2024 Instructional Material Summer Review Institute

Review Team Appraisal of Title

Kindergarten 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	Amplify Science Grade K Student Book (6 Pack) Bundle	Publisher	Amplify Education, Inc.
SE ISBN	9781644828205	TE ISBN	9798885700238
SW ISBN	9781643330594	Grade Level/Content	Kindergarten 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
99%

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
95%

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 inform culturally and linguistically responsive pedagogy by affirming students' backgrounds. They offer students with opportunities for creativity and innovation and open the door to multiple perspectives and cross-cultural understanding in the materials themselves and in the student discussions.

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 include tools as elements of promoting learning and equity in the science classroom to elicit and build upon students' prior knowledge, personal experiences, and cultural and social backgrounds. The instructional materials and resources relate the content area appropriately to diversity in culture and language, conceptual understanding, and higher engagement.

<u>Science Standards Review</u> - *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
99%

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

Overall, the materials align with the science standards. All the materials presented address the full content contained in the standards for all students appropriately for this grade level. The standards from NGSS are evident throughout the units in a variety of student investigations and student activities. Additionally, the materials provide a coherent balance of reading, writing, speaking and listening, math and the science content standards. There are clear and concise lesson standards for each unit that are posted in the teacher edition.

MOTION AND STABILITY: FORCES AND INTERACTIONS
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 material aligns to the motion and stability performance expectations through suggested discussion questions that evoke prior knowledge, investigations, hands-on activities, projects, different modalities of assessments, and writing prompts. Throughout the unit on Pushes and Pulls, the lessons prompt investigation of the forces of the motion of objects. The resources offer lessons to conduct tests on models of a pinball machine. The materials offer ideas about student reflection of the design of their machine in order to make necessary adjustments. At the end of the unit, the materials include suggestions on how to construct a foundational understanding of why thing move in different ways.

ENERGY
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 material aligns to the energy performance expectations through prompts to elicit student discussion that includes prior knowledge, investigations, hands on activities, projects, multiple modalities of assessments, and writing prompts. Throughout the units, lessons suggest students investigate how energy impacts different objects, animals, plants, and weather. The materials include ways to gather data and use models to apply understanding of energy. The materials offer suggestions to elicit feedback and reflection about energy and how it is applied to daily life.

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 material aligns to the molecules for organisms performance expectations through robust discussion questions that include prior knowledge, investigations, hands-on activities, projects, different modalities of assessments, and writing prompts. Throughout the units, students ask questions and define problems, they plan and carry out investigations, and they analyze and interpret data. Activities included assessing scale, proportioned quantities, and participation in hands on investigations to test the conditions of plant and animal survival.

EARTH'S SYSTEMS
Materials align to the earth and space science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.
Statements of appraisal and supporting evidence:

The material aligns to the earth systems performance expectations through discussion questions that include prior knowledge, investigations, hands-on activities, projects, different modalities of assessments, and writing prompts. Throughout the units, lessons prompt questions about defining problems, how to plan and carry out investigations, and how to analyze and interpret data about different earth systems. The materials include several opportunities to learn about weather scientists, how sunlight causes changes and temperatures on the earth's surface, and how to use models to represent, illustrate, and reflect on natural phenomena caused by earth systems.

EARTH AND HUMAN ACTIVITY
Materials align to the earth and space science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.
Statements of appraisal and supporting evidence:

The material aligns to the earth and human activity performance expectations through prompts that include prior knowledge, investigations, hands-on activities, projects, multiple modalities of assessments, and writing prompts. Throughout the units, lessons involve investigation of how living things need water, air, sunlight, and other resources from where they live to survive. The materials offer opportunities to investigate how human activity affects the systems in the natural and designed world.

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 material aligns to the engineering design activity performance expectations through questioning that includes prior knowledge, investigations, hands-on activities, projects, multiple modalities of assessments, and writing prompts. Throughout the units, lessons involve investigations about how motions and forces help in the design of machines. Lessons include designing and conducting investigations that provide students with data to help answer questions and reflect and improve their designs. To deepen understanding, included in the resource is an intentional sequence of learning to follow in the design of machines.

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

The materials align to the ELA and math standards identified in the kindergarten NGSS; ELA and math standards are integrated into them. They include grade level appropriate student readers and other activities that reinforce the learning goals of each unit. There are various opportunities for students to use mathematical grade level skills such as counting, measuring, cardinality, geometry, data, sorting, and graphs.

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 material is designed to develop deep science knowledge and understanding through the three dimensional approach. There are opportunities for students to show what they have learned by planning and conducting their own scientific investigation of a phenomenon. The various materials presented in the units are integrated within the three-dimensional NM Stem Ready! Standards through interdisciplinary progressions. There is a clear alignment of SEPs (science and engineering practices} , CCCs (crosscutting concepts}, DCIs (disciplinary core ideas), and CCSS for ELA and math. There is a focus on student understanding and development of key science practices, such as planning and carrying out investigations, analyzing and interpreting data, constructing explanations, and designing solutions to problems.

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 material provides many types of assessment for each lesson and guidance for teachers on each assessment. The assessments include learning goals, assessment opportunities, rubrics, differentiation strategies, individual concepts, elements of practices. The assessments are designed to work together in the process of student learning and accommodate different styles of student learning.

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

The materials include the unit lesson plans, the differentiation strategies, varied instructional supports, and resources for the unit, the lesson, and the individual activity level. The format of the teacher guide is clear and concise and the information is accessible.

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

The materials are well organized to allow students to actively participate in the science content. The resources offer suggestions for students to participate in whole group, small group, partner share, and work independently throughout each lesson. The materials provide opportunities for students to express their ideas with drawings, notes, writing, verbal agreement and discourse. Also included are many differentiation strategies throughout the lessons to provide evidence of understanding of the concepts and practices.

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

The materials are designed to meet the needs of all learners. The material provides differentiation for special needs students, English learners, culturally and linguistically diverse students, advanced students, and students who need more support. Teachers are encouraged to strategically choose partners for students with special needs in order to create positive and supportive student partnerships as a crucial first step in developing a classroom culture in which students feel confident and comfortable sharing their thinking.

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
98%

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:

All the materials presented address the full content contained in the standards for all students appropriately by grade level. The NGSS standards are evident throughout the units in a variety of student investigations and student activities. Additionally, the materials provide a coherent balance of reading, writing, speaking and listening, math, and the science content standards. This resource also includes cohesive and concise lesson standards for each unit that are conveniently posted in the teacher's edition.

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

The instructional materials include well designed lessons that present learning progressions to provide an overview of the scope and sequence of skills and concepts. The units enable students to build knowledge across disciplines each year, so that past learning is connected to new concepts, applied to new phenomena, and further developed in each successive year. The design of the assignments show a purposeful sequencing of teaching and learning expectations and the set of units are designed to completely address the performance expectations for this grade.

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:

Instructional materials provide a list of lessons in the teacher edition (in print or clearly distinguished/ accessible as a teacher's edition in digital materials), cross-referencing the standards addressed and providing an estimated instructional time for each lesson, chapter, and unit. Each unit and lesson contains the different standards (CCSS and NGSS) to be addressed throughout the lesson and the TE provides teachers with an estimated instructional time for each lesson, activity, and unit. Each lesson includes an introduction, objectives, performance expectations, hands-on activities, teacher-led discussion, materials, and different types of assessment.

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 materials provide a variety of assessments that measure learning progression called a Progress Build. The unit's Progress Build provides teachers and students with a clear roadmap for how understanding of the unit's anchor phenomenon is expected to deepen and develop over the course of the unit. The instructional materials support a consistent and coherent approach to a single unit of instruction by aligning instruction and assessment around standards-based learning goals. The materials also indicate how the learning experiences in the unit deepen with each successive lesson.

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 can be customized or adapted to meet the needs of different student populations. These lessons can be adapted to fit the needs of ethnically diverse students, English learners, students with disabilities, girls and young women, foster children and youth, and students experiencing poverty. The instructional materials presented provide equitable opportunities for intellectually stimulating, language-rich, and culturally relevant science and engineering education.

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 inform culturally and linguistically responsive pedagogy by affirming students' backgrounds. They offer students with opportunities for creativity and innovation and open the door to multiple perspectives and cross-cultural understanding in the materials themselves and in the student discussions.
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 include tools as elements of promoting learning and equity in the science classroom to elicit and build upon students' prior knowledge, personal experiences, and cultural and social backgrounds. The instructional materials and resources relate the content area appropriately to diversity in culture and language, conceptual understanding, and higher engagement.

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 #: 10

Background and experience:

Teacher of 13 years in a 1st and 2nd grade dual language education classroom. I hold a level III A Instructional Leader K-8 elementary license with endorsements in Modern and Classical Native Languages, Bilingual Education, and TESOL. I have a bachelor's degree in Elementary Education K-8 from the University of New Mexico and a Master's Degree in Curriculum and Instruction from Western Governor University.

Professional summary of material:

Amplify Science instructional materials provide teachers and students with great resources to teach and learn the New Mexico science content standards. The materials provide a coherent balance of reading, writing, speaking and listening, math, and the science content standards. The standards from NGSS are evident throughout the units in a variety of student investigations and activities. The materials provide well designed lessons that take into account effective lesson structure and pacing. The lessons provided build upon student's background knowledge to lay a foundation to achieve proficiency in the science standards addressed for the kindergarten grade level. The instructional materials provide teacher resources that support planning, learning, and understanding of the standards. The teacher edition materials provide a list of lessons with a wide variety of resources accessible for each lesson. The online lessons are easy to navigate and the option to print them is also available. A variety of assessments that measure learning progression of students is also available with differentiation strategies to meet the needs of all students. The materials inform culturally and linguistically responsive pedagogy by affirming students' backgrounds in the materials and in the student discussions. The instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language. Overall, the materials are highly recommended.

Reviewer #: 11

Background and experience:

I have been an educator for 17 years and I have taught multiple grade levels. I currently teach third grade and I am a dual language teacher, teaching the Spanish portion. I am the lead science content teacher at my school, and I hold an annual school wide science fair for Pre-K through 5th grade. I have a K-8 teaching license with a Bilingual Endorsement. I also have a Master's in Instructional Leadership and my Administrative License for the State of New Mexico. I have had the pleasure of attending professional development on the NGSS Science Content Standards, Making Sense of Science, and PBL (Project Based Learning).

Professional summary of material:

This instructional material has an emphasis and focus on instruction embedded with active student engagement and critical thinking. The instructional materials allow teachers to teach students to think like scientists and engineers while integrating the scientific principles and supporting student learning of concepts in all science domains. The instructional materials promote student learning experiences and have assessments that are integrated in the units. The instructional materials allow students to build an understanding through engagement with science and engineering practices. In these materials, students are encouraged to investigate through engagement, use prior knowledge, collect, and make sense of data and reflect on findings. The units and lessons build upon one another, and that they provide students with various opportunities to take what they've learned and apply it to the new unit, lesson, or student activity. I recommend this instructional material because it focuses on student engagement, student learning and student led activities based on real-world problems.

Reviewer #: Reviewer 12

Background and experience:

I have been an educator for the last 13 years. Academically, I have a Bachelor's degree in Computer Informatics and a Master's degree in Elementary Education. My teaching license in New Mexico has two endorsements, one in Bilingual Education and the other endorsement in Teaching English to Speakers of Other Languages. Currently, I am a second grade teacher in a bilingual school in my district. My experience in the classroom extends to teaching first, second, fourth, and fifth grade. I have attended multiple conferences and trainings related to the NGSS, Integration of Math and Science in the classroom, and professional learning courses that are focused on Science. My extensive experience teaching other grade levels and learning new ways to teach different subject areas has prepared me to look at teaching curriculum with a critical eye. Lastly, this is my third year working as a reviewer for the New Mexico Public Education Department; this job allows me to know more about all the aspects behind teaching materials and the needs of my students.

Professional summary of material:

The teaching materials include a wide range of teaching resources and tools that can accommodate all types of learners in the classroom. The material engages students to work in different group settings; it adapts to different learning styles; and it meets the needs of the students to learn the necessary science standards for their grade level. These teaching materials give opportunities to students to collaborate and investigate within the clear objectives in each unit and lessons. Additionally, each lesson is designed to evolve in the continuous flow of learning that builds a solid and strong understanding of science, math and engineering skills. I recommend this material as a result of the criteria that were met by the materials during the review process.