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	7th Grade OSE MS Student Notebook Bundle	Publisher	Activate Learning
SE ISBN	9781682319130	TE ISBN	9781682319161
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
83%

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
62%

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 align with the focus area of cultural and linguistic perspectives. The materials provide different methods for student collaboration and include phenomena and problems that are both local and global, representing a wide demographic group. However, some students may not connect or relate to the chosen phenomena, which could affect their engagement and understanding.

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 do not fully align with the inclusion of a culturally and linguistically responsive lens. While they offer extended activities that include career narratives from a diverse range of individuals and three lessons that encourage students to share their different perspectives, they lack specific relevance to New Mexico. Additionally, the materials do not provide guidance on cultural sensitivity regarding race, religion, socioeconomic status, orientation, or views.

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
82%

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

The materials comprehensively align with the NM STEM Ready! science standards. The material covers the three dimensions of learning: crosscutting concepts, science and engineering practices, and disciplinary core ideas. These dimensions are explored through inquiry-based learning storyline units that utilize investigations, simulations, collaboration, peer review, and self-reflection. Assessments include the three-dimensional standards being addressed. Throughout the units, students encounter phenomena through inquiry-based learning, culminating in final projects that prepare them for STEM career readiness and build foundational science knowledge and skills.

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 well with the performance expectations and related components of chemical reactions. This unit demonstrates clear connections between previously learned concepts, current topics, and future learning objectives. The materials provide a foundational understanding that all matter is composed of atoms that chemically combine to create different structures. Students are provided with opportunities to analyze models of chemical compounds, interpreting data from hands-on experiments, and identifying similarities and differences in their experimental results. Moreover, materials provide opportunities for students to engage with reactants to predict possible products during chemical reactions.

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 partially align with the performance expectations and related components of metabolic reactions in organisms. Clear connections are evident between previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The material strongly covers cellular respiration and photosynthesis through inquiry-based learning, providing students with a solid understanding of these critical metabolic processes. However, the materials do not adequately address genetic factors, the growth and development of organisms, or the conservation of matter in metabolic reactions.

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 highly align with the performance expectations and related components of ecosystem interactions and competition. This unit demonstrates clear connections between previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The materials provide opportunities for students to analyze and interpret data on the cause and effect of diverse relationships among populations of organisms through various investigations.

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 materials partially align with the performance expectations and related components of ecosystems: matter and energy. Students are provided opportunities within the materials to connect between previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The material also offers opportunities for students to connect their observations through simulations and case studies to construct scientific explanations on the flow of matter and energy in organisms. However, the materials do not adequately cover the development of models to demonstrate the flow of energy in an ecosystem.

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 materials highly align with the performance expectations and related components of Earth resources and climate change. This unit of the materials demonstrates clear connections between previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The materials provide students with opportunities to use scientific principles to develop a community resilience plan by asking questions and writing scientific explanations based on evidence. Additionally, the material includes data analysis tasks where students examine the proportional relationships of cause and effect concerning human activity on the environment.

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 highly align with the performance expectations and related components of engineering design. This unit demonstrates clear connections between previously learned concepts, current topics, and future learning objectives through inquiry-based learning storylines. The materials encourage students to define criteria and constraints to design flameless heaters, which they test to evaluate competing solutions. Students analyze their data and compare results through several iterative, systematic processes to improve 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 II NGSS.

Statements of appraisal and supporting evidence:

The materials align with the Common Core State Standards for English language arts and math in Grades 6-8 NGSS. The material embeds 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, and analyzing the relationship between independent and dependent variables using tables and graphs. However, the materials do not include probability models, integers that represent very large or very small quantities, or mathematical inequality equations.

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 materials highly align with the focus area of phenomena or problem-based learning using a three-dimensional approach. Each unit of the materials integrates the NM STEM Ready! standards, which are appropriate for the grade level, and employs storylines with an inquiry-based learning approach. Each unit within the material begins with a phenomenon that is meaningful to students, clearly aligning with the three dimensions of learning.

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 peer feedback, self-reflection, teacher feedback through rubrics, and formative and summative assessments. The materials provide opportunities for students 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 highly 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, detailed guidance for each lesson, instructions for using embedded technology, and assessment tools.

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 provide opportunities for students to engage and collaborate, drawing from their prior knowledge. Each unit of the material 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.

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

The materials highly align with the focus area of equity and are designed using universal design principles, ensuring accessibility for all students. The materials include assessments that allow students to demonstrate their mastery in various ways. Additionally, the lessons in the materials offer extension opportunities to engage learners at greater depth, accommodating diverse learning needs and promoting 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
83%

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 within the materials establish clear connections between previously learned concepts, current topics, and future learning objectives, ensuring a seamless 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 align with the focus area of well-designed lessons. The teacher editions of the materials explicitly detail the scope and sequence of skills and concepts. Each unit of the materials provides consistent layouts that demonstrate how concepts build upon one another. There is comprehensive guidance on implementing word walls and improving scientific vocabulary. Additionally, the teacher edition of the materials includes written guidance and visuals of expected student work, providing clear examples for educators. However, while the materials partially address language objectives, they do not clearly show how language 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. The material allows the teacher to 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 in the materials. Lesson plans 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 provided in the materials is user-friendly for both teachers and students.

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 partially 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 material 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 materials provide an online platform that allows the teachers to assign assessments to students, who can translate the content into different 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 aligns with the focus area of extensive support. The instructional materials provide re-teaching opportunities, small group and individual work, guidance on strategic groupings, sentence frames, and student-friendly word walls. Articles attached in the materials are manageable for students, and the materials can be customized on the online platform. However, the materials do not offer explicit guidance on supporting students with varied needs such students with exceptionalities and emergent bilinguals.

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 align with the focus area of cultural and linguistic perspectives. The materials provide different methods for student collaboration and include phenomena and problems that are both local and global, representing a wide demographic group. However, some students may not connect or relate to the chosen phenomena, which could affect their engagement and understanding.
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 do not fully align with the inclusion of a culturally and linguistically responsive lens. While they offer extended activities that include career narratives from a diverse range of individuals and three lessons that encourage students to share their different perspectives, they lack specific relevance to New Mexico. Additionally, the materials do not provide guidance on cultural sensitivity regarding race, religion, socioeconomic status, orientation, or views.

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 7th Grade OpenSciEd Middle School Science instructional materials partially align to the New Mexico standards. The teacher edition, student edition, and student notebook are very helpful for teaching and learning options. The teacher edition specifically provides an overview, unit storyline, common core standards, pacing guide, content objectives and learning plan snapshot that are very helpful tools for both teachers and students. The language objectives, however, do not connect directly with the content objectives. The instructional materials also have limited content on differentiated strategies for emergent multilingual learners, CLD, and students of special populations, student's culture and diversity, and no evidence referencing to New Mexico language and culture.

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 hold a Bachelor's in Geology and a Master's in Education both from the University of Texas at El Paso. Certifications include Texas 4 - 8 Science, New Mexico 5-9 Science, and TESOL.

Professional summary of material:

Activate Learning OpenSciEd is recommended with reservations for use in 7th-grade classrooms in the state of New Mexico. This inquiry-based material adopts an integrated approach, covering chemical reactions, metabolic reactions, matter cycling and photosynthesis, ecosystem dynamics, and natural resources & human impacts. Each unit features a storyline that builds on previous lessons, incorporating both targeted and comprehensive topics to encourage students to connect personally and globally with the content. The instructional materials support various learning modalities and addresses the four domains of language through diverse collaboration methods. The teacher edition, student edition, and student notebook are consistently formatted and easy to use, with icons throughout to visually indicate the type of activity. The online platform is user-friendly for both teachers and students, offering translation capabilities into English, Spanish, Chinese, Arabic, and Korean. However, the instructional materials lack specific cultural relevance to New Mexico, which is a significant consideration for its effective implementation in the region.

Reviewer #: 54

Background and experience:

I hold a Level II license with 15 years experience teaching middle school science in New Mexico. Certification is in 5-9 with an endorsement in science and history. I hold a Bachelor's in Education from Ohio University.

Professional summary of material:

Activate Learning OpenSciEd is recommended with reservations for use in 7th-grade classrooms in the state of New Mexico. The materials are partially aligned with NGSS, ensuring that students are not only learning core scientific concepts but also developing essential skills in scientific inquiry and critical thinking. The materials offer a balanced exploration of essential scientific topics, and encompasses various scientific disciplines: Earth Science, Physical Science, Life Science and Engineering Design. Students engage in hands-on experiments, interactive simulation, and collaborative projects. The material is formatted consistently throughout each unit, making it easier for teacher and student navigation. The instructional material incorporates technology in the form of simulations that students can interact with to explore the content. The materials are lacking in supports for students that are struggling and students that are advanced.