Review Team Appraisal of Title – K-12 Science Education

This information is provided for local school boards and governing authorities of charter schools to consider in their selection process to meet the needs of their student population.

Text Title:	Elevate Science Grade K	Publisher:	Pearson Education
Course:	Science	Grade Level:	K
SE ISBN:	9780328989294	TE ISBN:	9780328925100
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards
Reviewer # and Section 1 Total: #4 TOTAL 97.7%   #5 TOTAL 90.3%   #6 TOTAL 93.1%
Average Score: 93.7%

Review Team Assessment of material's compliance with Section 1:
The Teacher Edition's information is presented clearly and is easy to follow. Students are asked to plan, carry out and explain results of investigations and procedures. Students also have numerous opportunities for hands-on modeling to solve engineering problems. An example of this is working with multiple objects to change motion with a push or a pull and designing a way to keep sunlight off their head. Real world phenomena is presented to students in age appropriate examples to better assist them in making and building upon connections. For example, to explore how and why wind blows, students stand outside and make observations regarding wind to generate predictable patterns of movements. Identifying Disciplinary Core Ideas (DCIs) correlations was difficult compared to the grade 1-3 curriculum. Several tasks and projects expect students to engage in rigorous thinking. Many of the activities and/or questions appear simple based on how they are worded, such as through the use of the word "tell," but can be extended to a higher Bloom's Taxonomy by encouraging students to use evidence. For example, students are asked to talk with a partner and simply "tell" why their sail shape is best. This task does not require students to "justify" using evidence to support their depth of thinking. Students also plan and draw a design, but at times are not asked to test it out.

SECTION 2 Publisher's Criteria
Reviewer # and Section 2 Total: #4 TOTAL 88.5%   #5 TOTAL 92.3%   #6 TOTAL 96.2%
Average Score: 92.3%

Review Team Assessment of material's compliance with Section 2:
This curriculum provides more than a sufficient amount of materials and concepts to teach throughout the school year. The concepts are age appropriate and provide relatable and engaging examples. One example is students plan and build a park that supplies needs for plants and animals that live there. Through the Learning Progressions, students are able to make connections and build the basis for upcoming years. Students are able to build on these skills through repeated opportunities to interact with the content through various modalities. Various modalities include, crossing items off, underline, written responses, drawings, design, model, dramatize concepts and discuss findings. Additional leveled texts are referenced, but samples were not provided for review. The given photographs of people include multiple genders, ages and ethnicities of various backgrounds. Additional cultures were not referenced in the texts, but could have been enhanced by using examples of actual scientists from different cultures around the world for the Career Connections. At times, in the Teacher Edition, teacher guidance is limited to just a few questions they can ask students and the answer, rather than the facilitation of a class or small group discussion.

Reviewer Comments
Reviewer #: 4   Reviewer Background: 17 years of experience, in 2nd-5th grade
Comments: Vocabulary words are highlighted and reviewed throughout the unit.

Reviewer #: 5   Reviewer Background: 25 years of experience, in 1st-5th grade
Comments: Some tasks required use of higher level thinking skills in order to complete required expectations.

Reviewer #: 6   Reviewer Background: 7 years of experience, in 4th grade
Comments: Visuals consist of cartoons and real pictures. At the beginning of each new concepts there are "I can" statements for what students can and should do.

Review Team Appraisal of Title – K-12 Science Education

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Text Title:	Elevate Science Grade 1	Publisher:	Pearson Education
Course:	Science	Grade Level:	1
SE ISBN:	9780328989300	TE ISBN:	9780328949175
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards
Reviewer # and Section 1 Total: #4 TOTAL 95.6%   #5 TOTAL 92.5%   #6 TOTAL 90%   Average Score: 93% Review Team Assessment of material's compliance with Section 1: Throughout the curriculum, all of the Disciplinary Core Ideas (DCIs), are evident in both the Teacher Edition and Student Edition through various tasks and activities with an emphasis of the Cross Cutting Concepts of Patterns. Multiple modality opportunities for students to express their knowledge and understanding regarding the content are present. Some examples include: verbal discussions about sound and vibrations, building an instrument from given materials, draw what you see in the day and night sky and act out something you like to do in your favorite season.   Ample opportunities for students to explore scientific procedures and investigations are given. This gives students the chance to use authentic vocabulary to make observations, inferences, create a plan, and write their own questions to generate a model. When conducting an investigation, students can use easily accessible everyday materials such as, seeds, plastic cups, flashlights and balloons. There are some opportunities for students to write, but are limited to short answers, yet they can be enhanced to increase rigor. Technology is embedded within the curriculum with examples such as videos, interactive games, and research opportunities. Technology acts as a way to support and enhance the curriculum and given topics. In the curriculum there is some opportunity for students to increase their level of understanding through Bloom's Taxonomy, however some tasks are simplified despite the grade and use verbs such as, "put an X or circle," "draw," and "tell."

SECTION 2 Publisher's Criteria
Reviewer # and Section 2 Total: #4 TOTAL 92.3%   #5 TOTAL 96.2%   #5 TOTAL 96.2%   Average Score: 94.9% Review Team Assessment of material's compliance with Section 2: This curriculum includes grade level appropriate examples through all of the Learning Progressions with reference to current and future technology. Various forms of assessment are included in the curriculum through the use of multiple choice, short answer explanations, circle or cross out tasks, true/ false statement choice, and investigations. These assessments are both used for formative and summative purposes. The curriculum includes the Error Analysis to assist the teacher in guiding students' understanding and correction of misconceptions. Technology use is present to support teachers and students, it is embedded in the curriculum to supplement the introduction of a new concept or given phenomena. The curriculum needs more specific suggestions on how to aid struggling students with concepts for better understanding to assist teachers in helping students become proficient.

Reviewer Comments
Reviewer #: 4   Reviewer Background: 17 years of experience, in 2nd-5th grade Comments: Materials in the curriculum were balanced across the three dimensions and with the reading and writing activities.

Reviewer #: 5   Reviewer Background: 25 years of experience, in 1st-5th grade
Comments: In this curriculum, there was no reference to New Mexico men and women and the advancement of science and technology.

Reviewer #: 6   Reviewer Background: 7 years of experience, in 4th grade
Comments: Includes engaging visuals and "UEningeer IT!" activities for teaching the skill of problem and solution to students through engineering processes. Limited opportunities for students to advance through higher levels of Bloom's Taxonomy due to simplistic language of task such as, "draw," "tell," and "explain."

Review Team Appraisal of Title – K-12 Science Education

This information is provided for local school boards and governing authorities of charter schools to consider in their selection process to meet the needs of their student population.

Text Title:	Elevate Science Grade 2	Publisher:	Pearson Education
Course:	Science	Grade Level:	2
SE ISBN:	9780328989317	TE ISBN:	9780328949182
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards
Reviewer # and Section 1 Total: #4 TOTAL 95.95%   #5 TOTAL 96.5%   #6 TOTAL 93.5%

Average Score: 95.3%

Review Team Assessment of material's compliance with Section 1:
Throughout the curriculum, all Disciplinary Core Ideas (DCIs) are present and evident in both the Teacher Edition and Student Edition. Regarding Bloom's Taxonomy, there are several opportunities for level 2 and 3, however many of the Scientific and Engineering Practices (SEP) ask students simply to "act it out," rather than having students synthesizing their connections to be more rigorous. Students are introduced to several career connections tied in with the science standards. Some of these careers include: a botanist, environmental engineer and a map maker. One weakness is students are provided with information rather than finding or researching it independently. The curriculum contains opportunities for use of technology through videos and internet research. One component requires the teacher to utilize a "wiki," and set up for students to access.

SECTION 2 Publisher's Criteria
Reviewer # and Section 2 Total: #4 TOTAL 96.15%   #5 TOTAL 92.31%   #6 TOTAL 92.31%

Average Score: 93.59%

Review Team Assessment of material's compliance with Section 2:
This curriculum includes clear and organized Learning Progressions that are grade level appropriate. There are multiple citations within the Student Edition that provide safety guidelines and warnings while conducting scientific procedures. For example, "be careful when handling scissors" and "wash your hands after collecting living and nonliving things." Assessments include an Error Analysis in the Teacher Edition to help guide students in evaluating their understanding and correcting any misconceptions. The curriculum is limited in providing multiple cultural perspectives based on the given citations which means it did not reference any different cultures and/or languages.

Reviewer Comments

Reviewer #: 4   Reviewer Background: 17 years of experience, in 2nd-5th grade
Comments: Each unit involves a "Quest" where students are answering a real life question through a series of activities spread throughout the unit.

Reviewer #: 5   Reviewer Background: 25 years of experience, in 1st-5th grade
Comments: Questions based on observation are frequently based on given information, instead of students doing the solving of research.

Reviewer #: <u>6</u>   Reviewer Background: 7 years of experience, in 4th grade
Comments: Despite opportunity for some tasks to be at a level 2 or 3 of Bloom's, several tasks were simplified and did not require higher level thinking or depth of knowledge.

Review Team Appraisal of Title – K-12 Science Education

This information is provided for local school boards and governing authorities of charter schools to consider in their selection process to meet the needs of their student population.

Text Title:	Elevate Science Grade 3	Publisher:	Pearson Education
Course:	Science	Grade Level:	3
SE ISBN:	9780328989324	TE ISBN:	9780328949199
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards
Reviewer # and Section 1 Total: #4 TOTAL 97.13%   #5 TOTAL 99.11%   #6 TOTAL 95.99%   Average Score: 97.41% Review Team Assessment of material's compliance with Section 1: Throughout the curriculum, there are many opportunities for students to engage their thinking in both level 2 and 3 of Bloom's Taxonomy. Some examples ask students to design and evaluate their own thinking while also defining a problem, asking a question, making a model and evaluating the results and possible improvements. The curriculum provides, in the Teacher Edition, differentiation for students who may be struggling with the content, as well as those ready to advance their understanding and skills through extension activities. Also, embedded throughout the Teacher Edition is support for EL learners providing the teacher with suggestions for how to meet students' language needs based on their English proficiency. In addition, sample exemplars and rubrics for assessments are included, yet mainly act as an answer key for the assessment. Assessments are included in the Student Edition Workbook. All Disciplinary Core Ideas (DCIs) were present and evident in both the Teacher Edition and Student Edition.

SECTION 2 Publisher's Criteria
Reviewer # and Section 2 Total: 1. #4 TOTAL 92.31%   2. #5 TOTAL 92.31%   3. #6 TOTAL 96.15%   Average Score: 93.59% Review Team Assessment of material's compliance with Section 2: This curriculum and its content is viable for the school year and content is appropriate for the designated grade level. Throughout the Teacher Edition, Learning Progressions are outlined, organized and easy to follow for teacher and student progression through the content. Students have multiple opportunities to demonstrate their thinking and level of understanding across different units through varied assessments. The varied assessments include, Performance Based Assessments where the students make a plan, build a model, make observations, and evaluate their solution in addition to short answer and multiple choice questions. Technology is used to support the concepts, but does not drive the curriculum through the use of online research, videos, e-texts, songs, and games.

Reviewer Comments
Reviewer #: 4   Reviewer Background: 17 years of experience, in 2nd-5th grade Comments: Student Edition was well organized, colorful and engaging. Reviewer #: 5   Reviewer Background: 25 years of experience, in 1st-5th grade Comments: Teacher Edition was easy to follow. Reviewer #: 6   Reviewer Background: 7 years of experience, in 4th grade Comments: Various ways for students to express knowledge and understanding of concepts.

Review Team Appraisal of Title – K-12 Science Education

This information is provided for local school boards and governing authorities of charter schools to consider in their selection process to meet the needs of their student population.

Text Title:	Elevate Science Grade 4	Publisher:	Pearson Education
Course:	Science	Grade Level:	4
SE ISBN:	9780328989331	TE ISBN:	9780328949205
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards

Reviewer # and Section 1 Total: #4 TOTAL 91% #5 TOTAL 91%   #6 TOTAL 94%
   Average Score: 92%

Review Team Assessment of material's compliance with Section 1:

Assessments provided for this grade were more comprehensive than at other grade levels in this series and require higher level thinking to take place. Also, the given assessments contain a variety of methods to assess student learning. Some of these methods include: multiple choice, evidence-based short answer, interpreting information from a chart, and hands-on performance-based assessments. There are numerous examples of activities involving cross curricular writing, speaking and listening skills that address/reinforce the 4th grade English Language Arts standards. ELA is integrated through "Literacy Connections" in each topic focusing on such skills as recognizing test features, identifying cause and effect relationships, sequencing information and finding main ideas and details. Math is also integrated into the curriculum by having students measure, compute, read and interpret tables and/or graphs.

Topics are grade-level appropriate and involve high interest topics such as toys, sports, designing a crash test, and creating an exercise bike that powers a house. Students are given multiple opportunities to stop and think by making predictions and reflecting on their understanding. Varied tasks use the engineering design practices along with the scientific procedures of asking questions, forming a hypothesis, testing the question, controlling variables, collecting data, and drawing conclusion and improving the test/design. In the investigation labs, after students design their model, they are asked to show their teacher for approval before beginning. This may be difficult to manage in larger classroom. However, it can be adapted for larger class sizes by having the teacher roam the room.

SECTION 2 Publisher's Criteria

Reviewer # and Section 2 Total: #4 TOTAL 89% #5 TOTAL 89%   #6 TOTAL 96%
   Average Score: 91%

Review Team Assessment of material's compliance with Section 2:
This curriculum is coherent in that the Learning Progressions build through Quests. All the steps build upon each other and conclude with the students building on what they have learned to design something to solve a problem. The content was very substantial and was grade level appropriate with engaging photographs of the natural world.

There is good representation of ethnicities and gender, but very limited diversity of culture, language and disability. Materials needed for investigations are clearly listed and most are readably available.
The curriculum provides differentiation for students who may be struggling with the content, students who are ready to advance, and EL students. Errors Analysis of student assessments includes examples of depth of knowledge required for correct answers and offers suggestions for ways to correct student inaccuracies and misconceptions. Technology integration provides various ways to engage students including online research, videos and science/art based projects.

Reviewer Comments
Reviewer #: <u>4</u>   Reviewer Background: 17 years of experience, in 2nd-5th grade

Reviewer Comments

Reviewer #: <u>4</u>   Reviewer Background: 17 years of experience, in 2nd-5th grade

Comments: There are 8 units called "Topics." Each topic begins with a "Show What You Know" activity which allows for multiple entry points for students. Every topic has an engaging Quest addressing a real-life problem that students work on throughout the unit. Each unit also has several science readings, investigation labs and engineering labs. A typical 4th grade teacher will have difficulty completing the entire curriculum in a school year. There is no guidance on adapting pacing to accommodate limited time.

Reviewer #: <u>5</u>   Reviewer Background: 25 years of experience, in 1st-5th grade

Comments: Good variety of hands-on design and development opportunities to support concepts.

Reviewer #: <u>6</u>   Reviewer Background: 7 years of experience, in 4th grade

Comments: Students are given numerous opportunities to display their level of understanding and encouraged to reach higher level thinking through Bloom's Taxonomy. Students are synthesizing skills and learned concepts while also providing evidence for their reasoning. In the Student Edition, students are given both vocabulary words and academic vocabulary words for the concept.

Review Team Appraisal of Title – K-12 Science Education

This information is provided for local school boards and governing authorities of charter schools to consider in their selection process to meet the needs of their student population.

Text Title:	Elevate Science Grade 5	Publisher:	Pearson Education
Course:	Science	Grade Level:	5
SE ISBN:	9780328989348	TE ISBN:	9780328949212
SW ISBN:			

SECTION 1 – NM Content Standards, Benchmarks and Performance Standards
Reviewer # and Section 1 Total: #4 TOTAL 96.4%   #5 TOTAL 97%   #6 TOTAL 95%   Average Score: 96.1%   Review Team Assessment of material's compliance with Section 1:   This curriculum successfully builds on the content addressed in the previous grades in the curriculum. There are a multiple number of engaging labs for hands-on exploration of scientific principles that encourage students to use higher level critical thinking skills, including establishing criteria and constraints for the models as well as constricting arguments to support their findings. Examples include, students developing modeling dough and examining the use of the energy of water. The students are asked to design their own experiments, think of a procedure to test their predictions, graph their results, analyze and interpret data and support their findings using evidence.   Students are also asked to frequently evaluate their results to criteria and constraints, then compare their work with others through various methods. There was a variety of data recording methods, such as, table and graphs in order to be able to review, interpret and analyze patterns within data. Math skills are seamlessly integrated as appropriate. For example, students are asked to find area, volume, multiple, divide, make graphs and answer word problems. In some assessments, students are asked to use specific vocabulary words such as "rotate" and "revolution" to support their answer. Also, in assessments, students are asked to use evidence, defend claims, compare and contrast, evaluate results and to draw conclusions.

SECTION 2 Publisher's Criteria

Reviewer # and Section 2 Total: #4 TOTAL 92.6%   #5 TOTAL 88.9%   #6 TOTAL 96.3%
     Average Score: 92.6%
 	
 Review Team Assessment of material's compliance with Section 2:
  In this curriculum, the content is viable and grade level appropriate. Also, students have various opportunities through Learning Progressions to revisit previously taught ideas and apply them to new situations and tasks. For example, within a Quest, students are asked to find out ways for a robot chef to identify one substance than another, through the use of three activities, building on their knowledge of matter through each activity, until they synthesize information to solve the problem for the robot chef. There were no activities connected to New Mexico standard 5-SS-1 NM, which focuses on the contribution of New Mexico scientists and engineers. The pacing guide suggests that over half the year (98 days) is dedicated to Earth and Space Science. Technology is embedded throughout the curriculum and gave students opportunities to research online and additional media, develop multimedia presentations, and view supporting videos.

Reviewer Comments
Reviewer #: 4   Reviewer Background: 17 years of experience, in 2nd-5th grade   Comments: This curriculum was designed to meet the NGSS, not revised to fit in NGSS. There is too many active ties for most teachers to complete in one school year. There is not a pacing adaptation guideline to assist teachers in deciding the most important components to teach to fit the schedule.

Reviewer #: <u>5</u>   Reviewer Background: 25 years of experience, in 1st-5th grade
Comments: This is an engaging curriculum that encourages students to use critical thinking through the scientific procedure.

Reviewer #: <u>6</u>   Reviewer Background: 7 years of experience, in 4th grade
Comments: Multiple opportunities for students to synthesize their thinking and make improvements for models they have created.