2024 Instructional Material Summer Review Institute

Review Team Appraisal of Title

First Grade Science

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 Grade 1 Comprehensive Student Bundle, 6 Year Subscription	Publisher	McGraw Hill LLC
SE ISBN	9781266143205	TE ISBN	9780077007232
SW ISBN		Grade Level/Content	First Grade Science

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
46%

FOCUS AREA 6: CULTURAL AND LINGUISTIC PERSPECTIVES
Instructional materials represent a variety of cultural and linguistic perspectives.
Statements of appraisal and supporting evidence:

The materials provide many opportunities for student discourse but there is no evidence of culturally and linguistically responsive pedagogy. There is no evidence found to support the materials providing a well-rounded representation of images, stories or information for a broad range of demographic groups. There is also no evidence found to support students in making connections to real-life experiences and diverse cultural and linguistic backgrounds.

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 materials provide an overview as to where to find strategies and tools within the printed material and throughout the lessons to support students. This focus area is partially aligned as there is not a tie to multiple perspectives in a specific concept. The materials do not provide tools or resources that will support and supply multiple perspectives, interpretations or experiences. There is no evidence that the instructional materials engage students in critical reflection about their own lives in New Mexico and no ties to the present or the past.

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
90%

OVERALL ALIGNMENT
Materials align with the science standards overall.
Statements of appraisal and supporting evidence:

The instructional materials are fully aligned with the first grade NGSS based on the evidence the materials provide. However, the NM STEM Ready standard for first grade is only partially aligned. People working together to advance science and technology is addressed but specifically people of ethnic and social backgrounds in New Mexico are not addressed.

WAVES AND THEIR APPLICATION IN TECHNOLOGIES FOR INFORMATION TRANSFER
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 fully align with the first grade NGSS based on the evidence the materials provide. The materials provide an opportunity for students to engage in learning about waves and their application in technologies for information transfer by investigating light and sound waves. The instructional materials offer inquiry-based activities that allow students to observe light and sound, explore light and shadow, and understand how lighted objects support communication. The study of the DCI addresses electromagnetic radiation, where students will carry out investigations to determine the effect of placing objects in the path of a beam of light. There is also a STEM module project for students to engage in to support and extend the three-dimensional learning.

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES
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 are fully aligned with the first grade NGSS based on the evidence the materials provide. The materials provide an opportunity for students to engage in learning about structures and process. The students have the opportunity to engage with the standards through inquiry-based activities that explore plant structures, plant and light functions, comparisons of adult and young plants, and how plants grow and change. There is also a STEM module project for students to engage in to support and extend the three-dimensional learning.

HEREDITY: INHERITANCE AND VARIATION OF TRAITS
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:

These materials fully align with the first grade NGSS based on the evidence the materials provide. The materials provide an opportunity for students to engage in learning about inheritance and variation of traits. The students have the opportunity to engage with the standard through inquiry-based activities that explore plants and animals and their offspring, and how they go from limited structure to more robust structure based on age. The unit also includes activities that support the learning of the standards by including hands-on projects that teach about animals and plant parts and how they move. There is a STEM module project for students to engage in to support and extend the three-dimensional learning.

EARTH'S PLACE IN THE UNIVERSE
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 are fully aligned with the first grade NGSS based on the evidence the materials provide. The materials provide an opportunity for students to engage in learning about sky patterns. The students are tasked to examine the standard through inquiry-based activities that explore stars and planets. The unit also includes activities that support the learning of the standard by including hands-on projects that teach about the earth and the solar system. There is a STEM module project for students to engage in to support and extend the three-dimensional learning. However, the NM-specific STEM Ready standard for first grade is only partially addressed. Specifically, people working together to advance science and technology is addressed but people of ethnic and social backgrounds in New Mexico are not addressed.

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 are fully aligned with the first grade NGSS based on the evidence the materials provide. The materials provide an opportunity for students to practice all three areas of the engineering design. This takes place through the STEM module projects that can be found at the end of each unit. The projects require students to observe and gather data to solve a problem. They then draw or build a model, test the design, and make modifications as needed.

CCSS for ELA and Math Grade 1 NGSS
Materials align to the ELA and math standards identified in the first grade NGSS.
Statements of appraisal and supporting evidence:

The instructional materials are fully aligned with the first grade NGSS based on the evidence the materials provide. The materials provide the opportunity for students to incorporate ELA standards; these include writing about key details, retelling key details, reading grade level text, participating in shared writing projects and writing informative text. They are given the opportunity to participate in conversations with peers and adults in small and large group settings. However, no evidence was found for students to have the opportunity to engage with the math standards that should be aligned.

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
98%

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 materials integrate and describe the three-dimensional learning desired for NGSS. The materials include STEM connection activities for each lesson. These activities incorporate natural and designed phenomena, enabling all three dimensions to be included in each lesson. The materials provide opportunities for students to make sense of the phenomena by revisiting questions throughout the lessons and providing opportunities for discussion with peers and teacher.

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 materials provide assessment options, including print and online resources. All assessments include the three dimensions. Materials provide pre-assessments, and summative and formative assessments. Rubrics are provided for both students and teachers. Throughout the lessons, there are next steps provided for teachers to address when a student is working above, on or below grade level.

FOCUS AREA 3: TEACHER SUPPORTS
Materials include opportunities for teachers to effectively plan and utilize materials.

The materials provide a teacher toolbox that supports teachers in science content and checking in with students on their learning. They are also given an identifying pre-conceptions box to address student thinking by pointing out that which students might not be aware. Each module includes a timeline and a materials list, along with a checklist of items teachers should prepare for in advance. Teacher rubrics can support the grade level teams with common formative assessments. The materials provide teachers with strategies to support differentiated instruction and support with English learners. Teachers receive a materials list before each unit to ensure they are organized and prepared.

FOCUS AREA 4: STUDENT CENTERED INSTRUCTION
Materials are designed for each student's regular and active participation in science content.

The instructional materials provide teachers with a probe and interactive presentation to kick off each lesson. They also include periodic "Check Ins" throughout the lesson with a rubric, teacher explanation supports, and a teacher toolbox. These resources offer teachers various strategies to engage students in learning. Lessons start by presenting a phenomenon to students, sparking their curiosity and prompting them to ask questions. These questions are revisited throughout the unit. Each unit features scaffolded lessons designed to support the standards, building upon them in a clear and concise manner for students.

FOCUS AREA 5: EQUITY
Materials are designed for all learners.

The materials include an "Inspire all Students" activity for each unit. The instructional materials offer teachers highly descriptive suggestions on how to approach students who are above, on, or below grade level, as well as how to support gifted learners and bilingual students. This resource also offers teachers an explanation on how to support instruction on higher DOK levels. The materials include differentiated paths, providing teachers with supports to assist tier 1, tier 2 and tier 3 levels of instruction. The differentiated pathways provide a list of activities that can be used at all three levels. The materials also include an "Inquiry Rewind" resource that gives all students a chance to have the same experiences. The "Rewind" video includes step-by-step procedures and expected observations.

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
78%

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 materials give opportunities for students to engage in three-dimensional learning with all first grade science standards as listed from NGSS. The online materials provide a learning transfer strategy guide. This resource explains how each unit progresses and connects to previously taught skills, showing how students will further develop the current skill being taught. The NM-specific STEM ready standard for first grade is only partially aligned to these materials, and the connecting math standards are not present at all.

FOCUS AREA 2 WELL-DESIGNED LESSONS:
Instructional materials take into account effective lesson structure and pacing.
Statements of appraisal and supporting evidence:

The materials follow the same set up for each lesson. They begin with a module opener that includes phenomena. The lessons then move through the five Es (Engage, Explore, Explain, Elaborate, Evaluate) with probes, online activities, read alouds, and STEM projects along the way. All lessons are aligned with the content standards as well as assessments and assignments. The materials offer resources that support language objectives and help students acquire vocabulary using flashcards and online tools. Additionally, the materials include a glossary available in seven different languages. Each module provides opportunities for students to read, write, speak, and listen throughout.

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 materials provide teachers with a concise timeline for lessons, and also provide a flex plan in case teachers do not have the full time needed. Instructional strategies are provided. The instructional materials offer professional development videos that provide teachers with information on how to implement the various instructional strategies. Online components allow for teachers to assign assessments, assignments, read alouds and glossaries to support the student via technology. The online component also offers the teacher the ability to upload assignments from external resources such as Google Classrooms.

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 materials provide the teacher different types of assessments and the components can be used for assessments, including pre-tests and formative and summative assessments. Print materials provide "Check Ins", with rubrics for assignments and writing components. The materials also supply a rubric for all STEM module projects that can be found at the end of each unit. The online features provide all of the same assessment opportunities with an additional assessment tool that allows teachers to differentiate assessments and compile reports on each standard. The materials are only partially aligned with the NM-specific STEM ready standard for first grade. The aspect absent from this standard is the opportunity for students to explore the diverse ethnic and social backgrounds in New Mexico, and how these groups have collaborated to advance science and technology.

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 materials provide a resource called "Inquiry Rewind", which allows teachers to set up scaffolds for students and is adaptable to different needs. Professional learning supports for teachers are available and they allow teachers to learn new strategies for supporting different learners. Each unit has a letter to home that can be printed in seven different languages and informs the parents of what the students are learning and provides them with a family activity. The activity will enable families to assist their learners in engaging with concepts that will be covered in the upcoming unit of study.

FOCUS AREA 6 CULTURAL AND LINGUISTIC PERSPECTIVES: **Instructional materials represent a variety of cultural and linguistic perspectives.** *Statements of appraisal and supporting evidence:*
The materials provide many opportunities for student discourse but there is no evidence of culturally and linguistically responsive pedagogy. There is no evidence found to support the materials providing a well-rounded representation of images, stories or information for a broad range of demographic groups. There is also no evidence found to support students in making connections to real-life experiences and diverse cultural and linguistic backgrounds.
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 materials provide an overview as to where to find strategies and tools within the printed material and throughout the lessons to support students. This focus area is partially aligned as there is not a tie to multiple perspectives in a specific concept. The materials do not provide tools or resources that will support and supply multiple perspectives, interpretations or experiences. There is no evidence that the instructional materials engage students in critical reflection about their own lives in New Mexico and no ties to the present or the past.

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 #: 19
Background and experience:
Bachelor's degree in education includes a science endorsement. I also have a TESOL endorsement and a master's in educational leadership. Level III teaching license and K-12 administrator license. I have spent the last year as the district TOSA for science supporting science instruction in classrooms K through 12 as well as at the district level.
Professional summary of material:
Overall, these materials are very user friendly and grade level appropriate. They allow for each lesson to address every related component of the NGSS. There are Spanish materials provided online that include assessments in Spanish. I absolutely love the layout of each lesson as they begin with very relatable phenomena and go through different components, including hands-on activities and engineering practices, before coming back to the phenomena. They provide a space for student and teacher self-reflection. This material also gives many resources for differentiated instruction, and real time check-ins for student understanding. The online piece is hard to navigate. This material does a great job of providing all the components of science instruction. A shortcoming for this material is that there are no opportunities for the teacher to utilize the CLR lens, and it does not include strategies like notice and wonder charts or scientist circles. This material also does not address the math connecting standards.
Reviewer #: 21
Background and experience:
Teacher of 12 years in a 1st or 2nd grade General Education classroom. I hold a level II license with a TESOL endorsement and hold a master's degree in curriculum and instruction.
Professional summary of material:
Inspire Science instructional materials supply teachers with an excellent resource to teach the NGSS to the students in their classrooms. The materials provide well thought-out lessons that build upon student's background knowledge to lay a foundation to achieve proficiency in the science standards addressed for first grade. The instructional materials provide cross curricular opportunities by incorporating ELA concepts into lessons throughout the units. All units provide hands-on activities to further explore a phenomenon and provide students with investigations to gather and interpret data to support them in problem solving. Each unit includes STEM activities to increase critical thinking and reflections. Teachers are provided with supports for ELs and given strategies for differentiated instruction. Assessments and assignments can be given via technology and in English or Spanish. While this instructional material is well rounded to support the learning of NGSS, it still lacks the CLR lens. The materials also do not incorporate math standards within the units to support the students with their mathematical thinking. The online component is also not very user friendly and it is time consuming to find the resources and components needed. In general, the Inspire Science material would provide a starting point to lay a good foundation for the learning of the NGSS.