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	Amplify Science Grade 1 Student Book (6 Pack) Bundle	Publisher	Amplify Education, Inc.
SE ISBN	9781644828229	TE ISBN	979885700245
SW ISBN	9781643330600	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
97%

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 in the materials themselves and in the student discussions such as student-to-student discourse. There are plenty of partner activities and group work. For example, reading activities are followed by a student-to-student discussion where students share their insights and questions with each other and with the whole class. Through talking and developing a collaborative environment, students feel comfortable asking questions of one another and learning from each other. The instructional materials provide an Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds guide for teachers for each unit. This document includes tools and resources to relate the content area appropriately to diversity in culture and language.

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 and resources (student readers, investigations, interactive journals) that demonstrate multiple perspectives in a specific concept and provide quality and supportive materials for teachers so that every student has access to and benefits from deep and engaging science and engineering learning opportunities. The instructional materials address multiple ethnic descriptions, interpretations, or perspectives of events and experiences. The materials foster opportunities for students to participate by sharing, investigating, writing, thinking, and arguing to provide their personal experiences and to explain their events/perspectives on the given concept or topic.

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
96%

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

The instructional materials align with all grade-level performance expectations and first grade science standards through a three-dimensional instructional sequence. The instructional materials are designed and sequenced to build on the students' expertise and prior knowledge with the grade-level disciplinary core ideas (DCIs), science and engineering practices (SEPs) and crosscutting concepts (CCCs). The instructional materials align with the first grade science standards through consistent investigation, observation, practice, self-reflection and assessment. The instructional materials are embedded with student activities that are focused and integrated in the grade level appropriate science standards.

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 align with the physical science performance expectations and related components for waves and their application in technologies for information transfer. The instructional materials include a unit on light and sound that covers all of the science standards under waves and their applications. Throughout the unit, the materials provide investigations where sound can make objects or matter vibrate and vibrations that can cause a sound. The materials include grade appropriate text, interactive slides, on-demand videos, interactive notebooks, and various other useful resources.

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 instructional materials align with the physical science performance expectations and related components for the topic on Molecules to Organisms: Structures and Processes. The instructional materials include a unit on animals and defenses that covers all of the science standards under structures and processes. Throughout the unit, the materials provide investigations on how animals and plants use their natural structures to meet their needs for survival. The materials include grade appropriate text about different animals and how their body parts help them survive in their natural habitat. The instructional materials offer hands on activities through developing models and constructing explanations to explain how animals use their defenses to survive. The materials provide students with opportunities to develop a model that will protect a piece of clay using the information they learned about animal structures and how they use them for survival (cause and effect).

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:

The instructional materials align with the physical science performance expectations and related components for the topic of Inheritance and Variation of Traits. The instructional materials include a unit on animal defenses that covers all of the science standards under inheritance and variation of traits. Throughout the unit the materials provide investigations on how animals and plants and their offspring share the parent traits to survive in their natural habitat. The material explains how offspring have some characteristics like their parents; it also explains how some offsprings might need their parents to survive and some can survive on their own. The materials include grade appropriate text, lesson interactive slides, on demand videos, interactive notebooks, and resources on animals and their defenses.

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 align with the physical science performance expectations and related components for the topic on Earth's Place in the Universe. The instructional materials include a unit on Spinning Earth that covers all of the science standards under Earth's Place in the Universe. Throughout the unit, the materials provide investigations on the patterns in the sky observed from earth and the nature of earth's shape, position, and motion observed from space. The materials provide investigations on how to take on the role of sky scientist to understand why the sky looks different to one person than another depending on their position on earth. The materials include grade appropriate text, lesson interactive slides, on demand videos, interactive notebook, and many resources on Earth's Place in the Universe, through developing models, constructing explanations to communicate ideas, and how earth's rotation affects the different seasons. The materials provide opportunities to make predictions and observe patterns to understand what they see in the sky at certain times of the day.

ENGINEERING DESIGN

Materials align to the engineering design performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.

Statements of appraisal and supporting evidence:

The instructional materials align with the physical science performance expectations and related components for the topic on Engineering Design. The instructional materials include a unit on Light and Sound that covers all of the science standards under Engineering Design. Throughout the unit, the materials provide investigations on bright and dark areas through illustrations and text in the book, which include how to figure out that some light is needed to see and that all light comes from a source (compare and contrast). The materials offer investigations on how to take the role of engineers working to investigate light sources to create a dark area and a bright scene for a puppet show. The materials include grade appropriate text, lesson interactive slides, on demand videos, interactive notebook, and many resources on engineering design, through developing models, constructing explanations to communicate ideas on light sources. The materials provide opportunities to write explanations of how different materials led to different outcomes with light investigations and student experiments.

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 align with the CCSS for English language arts as they are related to reading and writing informational text. The investigations relate cause and effect relationships and provide opportunities for language, writing, and reading on the given topics. The instructional materials provide student activities such as reading informational text through the available student readers, writing in the investigation journals and graphic organizers, and using academic vocabulary that pertains to the content being taught. The instructional materials align to the CCSS for math practices but do not include direct math content in the materials.

Science Content Review- *Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the specific content area reviewed.*

Average Score
100%

FOCUS AREA 1: PHENOMENA-/PROBLEM-BASED AND THREE-DIMENSIONAL APPROACH
Instructional materials are centered around high quality phenomena and/or problems and require a three dimensional approach to make sense of the phenomena or to solve the problems.

The instructional materials provide an overview for each unit that includes the 3D statements that explain the unit targeted, 3D Learning Objectives, and how they apply in each unit and lesson. The materials provide integrated hands-on activities and teacher guided instruction, including project and modeling of different activities. The instructional materials provide appropriate materials to support students in becoming successful in their given activities. The materials provide opportunities for students to apply what they learn by developing models and constructing explanations to communicate their ideas on the natural phenomena.

FOCUS AREA 2: THREE-DIMENSIONAL ASSESSMENT
Assessments provide tools, guidance and support for teachers to collect, interpret and act on data about student progress toward the learning goals of the 3 dimensional standards.

The instructional materials provide teachers with actionable and diagnostic information about students' progress toward the three-dimensional learning goals for the unit, the grade, and the grade band. Assessments give opportunities to educators to monitor student progress in all three-dimensional standards and provide differentiation strategies for all types of learners. Assessments are grounded in each unit's Progress Build, which describes the way students' understanding of the unit content should develop and deepen through engagement with the unit's learning experiences. The materials provide a wide variety of assessments that include oral and physical responses as well as formative and summative assessments.

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

The instructional materials provide teachers with guidance that includes opportunities to effectively plan and utilize materials. The materials provide a unit overview with a wide variety of teacher supports that are easy to access and well organized. In the unit overview, it explains what is in the unit and how to give helpful insight into the specific topic of the unit. It also includes all the lessons in the unit, classroom management suggestions, technology opportunities, activity extensions, literacy supports and instructional suggestions. Each lesson provides a printable and online lesson guide with detailed information on the lesson.

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

The instructional materials are centered around student engagement. The materials provide opportunities to engage students' curiosity and participate from their prior knowledge and connects their learning to relevant phenomena and problems. The materials include opportunities for students to develop an understanding of their ideas and experiences based on the topic being learned. The materials provide the flow of lessons through the Progress Build tab where it describes the way in which students' explanations of the central phenomenon should develop and deepen over the course of a unit to keep student engagement throughout the unit.

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

The instructional materials and assessments are designed in an accessible and flexible manner, allowing choice by students. The lessons provide multiple means of engagement, representation, action, and assessment. The materials also include multiple ways for all students to build and reflect on science knowledge and includes multiple ways for all students to access content and opportunities for student self-reflection. The materials provide differentiation strategies in each lesson to provide extensions and opportunities for all students to engage in learning. The materials provide a Universal Design for Learning guide that gives teacher strategies and information to provide students with multiple ways to access the content.

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:

The instructional materials address the students' abilities to meet all grade-level performance expectations and first grade standards through a three-dimensional instructional sequence. The instructional materials are designed and sequenced to build on the students' expertise with the grade-level disciplinary core ideas (DCIs), science and engineering practices (SEPs) and crosscutting concepts (CCCs). The instructional materials support students to show mastery of each standard via multiple activities. The units are designed to address the performance expectations for first grade. The units allow students to build knowledge across disciplines.

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 provide a teacher edition that presents the learning progressions of the scope and sequence of skills and concepts in the unit overview. Each unit has a unit overview that explains the progression through the lessons and the purpose of each lesson as well as the learning expectations for students. Each lesson has a lesson guide that explains the progression between the activities in the lesson. There is one unit that is about investigation, one about modeling, and one on design. The design of the assignments shows a purposeful sequencing of teaching and learning expectations. The instructional materials focus on the students repeatedly planning, designing, and testing solutions to a problem.

FOCUS AREA 3 RESOURCES FOR PLANNING:
Instructional materials provide teacher resources to support planning, learning, and understanding of the New Mexico Content Standards.
Statements of appraisal and supporting evidence:

The instructional materials provide teachers with a variety of resources that support teacher planning, student learning, and student understanding of the NM content standards. The instructional materials provide a clear and concise list of lessons in the teacher's edition that clearly state what standards are covered in the unit (Standards at a Glance) and each lesson has an estimated time of instruction delivery for each component of the unit. The instructional materials provide lesson slides for each lesson that have annotations to support the teacher with instructional strategies to help guide students' academic development. The annotations include lesson purpose, suggested teachers talk, teacher actions, on-the-fly assessment, and student possible responses. The instructional materials support teachers with differentiation strategies and an assortment of instructional supports and resources in each unit, lesson, and individual activity level to meet the needs of students and help guide the students' academic development throughout the lessons.

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 all student progress with alignment in instruction to focused, meaningful, and standards-based learning goals through the use of instructionally embedded, multi-modal assessment opportunities and carefully sequenced progress builds. The instructional material ensures that every student is achieving the level of understanding required by each unit and preparedness for the next one. The materials include an assessment chart that includes the standard, the element, and the assessment opportunities and what lesson they can be found in with a description of each assessment. The teacher edition includes an assessment system section that describes each formative and summative assessment, how it aligns to each standard and lesson, and how it can be modified to meet the needs of all students.

FOCUS AREA 5 EXTENSIVE SUPPORT:
Instructional materials give all students extensive opportunities and support to explore key concepts.
Statements of appraisal and supporting evidence:

The units are designed to meet the needs of different student populations and diverse learners. The instructional material provides rigorous yet accessible science instruction for all students. Each lesson is planned to provide multiple entry points for students, and to enable all students to be successful with all of the activities. The lessons and activities can be customized or adapted as needed. The instructional materials provide a differentiation section in each lesson that supports teachers by providing embedded supports for diverse learners with listed strategies to meet the needs of different student populations.

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 in the materials themselves and in the student discussions such as student-to-student discourse. There are plenty of partner activities and group work. For example, reading activities are followed by a student-to-student discussion where students share their insights and questions with each other and with the whole class. Through talking and developing a collaborative environment, students feel comfortable asking questions of one another and learning from each other. The instructional materials provide an Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds guide for teachers for each unit. This document includes tools and resources to relate the content area appropriately to diversity in culture and language.

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 and resources (student readers, investigations, interactive journals) that demonstrate multiple perspectives in a specific concept and provide quality and supportive materials for teachers so that every student has access to and benefits from deep and engaging science and engineering learning opportunities. The instructional materials address multiple ethnic descriptions, interpretations, or perspectives of events and experiences. The materials foster opportunities for students to participate by sharing, investigating, writing, thinking, and arguing to provide their personal experiences and to explain their events/perspectives on the given concept or topic.

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:

I am a 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 students' 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:

My professional summary of the instructional materials I have reviewed is that they have an emphasis and focus on instruction embedded with student active 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 assessments are integrated in the units. The instructional materials allow students to build an understanding through engagement with science and engineering practices. In these materials, there are opportunities for students 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 provide students with various opportunities to take what they have learned and apply it to the new unit, lesson, or student activity.

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:

My professional summary of the Amplify Science materials that I have reviewed is that the teaching materials include a wide range of teaching resources and tools that can accommodate all types of learners in the classroom. The materials engage 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 offer opportunities for 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.