material offers teachers a variety of assessment resources and tools to collect ongoing data about student progress through formative/summative assessments. The assessment structure is aligned with NGSS and lesson language objectives. Rubrics allow for reflection and remediation of performance standards with the opportunity to provide scaffolding to meet the needs of English learners, CLD students, advanced and special needs students.

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 materials give all students extensive opportunities and support to explore key concepts. The material is presented at the 6-8 grade level, but there are many supports in place to meet the needs of individual learners. For those approaching grade level, there are strategies in the teacher edition as well as online supports such as module reading support and videos. For students beyond grade level, there are extension activities such as webquests and aligned literature recommendations. For English learners, there are supports tailored to each level and online resources provide vocabulary practice, visual supports, and multilingual glossaries.

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. The materials provide different perspectives from locations around the world. However, cultural and linguistic perspectives from New Mexico are not present despite New Mexico having a very rich scientific background in the content of these materials. However, the materials are limited in directly exposing all learners to different cultural perspectives.

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 are limited in their inclusion of a culturally and linguistically responsive lens. The materials miss the opportunity of connecting students' cultural knowledge to the content. The materials highlight some females in the STEM careers section and in the photos and illustrations used within the text. However, female representation is rather limited when sports examples are used. The STEM careers feature a majority of males in these sections. There is also no representation of the impact New Mexico's scientific history has had on the content areas.

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 8. 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) of 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 that also offer strategies and supports for English learners in the teacher edition. Inspire Science offers a variety of modalities for technological engagement to include "PhET Interactive Simulations", "Webquests", and "Virtual Lab". Overall, McGraw Hill Inspire Integrated 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 grade 8 material lacks in the CLR sources and lacks in the support of science based samples regarding New Mexico.

Reviewer #: 50

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 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 throughout 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 both in print and online, including pre/post unit tests that can be modified. Also included are STEM challenges that expose students to the engineering and design process. The online platform has many resources available such as BrainPop videos and Phet interactives. 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 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 the McGraw Hill Inspire Integrated Science, Grade 8. The instructional materials provide a guided platform for teachers and students that is mostly aligned with the NM STEM Ready! standards. These instructional materials address the Performance Expectations, Disciplinary Core Ideas, Science and Engineering Practices, and the Cross Cutting 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, and online videos. Some of the guided scripts might be of benefit for new teachers. Accessing these resources can be cumbersome and not completely intuitive. The grade 8 materials do lack some cultural responsiveness and do not address the science-based learning opportunities we have in New Mexico.