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	8th Grade OSE MS Student Notebook Bundle	Publisher	Activate Learning
SE ISBN	9781682319147	TE ISBN	9781682319178
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
	93%

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
	100%

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 highly align with the focus area of cultural and linguistic perspectives. The materials provide multiple methods for student collaboration and include phenomena and problems that are both local-scale and global-scale, representing a wide demographic group. Students have the opportunity to connect their prior experiences and diverse cultures with the phenomenon through eliciting student discourse and community feedback. The materials provide guidance to ensure each student has an equitable voice during discourse. The phenomenon for each unit in the materials was chosen based on national student interest surveys.

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 highly align with the inclusion of a culturally and linguistically responsive lens. The materials provide guidance to support students in reflection on how the phenomenon connects with themselves and their communities through various perspectives and interpretations. In addition, the materials provide guidance on navigating potentially culturally challenging topics. Specific New Mexican cultural relevance is included through indigenous perspectives on phenomenon such as Navajo and Mesoamerican.

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
92%

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

The materials align with the NM STEM Ready! science standards. The material covers the three dimensions through investigations, simulations, collaboration, peer review, and self reflection. Assessments include the three-dimensional standard being addressed. Throughout units, students encounter phenomena through inquiry based learning that culminates in final projects that prepare students for STEM career readiness.

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 materials align with the performance expectations and related components of contact forces and motion. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Students have opportunities to apply scientific ideas to develop solutions to a problem by creating an impact-resistant design. They conduct investigations on mass, force, and kinetic energy to construct a scientific explanation of contact forces through collisions with an emphasis on Newton's third law.

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 materials partially align with the performance expectations and related components of sound waves. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The materials represent sound waves in multiple modalities, such as models, simulations, and graphs, allowing students to understand how changes in wavelength structure affect function. Students are given opportunities to use technology to explore the computational aspects of frequency, amplitude, and pitch. However, the materials do not adequately cover digital signals, wavelengths, and wave models.

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 materials align with the performance expectations and related components of electrical, magnetic, and gravitational forces. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Students are asked to conduct investigations to observe how electromagnetic forces change in a magnetic field and how these changes are used in technology. They develop models of phenomena such as magnetic forces and gravitational forces in space, using cause and effect relationships to predict outcomes. Additionally, students construct oral and written arguments supported by scientific evidence to explain these 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 materials align with the performance expectations and related components of earth, the solar system, the galaxy, and space communication. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Students are tasked with investigating phenomena by using and developing models at various scales, including the moon's phases, eclipses, seasons, the solar system, and galaxies. They explain natural phenomena patterns such as time, space, and energy through cause and effect relationships.

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 materials align with the performance expectations and related components of genetics. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Students are provided with opportunities to obtain and evaluate information on chromosomes, cells, mutations, sexual and asexual reproduction, and the probability of traits using pedigree and Punnett models. They use cause and effect relationships to investigate how natural and selective environmental factors can affect inherited traits in offspring. Additionally, students have opportunities to learn how engineering advances and discoveries have improved outcomes in various industries.

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 materials align with the performance expectations and related components of natural selection. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Within the units, students are asked to create oral and write arguments based on scientific evidence, explaining how genetic variations of traits in a population, characteristic behaviors, or specialized structures can affect the probability of survival in a population 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 materials partially align with the performance expectations and related components of common ancestry. This unit clearly connects previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. Within this unit, students have opportunities to analyze and interpret fossils to determine patterns in common ancestry. However, the materials do not adequately demonstrate how similarities in embryological development across multiple species identify relationships in common ancestry.

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 align with the performance expectations and related components of engineering design. The expectation within this unit is for students to ask questions and define problems to develop possible solutions to an engineering design challenge, considering criteria and constraints established by consulting with stakeholders. Through this process, they analyze and interpret the data they collect to refine and improve their designs. Additionally, students may develop and enhance models of their designs.

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 materials align with the Common Core State Standards of English language arts for grades 6-8 and partially align with the Common Core State Standards of math in grades 6 - 8. The materials embed English language arts standards throughout all units, incorporating activities such as reading technical information, summarizing, citing sources, following procedures, writing scientific arguments, and evaluating claims. Multimedia sources are integrated into all units to enhance learning. Additionally, the materials incorporate math standards by including tasks such as plotting numerical data, summarizing graphical data, analyzing the relationship between independent and dependent variables using tables and graphs, and evaluating proportional relationships. However, the materials do not adequately cover square roots, cube roots, and linear equations such as y=mx+b.

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 highly align with the focus area of phenomena- or problem-based learning using a three-dimensional approach. Each unit in the materials integrates the NM STEM Ready! standards, which are appropriate for the grade level, and employs storylines with an inquiry-based learning approach. Every unit in the materials begins with a phenomenon that is meaningful and clearly demonstrates its alignment with the three dimensions of learning. This method ensures that students have the opportunity to engage deeply with the content, making connections between crosscutting concepts, science and engineering practices, and disciplinary core ideas.

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 highly align with the focus area of three-dimensional assessment. The materials include opportunities for students to have peer feedback, self-reflection, teacher feedback through rubrics, and multiple formative and summative assessment opportunities. Students have opportunities within the materials to use various ways to demonstrate mastery of the three dimensions, ensuring a comprehensive evaluation of their understanding and skills.

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

The materials align with the focus area of teacher support. The materials are consistently formatted with unit storylines, background knowledge for teachers, materials lists and safety protocols. In addition, detailed guidance for each lesson, instructions for using embedded technology, and assessment tools are included. However, the materials do not adequately provide teachers guidance on students who are at, approaching, or exceeding grade level expectations.

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

The materials highly align with the focus area of student-centered instruction. The lessons in the materials provide multiple opportunities for students to engage and collaborate, drawing from their prior knowledge and experiences. Each unit follows a phenomenon-based storyline that is meaningful to students, ensuring relevance and engagement. The materials include flowcharts and guidance on how units coherently connect with each other, facilitating a seamless learning experience.

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

The materials highly align with the focus area of equity. The materials are designed using universal design for learning principles, ensuring accessibility for all students. The materials include assessments that allow students to demonstrate mastery in multiple ways. Additionally, the lessons in the materials offer extension opportunities to engage learners at greater depth, accommodating for emerging multilinguals, students with modifications or accomodations, and advanced learners, which promotes inclusivity.

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
97%

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 highly align with the focus area of coherence. The materials address the full content of the grade-level standards by providing flowcharts, lesson diagrams, pacing guides, and teacher strategies that incorporate the four domains of language. The units establish clear connections between previously learned concepts, current topics, and future learning objectives, ensuring a coherent and integrated learning experience.

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

The materials partially align with the focus area of well-designed lessons. The teacher editions of the materials clearly outline the scope and sequence of skills and concepts. Each unit provides consistent layouts that demonstrate how concepts build upon one another. There is comprehensive guidance on implementing word walls and improving scientific vocabulary. However, while the materials address language objectives, they do not clearly show how these objectives tie to the content objectives.

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 highly align with the focus area of resources for planning. Teachers receive comprehensive guidance and pacing for each lesson within a unit. The three dimensions of learning are color-coded in the objectives and instructions, visually demonstrating how crosscutting concepts, science and engineering practices, and disciplinary core ideas are addressed. Lesson plans in the materials incorporate student discourse strategies, including modeling, facilitation, and support with sentence stems. Each unit of the materials includes multimedia resources such as simulations and videos. Additionally, the online platform is user-friendly for both teachers and students, enhancing accessibility and ease of use.

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 material aligns with the focus area of assessment. Scoring guides and rubrics are available for both teachers and students, providing clear criteria for evaluation. Each unit in the materials features a variety of formative and summative assessments to measure student progress, along with guidance on "what to look for or listen for" during these assessments. The online platform allows teachers to assign assessments to students, who can translate the content into multiple languages. However, the material does not include modified or advanced assessments to meet a variety of student needs and the language objectives for the assessments are not clearly defined.

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 material highly aligns with the focus area of extensive support. The materials provide re-teaching opportunities, small group and individual work, guidance on strategic groupings, sentence frames, and student-friendly word walls. Articles are manageable for students and the materials can be customized on the online platform. The materials foster student discourse by establishing consistent protocols used across all units in the materials.

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 highly align with the focus area of cultural and linguistic perspectives. The materials provide multiple methods for student collaboration and include phenomena and problems that are both local-scale and global-scale, representing a wide demographic group. Students have the opportunity to connect their prior experiences and diverse cultures with the phenomenon through eliciting student discourse and community feedback. The materials provide guidance to ensure each student has an equitable voice during discourse. The phenomenon for each unit in the materials was chosen based on national student interest surveys.

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 highly align with the inclusion of a culturally and linguistically responsive lens. The materials provide guidance to support students in reflection on how the phenomenon connects with themselves and their communities through various perspectives and interpretations. In addition, the materials provide guidance on navigating potentially culturally challenging topics. Specific New Mexican cultural relevance is included through indigenous perspectives on phenomenon such as Navajo and Mesoamerican.

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 #: 52

Background and experience:

Reviewer is a level III Pre K-12 Special Education teacher, with endorsements in psychology, reading, math, social studies, science, and TESOL. 22 years total of teaching experience: six years in preschool and elementary education and 16 years in special education/inclusion setting including college and graduate school teachings. Ph.D. in Educational Management, Master of Arts in Education major in Special Education, and a BA in Social Studies major in Behavioral Studies. Reviewer has participated and contributed to several curriculum and syllabus writing and reviews in the past at the college and graduate school levels.

Professional summary of material:

The Activate Learning OpenSciEd for 8th Grade highly aligns with the New Mexico standards. The instructional materials consist of a teacher edition, a student edition, and a student notebook which are available in English and in Spanish. In the teacher edition, it addresses the full content contained in the standards provided in the unit overview, unit storyline, the teacher background knowledge, performance expectations and core standards, learning plan snapshot and details, and a variety of assessments and references, which leads to a purposeful sequencing of the teaching and learning expectations and support teachers with instructional strategies and guide for students' development. The instructional materials integrate opportunities for students for interactive computer simulation investigations, and exposure to various discussion activities in groups, with a partner, and individually. The instructional materials also offer three-dimensional assessments that incorporate pre-assessments, formative, summative, peer feedback, and self-assessment. The lessons in the instructional materials provide multiple ways for all students to access content through alternate activities specified in the lessons and integrating the the Universal Design for Learning approach, which also allows the students a lot of opportunities for self-reflection that express their own experiences and culture. The instructional materials give students the opportunity to explore on the different diverse cultural perspectives, interpretations, and stories on several scientific concepts in the lessons and relate it to their own experiences and cultural background, which includes New Mexico culture, specifically about the Navajo and Mesoamerica.

Reviewer #: 53

Background and experience:

I am a Level II New Mexico educator with 5 years of experience teaching middle school science in New Mexico and Texas. I have a Bachelor's of Science in Geology and a Master's of Arts in Education both from the University of Texas at El Paso. My certifications include Texas 4 - 8 Science and New Mexico 5-9 with endorsements in Science, and TESOL.

Professional summary of material:

Activate Learning OpenScieEd is recommended for use in 8th grade classrooms in the state of New Mexico. This inquiry-based material takes an integrated approach and covers contact focus, sound waves, magnetism, earth in space, genetics, natural selection, and common ancestry. Each unit has a storyline that builds learning from previous lessons. Each storyline incorporates targeted and wide-ranging topics that encourage students to connect personally and globally with the content. There is a variety of learning modalities that meet the four domains of language and a variety of collaboration methods. The teacher edition, student edition, and student notebook are formatted consistently and are easy to use, and icons are used throughout to visually demonstrate the type of activity. The online platform is user friendly for the teacher and student; the student has the ability to translate the online platform into English, Spanish, Chinese, Arabic, or Korean. The materials include references to culturally relevant examples for New Mexico, including Mesoamerican and Navajo cultural perspectives of the earth in space.

Reviewer #: 54

Background and experience:

I am a Level 2 educator with 15 years of teaching experience. I hold a New Mexico level II teaching license with endorsements in the areas of science and social studies. I hold a Bachelor's Degree in Education from Ohio University.

Professional summary of material:

Activate Learning OpenSciEd is recommended for 8th grade science instruction in New Mexico. The materials are designed to provide students with a comprehensive and interactive science education that aligns with the Next Generation Science Standards (NGSS). The 8th grade materials cover a wide range of scientific concepts through inquiry-based learning and hands-on activities. The materials provide comprehensive teacher support, and focus on real-world applications and natural phenomena. The materials cover a range of topics such as light, soundwaves, magnetic and gravitational forces, genetics, evolution, climate changes, natural selection and human impact. Students are given multiple ways to show mastery through engineering design projects, simulations, peer-feedback, self-assessment, and summative and formative assessments. Students are given the opportunity to translate the online materials into several different languages. The materials offer diverse cultural perspectives and beliefs from around the world, in the US and Navajo Nation pertaining to phenomena in space.