2024 Instructional Material Summer Review Institute

Review Team Appraisal of Title

Fifth 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 5 Student Book (6 Pack) Bundle	Publisher	Amplify Education, Inc.
SE ISBN	9781644828304	TE ISBN	9798885700283
SW ISBN	9781643330648	Grade Level/Content	Fifth 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
94%

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
78%

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

Individual student books provide a collection of images, stories, and information representing a broad range of demographic groups that do not make generalizations or reinforce stereotypes. There is a variety of cultural and linguistic perspectives within the reading books provided. Instructional materials address multiple ethnicities in Engineering Clean Water with one example, but it is not found in the other books.

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:

Although instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language, there is no evidence in the instructional materials, including tools and resources, that relate to the content area appropriately to diversity in New Mexico's culture and language.

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
94%

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

The materials align with the NGSS overall as seen in the numerous charts, graphs, simulators, complex text, investigations, and the research and writing projects. Every lesson has an overview and includes how the lesson and activities are aligned to the standards. Coherence flowcharts make the progression of lessons easy to follow.

MATTER AND ITS 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 materials align with the PEs and related components by offering instruction on how to create models, engage with simulators to visualize proportions and scale, and investigate to understand the interactions between liquid water, wind, and water vapor. The Earth System Kit individual student books provide a collection of images, stories, and information about matter and its interactions.

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 materials align with the physical science performance expectations and related components by using previous knowledge to synthesize gravitational force and gravity of earth. The resource offers opportunities for students to engage in scientific arguments about force and its interactions. There are also opportunities to make observations using a model to investigate the cause of patterns.

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 materials align with the PEs and related components by including the anchor phenomena that emphasizes the flow between animals and the molecules in their bodies. Lessons include opportunities to study the food web and understand how the food transforms animals such as the crocodile.

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES
Materials align to the life science performance expectations (PEs) and related components (DCIs, SEPs, CCCs, CONNs, and NM Standards) for this focus area.
Statements of appraisal and supporting evidence:

The materials align with the life science PEs and related components in various ways. The resources offer ways to engage and visualize with online models about how plants get their food. An activity involves writing a scientific argument using a claim supported with evidence. Prompts are available to discuss food webs and flow of energy and matter within a system.

ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS
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 PEs and related components by offering to students to read case studies and ask questions about the role of nutrients in the ecosystem. The materials offer students opportunities to engage in discussion using science words in the book and discussing decomposers and their role in cycling matter and energy transfer in an ecosystem. There are also opportunities to reflect, write, and explain how animals in a rainforest grow and thrive within the rainforest system.

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 materials align with the earth and space performance expectations and related components by using think-pair-share and write to discuss distance from earth, sun, and stars when given an investigation question. The resources include the use of scientific language for students to learn how to argue and express themselves using scientific language. There are opportunities to engage with the scale tool to visualize and investigate how big objects are in space.

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 materials align with the earth and space performance expectations and related components by including reading activities and ideas to prompt students to think about earth systems and how the systems interact with one another. The resources include digital models to develop an understanding of water at the nanoscale. One activity offers an illustration and then prompts students to identify, label, and write a caption of the earth's systems interactions depicted.

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 materials align with the earth and science PEs and related components via an activity that asks students to read a restoration case study of Yellowstone National Park. The case study demonstrates effective human activities in vegetation to restore and protect the ecosystem. The lesson involves synthesizing ideas about the water shortage and connecting this concept to new learning.

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 engineering design performance expectations and related components by offering an activity to design a possible solution to a problem giving constraints and criteria for success. One activity involves a text called "Water Shortage, Water Solutions" and, after reading it, the resource suggests that the teacher helps students synthesize ideas about water shortages and how the improvement of technologies have contributed to solutions for water shortages across the globe.

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 materials align with the ELA and math standards identified by offering students multiple opportunities to identify, synthesize, read, write, share, use evidence to support a claim, and discuss with peers throughout each of the lessons. Throughout the resources there are graphs, models, simulators, calculation activities, analysis activities, algebraic activities, and observation of the nanoscale used.

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 are centered around a high-quality phenomena with a three-dimensional approach. Throughout the units, there are opportunities to engage in small group or whole group discourse. The phenomena found in nature and design are helpful for students' learning and contribute to their understanding.

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 different forms of assessment, including digital assessments (simulators), discourse with peers, verbal assessments, and written assessments. There is evidence of assessment opportunities such as teacher led discussion, pre-unit assessments, and check for understanding pages in the student notebooks, as well as peer critiques.

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

The instructional materials provide teacher support via a list of supplies and additional guidance on how to support instruction and activities in a safe manner. In each unit, there are references regarding the applications that can be used. The materials and assessments include teacher guidance, additional support, and differentiation.

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

The instructional materials provide students access to all online materials and science tools. The resources include options of English or Spanish versions to accommodate specific language needs. "Eliciting and leveraging students' prior knowledge, personal experience and cultural backgrounds" contains valuable information for eliciting student knowledge.

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

The online bilingual option gives students the ability to learn in their most proficient language. The materials provide extensions such as hands on research, paired reading, visual aides, videos, vocabulary, charts/graphs, and a multilingual glossary. All units are created using the universal design for learning principles and guidance.

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
89%

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 lessons and activities are designed, aligned, and structured to aid in understanding the scientific phenomena. However, while the instructional materials address most of the content contained in the standards by grade level, the content relevant to New Mexico and about New Mexico is not available.

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

Each unit includes a comprehensive scientific explanation of the reasoning behind the unit. It includes chapters with lessons aligned to the standards, a glossary, printable resources, unit map, science background, and assessment systems. There is also a section that identifies what to put on the classroom wall that aids in language acquisition.

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 lesson at a glance section includes a list of activities such as explanation of objectives, slide projections, helpful links, and suggested time per activity. The resources offer a comprehensive explanation of key concepts that aid in academic development. The materials also include a list of all the science applications in the teacher edition as well.

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:

Assessments come in the form of written, verbal, simulated, and other impromptu ways within the instructional materials of each unit. Data is collected and the teacher has the option to offer students feedback based on their discussion and discourse. The units provide formative and summative assessment options. Possible responses are available to spark student writing. The materials provide score guides for assessing student learning and performance.

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

Each unit has NGSS information for parents and guardians. Handouts inform parents of what their student will be learning in that particular unit and gives unit summaries that demonstrate how students engage in three-dimensional learning to answer and solve real-world questions and problems. Family connection homework informs parent/guardians about key concepts the students are learning. There is also a document linked with differentiation strategies for ELs. The online progaram is also accessible in Spanish.

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

Individual student books provide a collection of images, stories, and information representing a broad range of demographic groups that do not make generalizations or reinforce stereotypes. There is a variety of cultural and linguistic perspectives within the reading books provided. Instructional materials address multiple ethnicities in Engineering Clean Water with one example, but it is not found in the other books.

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:

Although instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language, there is no evidence in the instructional materials, including tools and resources, that relate to the content area appropriately to diversity in New Mexico's culture and language.

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 #: R16

Background and experience:

I am an administrator with a MEd. in Secondary Education/Administration and a BA in Communication Studies with a minor in English. I hold a Level III license and have been in the education field for 16 years. I participated in the writing of the NMPED Writing Standards and Instructional Scope. Additionally, this is my third year reviewing instructional materials.

Professional summary of material:

The resource reviewed is recommended for New Mexico teachers and districts. It is a comprehensive set of materials that gives teachers a new perspective of teaching Science. The materials are interactive and offer a variety of assessments and progress monitoring to address all students' needs. In regard to cultural and linguistic responsiveness, this resource provides materials that engage students in critical reflection about their own lives and societies to facilitate learning. EL, gifted, advanced, and special needs students' accommodations and modifications are addressed within this material. Although only available online, all materials are offered in PDF form.

Reviewer #: 17

Background and experience:

I have a BA in Spanish Philology and Communication & Media, MA in Education and am working towards my PhD. I am a Level III teacher with 8 years of teaching experience. I taught in Spain for about 4 years before working in New Mexico. I worked in the special education department as a reading and math interventionist. Currently I am an ELL coordinator in my school.

Professional summary of material:

The Amplify Science - 5th grade material provides a robust and engaging framework for teaching science. Its integration of hands-on learning, digital tools, and literacy components ensures that students are given opportunities to not only learn scientific concepts but also develop essential skills for understanding and exploring the natural world. The resource alignment with NGSS and its emphasis on inquiry-based learning prepare students for future scientific learning and thinking.

Reviewer #: 18

Background and experience:

I have been a New Mexico public school teacher for 17 years. I hold a master's degree in education with a focus on reading, language and culture and a BA in education. I am a Level III-A, Instructional Leader K-8 elementary teacher with an endorsement in bilingual education. I have completed the Administration Leadership Development (ALD) program. I taught in elementary and middle school settings. I have experience in teaching 4th and 5th grade dual language framework, middle school science, math, and algebra, and bilingual education.

Professional summary of material:

The instructional materials in Amplify Science 5th grade are comprehensive and cohesive. I recommend the resource for adoption. The instructional material is structured and designed to follow a scientific phenomenon, NGSS and three-dimensional learning. The lessons and activities are well planned out and are cohesive with one another. The instructional materials support student learning through the incorporation of multiple learning strategies (i.e. discussions, reflections, small group, hands-on work, videos, projections, slides, digital simulations, synthesizing information and sharing out ideas). These strategies allow opportunities to check for understanding and mastery. The instructional material does engage students in critical reflection about their own lives and society. However, it does not include cultures past and present in New Mexico.