Washoe County School District K-5 Science
2020 Instructional Materials Evaluation Rubric
(Certified Teaching Professional Form)

Category 1: Designed for Three-Dimensional Learning

Criterion 1A: Phenomena and Problems

Instructional materials focus on students making sense of phenomena or designing solutions to problems which drives student learning.

- Students are engaged with phenomena or problems that can be explained or solved through the application of the three-dimensions.
- A good phenomenon builds on everyday student experiences and targets grade appropriate learning goals.
- Anchoring, investigative and everyday phenomena may be present.
- Engineering lessons require students to use elements of the science core ideas together with elements of core ideas from engineering design to solve problems.

Less of this:	**More** of this:
Phenomena are just for the initial hook.	Phenomena drives the learning.
Phenomena are fun or flashy to engage students.	Phenomena that builds on everyday experiences supports engagement.
Phenomena are brought in after students develop the science ideas so they can apply what they learned.	The development of science ideas is anchored in investigations of phenomena.
Engineering problems are unrelated to the science learning.	Engineering involves designing solutions to problems that arise from phenomena.

Examples of Evidence:

- ◊ Photographs of trash washed up on a beach that leads into a unit on waves in 4th grade physical science unit. (A first-hand experience, video, photograph or data set to start a learning sequence that becomes the "why" for further study grounded in everyday student experiences.)
- ◊ A time lapse video of a badger decomposing is shown to start a life science unit on matter and energy in ecosystems. Students return to the video throughout to explain what is happening.
- ◊ Garbage from the lunchroom is examined to start a unit on matter and how it changes in the 5th grade physical science unit.
- ◊ 3rd grade students explore balloons, aluminum cans, styrofoam beads, and transparent tape to make observations and generate questions about static electricity in the physical science unit, lesson 3.
- ◊ Students address the problem of communicating at a distance without sound following a study of light in the 1st grade physical science unit.

Specific Evidence from Materials
Needs of Plants and Animals Unit- examines the problem of the declining monarch population on a smaller scale and students must explain why there are no more caterpillars in a community garden and what can be done to attract the monarchs (anchor phenomenon) (unit overview). Chapter one anchor phenomenon: on there are no more monarch caterpillars in the Mariposa Grove community garden. Chapter two anchor phenomenon: on milkweed seeds grow

different amounts. Chapter three anchor phenomenon: on even when milkweed seeds get water they can still grow differently. Chapter four design problem: on we want monarch caterpillars to be able to live in Mariposa Grove community garden.
Pushes and Pulls unit- students create a pinball machine that lets them control the way a pinball moves (unit design problem) (unit overview). Chapter one anchor phenomenon: a pinball starts to move. Chapter two anchor phenomenon: pinballs move different distances. Chapter three anchor phenomenon: pinballs move different directions and to different places. Chapter four anchor phenomenon: pinballs change directions. Chapter five anchor phenomenon: creating a pinball machine that lets us control the way a pinball moves. Chapter six anchor phenomenon: objects in Pushville and in our school start moving, change direction, or stop moving.
Sunlight and Weather unit-examines the problem of why students at one fictional school are too cold during morning recess and why students at another fictional school are too hot during afternoon recess (anchor phenomenon) (unit overview). Chapter one anchor phenomenon: different playgrounds have different weather on different days. Chapter two anchor phenomenon: sometimes playgrounds are warmer than others. Chapter three anchor phenomenon: playgrounds are usually warmer in the afternoon. Chapter four anchor phenomenon: one fictional schools playground being warmer in the afternoon than the other. Chapter five anchor phenomenon: both fictional schools experiencing sever rain, but only one school's playground flooded.

To what extent do the materials support Criterion 1A? Include your reasoning.
The materials support Criterion 1A because phenomena drives the learning for each unit (Needs of Plants and Animals, Pushes and Pulls, and Sunlight and Weather). In each unit, phenomena builds on everyday experiences and supports engagement in each lesson. In addition, the development of science ideas is anchored in investigations of phenomena.

Criterion 1B: Integrating the Three-Dimensions

Instructional materials integrate elements of the Science and Engineering Practices, Crosscutting Concepts and Disciplinary Core Ideas.

- Students develop and use multiple grade-appropriate elements of each dimension.
- The dimensions are integrated to work together and are not taught in isolation.
- Learning experiences integrate multiple different pairings of the dimensions to build understanding of the targeted performance expectations.
- Engineering is integrated with at least once per domain of science.

Less of this:	**More** of this:
Students only engage in a single practice element in a lesson.	The lesson helps students use and develop multiple practice elements.
Lessons teach the dimensions separately or only address them at the general level.	Lessons integrate grade-appropriate elements for each dimension.
Engineering lessons focus on trial and error activities that don't require science or engineering knowledge.	Grade-appropriate elements of engineering design and science core ideas are integrated with the other dimensions.
Engineering consists of challenges or step-by-step directions to build something.	Engineering is integrated into the grade-appropriate science core ideas and use explanations of phenomena to design solutions.

Examples of Evidence:

- ◊ 4th grade students conduct an investigation using fair tests in which variables are controlled and the number of trials considered, including collecting measurements and representing data in tables, with balls and ramps to determine cause and effect relationships of speed and energy in unit 2 lesson 4.
- ◊ Students ask questions about waves moving objects and collaboratively investigate how to make different looking waves in water and analyze how these waves affect a floating object in the physical science unit.
- ◊ 3rd grade students generate, test and refine solutions to keep two moving objects from touching each other by applying ideas learned about magnets in lesson 9.
- ◊ With teacher guidance, kindergarten students conduct an investigation with peers to compare the effects of different directions of pushes and pulls on playground balls, student chairs and erasers on different surfaces in the physical science unit, lesson 3.

Specific Evidence from Materials
Needs of Plants and Animals Unit: this unit incorporates an explicit focus on the crosscutting concept of Systems and System Models, with opportunities to address the crosscutting concept of Patterns; Scale, Proportion, and Quantity; and Structure and Function. The unit includes 4 focal performance expectations, 2 connections to other performance expectations, 8 science and engineering practices, 4 disciplinary core ideas, 2 connections to other disciplinary core ideas, and 5 crosscutting concepts. Pushes and Pulls unit: this unit incorporates an explicit focus on the crosscutting concept of Cause and Effect, with opportunities to address the crosscutting concepts of Structure and Function and Scale, Proportion and Quantity. The unit includes 5 performance expectations, 7 science and engineering practices, 6 disciplinary core ideas, and 5 crosscutting concepts.

Sunlight and Weather unit: this unit incorporates an explicit focus on the crosscutting concept of Cause and Effect, with opportunities to address the crosscutting concepts of Energy and Matter; Patterns; and Scale, Proportion, and Quantity. The unit includes 4 performance expectations, 2 connections to other performance expectations, 8 science and engineering practices, 3 disciplinary core ideas, 2 connections to other disciplinary core ideas, and 5 crosscutting concepts.

To what extent do the materials support Criterion 1B? Include your reasoning.
The materials support Criterion 1B because the lessons help students use and develop multiple practice elements. The lessons also incorporate grade-appropriate elements for each dimension. Each unit has grade-appropriate elements of engineering design and science core ideas that are integrated with the other dimensions.

Criterion 1C: Coherence

Instructional materials help students develop increasingly sophisticated understandings within and across grade-levels.

- Lessons fit together to target a set of performance expectations with multiple opportunities for students to revise understandings over time.
- Instructional materials make connections between lessons, units and grade levels.
- Lessons build on students' prior learning in all three dimensions.
- Students engage in learning experiences with explicit connections to other science disciplines and other subjects with intention.

Less of this:	**More** of this:
Lessons are unrelated.	Lessons are presented in a logical sequence to develop understandings.
Lessons build on prior learning but only for the DCIs.	Lessons work together with students' foundational knowledge and practice from prior lessons and grade levels.
Science domains are taught in isolation.	When appropriate, science domains are integrated to show connections.
Other subjects, when included, are not intentionally chosen to support grade-level standards.	Grade-level appropriate standards from ELA, math or other subject areas are integrated with science learning.

Examples of Evidence:

- ◊ In the first unit, students address the physical science standards around the phenomena of garbage and partially address a life science standard related to decomposers. In the second unit on ecosystems, students extend and apply their understanding of decomposers which leads to an engineering problem about materials such as plastics that do not decompose.
- ◊ 5th grade students are investigating water sources around the Earth and make connections to properties of matter in both the physical science and earth science units and prior learning about weather and climate from 3rd grade.
- ◊ 2nd grade students plan and conduct an investigation with water and earth materials as a whole class in one lesson and then in the next lesson students work with a small group to plan and conduct another investigation with wind and earth materials to further learning of core ideas and practices.
- ◊ Students apply ELA learning to write a set of directions for conducting an investigation in the earth science unit, lesson 6.
- ◊ Students use line plots to analyze climate data in grade 3, unit 4.

Specific Evidence from Materials
In the Needs of Plants and Animals unit, Kindergarten students develop an understanding that animals and plants have needs that they must meet in the place they live. They learn that even without directly contacting plants and animals, humans can impact a place in ways that make it easier or more difficult for living things to meeting their needs. This is built upon in the second grade unit Plant and Animal Relationships and the fifth grade unit Ecosystem Restoration. In the Pushes and Pulls unit, Kindergarten students develop an understanding of contact forces and the idea that when an object starts to move or changes

direction, that is evidence that there was a force on that object. This is built upon in the third grade unit Balancing Forces.
In the Sunlight and Weather unit, Kindergarten students begin to encounter the idea of energy which is built upon in the first grade unit Light and Sound and the fourth grade unit Energy Conversions.

To what extent do the materials support Criterion 1C? Include your reasoning.
The materials support Criterion 1C because the lessons are presented in a logical sequence to develop understandings. The lessons also work together with students' foundational knowledge and practice from prior lessons and grade levels.

Category 2: Instructional Supports

Criterion 2A: Assessing the Three-Dimensions

Instructional materials support monitoring student progress in all three dimensions.

- Multiple and varied assessments allow students to demonstrate learning in all three dimensions including application of knowledge in performance tasks.
- Formative assessments, including teacher, self and peer assessments, are embedded throughout to inform instruction.
- Assessments are unbiased and elicit direct, observable evidence from all students.
- A phenomena or problem drives tasks, and information from the task is required to complete it.
- Rubrics and scoring guidelines are provided for interpreting student performance including sample student responses

Less of this:	**More** of this:
Checks for understanding elicit only a few student responses or rely primarily on group projects.	Individual student artifacts are used to measure student understanding of each dimension.
Only summative assessments that measure the end point of understanding are provided.	Formative assessments provide feedback to adjust instruction and inform students of their progress.
Assessments are primarily rote memorization of facts and terminology.	Assessments reflect application of all three dimensions including tasks that are driven by phenomena or problems.
Only multiple-choice tests are given.	Multiple measures and types of assessment are used throughout.

Examples of Evidence:

- ◊ As students are engaged in a performance task in unit 3, lesson 2, there are indicators for teachers to look for and information about possible responses. This information is embedded in the lesson.
- ◊ In unit 1, there are two performance assessments, peer feedback throughout, exits slips, a summative assessment, and a prewrite.
- ◊ Individual student learning is assessed using written work that answers the driving question of the unit. (Earth Science, p. 76)

Specific Evidence from Materials
Needs of Plants and Animals Unit: at the end of the unit, students engage in a design problem as they recommend a plan to redesign the garden in Mariposa Grove in such a way that it accommodates the needs of both humans and monarchs (unit overview). Assessments are grounded in the unit's Progress Build. There are formal and informal opportunities for students to demonstrate understanding. Assessment System Components: assessment guides/rubrics, clipboard assessment tool, possible student responses, look for/now what? notes, assess understanding/tairlor instruction notes, pre-unit assessment, end-of-unit assessment, critical junctures, on-the-fly assessments, student self-assessments.

Chapter 1, lesson 1.1 has a pre-unit assessment conversation to understand the students' ideas of the unit's core content as well as the crosscutting concept of systems and system models.
Each assessment has a sample answer key.
Needs of Plants and Animals unit, chapter 1, lesson 1.1 has a pre-unit assessment: students' initial explanations. Chapter 4, lesson 4.4 has an end-of-unit assessment: students' explanations.
Sunlight and Weather unit, chapter 1, lesson 1.3 has a pre-unit assessment: students' initial explanations. Chapter 5, lesson 5.6 has an end-of-unit assessment: students' explanations.
Pushes and Pulls unit, chapter 1, lesson 1.1 has a pre-unit assessment: students' initial explanations. Chapter 6, lesson 6.3 has an end-of-unit assessment: students' culminating explanations.

To what extent do the materials support Criterion 2A? Include your reasoning.
The materials support Criterion 2A because the formative assessments provide feedback to adjust instruction and inform students of their progress. The assessments reflect application of all three dimensions including tasks that are driven by phenomena or problems.

Criterion 2B: Instructional Experiences

Instructional materials support equitable access to science knowledge and practice for all students.

- Students engage with direct (preferably first-hand), shared experiences that are relevant and authentic, serve as the basis for learning and meet the developmental needs of elementary students.
- Students' questions, prior experiences and diverse backgrounds related to the phenomenon or problem drive learning.
- Materials provide an opportunity to learn by allowing for the development of scientific understandings over time using multiple modalities.
- Materials provide opportunities for students to make connections to and explore the natural world outside the classroom.

Less of this:	**More** of this:
The lesson focuses on a topic that some students have experienced.	Direct experiences in the classroom provide access and equity for all students.
Student questions and prior experiences are not connected to the learning.	Materials provide supports for connecting students' own questions to the targeted learning.
Students read about what others have done.	Students learn through concrete experiences.
Only one or two modalities are used.	Multiple modalities are used throughout each instructional segment.

Examples of Evidence:

- ◊ Students develop physical models of a landfill as open and closed systems to observe during the 5th grade garbage unit.
- ◊ Students identify components of garbage disposal in their homes and communities which connects the phenomena that started the unit.
- ◊ Students conduct a first-hand investigation of erosion and deposition using a stream table, observe time-lapse videos of landslides, engage in a virtual investigation, read accounts of earth changes by wind and record changes to the playground after a snow event in the 4th grade earth science unit.
- ◊ Students raise trout from eggs in the classroom and make observations over time as part of their study of traits in the life science unit.

Specific Evidence from Materials
Each lesson includes a differentiation section that includes multimodal instruction. For example, lesson 1.5 of the Needs of Plants and Animals unit, it includes use of the reference book, observations of visual images, and structured language frames for a class discussion. In lesson 2.3 of the Needs of Plants and Animals unit, students engage in a shared listening routine about what plants need to grow, which prepares them to investigate the impact of water on plant growth. Then, students observe and discuss changes to garlic cloves with water and no water as an initial investigation which is geared towards the investigation question. Next, students record their second observation of the garlic cloves with water and no water and then compare their two recordings to draw conclusions about water and growth. At the end of the lesson, students move onto the next phase of the Do All Plants Need Water

investigation by watering one radish seed cup. This prepares students to record observations of growth in a subsequent lesson.
In lesson 1.2 of the Pushes and Pulls unit, students begin constructing an understanding of pushes and pulls by describing the movement of a ball and their bodies. Then, they look at images of movement and discuss what they visualize with a partner. Next, students practice speaking and writing about the relationship between force and motion using a because Explanation Language Frame. Finally, students listen to a read-aloud that introduces them to scientific language regarding the movements they have been exploring.
In lesson 4.4 of the Sunlight and Weather unit, students observe potential modifications to the fictional playgrounds to consider how the changes might impact the temperature on the playground. Partners will use the Shared Listening routine to discuss which changes would help solve the problem of students being uncomfortable at each playground. Then, students participate in shared writing to suggest changes that the principals of the fictional schools can implement so that students there will feel more comfortable on their playgrounds during recess. Next, students use a mini-book as a resource to consolidate their understanding of the relative temperatures of different surfaces when exposed to or blocked from sunlight. Finally, partners read a book to practice communicating what they have learned about the relative temperatures of different surfaces when exposed to or blocked from sunlight.

To what extent do the materials support Criterion 2B? Include your reasoning.
The materials support Criterion 2B because they allow for direct experiences in the classroom that provide access and equity for all students. The materials provide supports for connecting students' own questions to the targeted learning. The students also participate in concrete experiences throughout the units. In addition, multiple modalities are used throughout each instructional segment.

Criterion 2C: Student Sense-making

Instructional materials support equitable access to science knowledge and practice for all students.

- Materials support student sense-making at both an individual and group level.
- Classroom discourse focuses on expressing and clarifying student reasoning with opportunities for students to share ideas and feedback with each other that supports the iterative and collaborative co-construction of explanations.
- Materials include supports for oral and written language processing to involve students in scientific discourse for sense-making including a language-in-use approach.

Less of this:	**More** of this:
The teacher tells students what they need to know.	Students figure out explanations through classroom discourse with each other.
The teacher calls on a few students to share reasoning.	All students have the opportunity to share their thinking orally or in writing.
The focus is only on getting the "right" answer.	Sense-making begins with initial student ideas that progress in sophistication.
Vocabulary is front-loaded. All students are provided with sentence frames.	Specialized vocabulary is embedded in the instructional sequence with multiple opportunities to use and development over time. Writing supports are differentiated.

Examples of Evidence:

- ◊ 5th grade students develop models of how scents travel that are refined over the course of a three weeks using a combination of visual and written language providing multiple opportunities to develop precise vocabulary in the physical science unit.
- ◊ 3rd grade students answer questions in their notebook individually using pictures and words to explain their initial ideas about how static electricity works and have the opportunity to revise this after discussing with a peer and the whole class in the physical science unit.
- ◊ The teacher facilitates a class discussion using a word wall where kindergarten students share observations with a shoulder partner and the whole group about the kinds of things in their homes to figure out that the things we need come from nature.
- ◊ Suggested sentence frames are included to support oral and written responses when needed with the goal of independence.

Specific Evidence from Materials
Needs of Plants and Animals Unit: students engage in firsthand observations, readings, class discussions and recordings of explanations to explain why there are no monarch caterpillars in Mariposa Grove (unit overview, chapter 1). Students investigate, read, observe, record, and explain orally and through writing why plants can only live and grow in places that provide them water (unit overview, chapter 2). Students gather evidence, form their own investigation, observe, record and read to identify how plants grow differently due to the amount of light they received (unit overview, chapter 3). Pushes and Pulls unit: Students view a video, design a class pinball machine, investigate, explore, read, and draw diagrams to gain experience with the design

cycle and with forces (unit overview, chapter 1). Students engage in firsthand and secondhand investigations to figure out the relationship between the strength of a force exerted and the distance an object moves (unit overview, chapter 2). Students work together, observe through hands-on exploration, draw diagrams of their work, discuss and share their learning through a shared writing activity (unit overview, chapter 3). Students gather evidence, observe, visualize, and explain in writing about how forces cause a moving object to change directions (unit overview, chapter 4). Students read, engage in the iterative design process to redesign models, and explain how to use forces to play pinball in the box model (unit overview, chapter 5). Students gather evidence through reading and touring through the school looking for forces to apply their understanding that forces are all around them (unit overview, chapter 6).
Sunlight and Weather unit: students work together to figure out the answer to the question, what is the weather like on the playgrounds? They learn that weather includes both type and temperature by observing and recording their local weather and learn how to use a thermometer (unit overview, chapter 1). Students expand their investigation by developing a deeper understanding of temperature as they learn about sunlight's warming effect on Earth's surface. They do this by using models to understand phenomena that may not be directly observable (unit overview, chapter 2). Students investigate and deepen their understanding of how various factors impact the effect of sunlight on Earth's surface (unit overview, chapter 3). Students investigate, compare, and connect the temperature of pale and dark surfaces from models to a variety of surfaces they encounter in the real-world (unit overview, chapter 4). Students read, discuss, use physical models, reflect, and share their ideas about how people can stay safe in severe weather (unit overview, chapter 5).

To what extent do the materials support Criterion 2C? Include your reasoning.
The materials support Criterion 2C because students figure out explanations through classroom discourse with each other, students have the opportunity to share their thinking orally or in writing, and sense-making begins with initial student ideas that progress in sophistication.

Criterion 2D: Teacher Supports

Instructional materials support teacher planning and instruction.

- Materials include background knowledge in both science content and pedagogy and student preconceptions.
- Materials have clear and concise instructional directions and connections to the standards.
- Materials provide guidance to support differentiated instruction, extra support and extensions at the appropriate level for a broad range of learners.
- Materials include professional learning and additional instructional planning resources.
- Materials have supports for families to extend learning and offers suggestions for how to help their student(s) at home.

Examples of Evidence:

- ◊ Information prior to lessons gives teachers things to except that students may already know in unit 1 p.12 in addition to how their understandings will build.
- ◊ 1st grade students have a choice to investigate different variables related to shadows, and suggestions are included as well as extensions to do at home. (Light unit, p. 40)
- ◊ The assessments include recommendations for additional supports when students don't meet expectations. "Students may struggle to articulate that scientists look back at the data they collect to look for patterns and to draw conclusions about phenomena. One way to support them in this thinking might be to share an anecdote such as, "When I was growing up, my mom used to measure my height by marking it on the wall in the pantry. When I look back at those marks, I notice patterns, like that I grew faster between the ages of 5 and 8 than I did when I was older."" (p.14)
- ◊ Students make observations of the sky with their families, looking for patterns over time. Families are provided with background information on how to record observations and what patterns to expect.

Specific Evidence from Materials
Each lesson includes a progress build which describes the way in which students' explanations of the central phenomenon should develop and deepen over the course of a unit. It begins with prior knowledge (preconceptions), foundational knowledge, progress build level 1, progress build level 2, progress build level 3, and progress build level 4. Each unit includes a unit map with the chapter question, what students figure out, and how they figure it out. Each unit includes a section called "Getting Ready to Teach", a Science Background is included with pedagogical considerations, "Standards at a Glance", and NGSS information for parents and guardians explaining what the NGSS are and three-dimensional learning (English and Spanish). Each lesson includes digital resources such as assessment guides, investigation notebooks, and PowerPoint presentations. For each lesson, there is a section for differentiation with embedded supports such as visual representations, read-alouds, modeling how to make observations, academic language support, vocabulary support, promoting inclusion in discussions, how to support students with disabilities, building prior knowledge, and generating questions.

For each unit, picture cards, vocabulary cards, and unit/chapter essential question cards. In the Needs of Plants and Animals unit and Sunlight and Weather unit, some of the cards are in color.

To what extent do the materials support Criterion 2D? Include your reasoning.
The materials support Criterion 2D because they include background knowledge in both science content and pedagogy and student preconceptions. The materials have clear and concise instructional directions and connections to the standards. The materials also provide guidance to support differentiated instruction, extra support and extensions at the appropriate level for a broad range of learners.

Category 3: Student Materials

Criterion 3A: Program Design

Instructional materials represent a comprehensive K-5 core program.

- Materials provide instruction that correlates to our recommended instructional minutes for science.
- Materials are available in both English and Spanish.
- Graphic organizers and templates for science notebooks are included.
- Teacher and student materials have resources both in print and online.
- Multimedia supports are included such as videos, tutorials and simulations and when appropriate reflect the diversity of our students and society in a culturally responsive manner including different genders and sexual orientations, from many cultures and nations, both contemporary and historical.
- Technology options are appropriate for both classroom and home use possibly including translation capabilities.

Examples of Evidence:

◊ There are four units, each representing nine weeks of instruction at 180 minutes a week. This is short of our recommended minutes of 240 minutes a week for 5th grade.

◊ There are 132 60-min lessons for the whole year. This correlates to our recommended instructional minutes of 220 minutes per week for grades K-2. (3-4 60-min lessons per week)

Specific Evidence from Materials
Each unit contains 20 lessons and two full-session assessments (a Pre-Unit Assessment and End-of-Unit Assessment). The lessons are written for 45-minute sessions. Needs of Plants and Animals Unit: includes multi-language glossary, but I did not see a Spanish version. There are classroom slides for PowerPoint and Google Slides for each lesson that help guide instruction. There are projections for all lessons. Each unit has an investigation notebook. The notebooks are only in black and white and can be printed.

To what extent do the materials support Criterion 3A? Include your reasoning.
The materials support Criterion 3A because they provide instruction that correlates to our recommended instructional minutes for science (180 minutes a week), graphic organizers and templates for science notebooks are included, and teacher and student materials have resources both in print and online. Multimedia supports are also included that reflect the diversity of our students and society in a culturally responsive manner.

Criterion 3B: Science Equipment

Instructional materials include hands-on materials and equipment that support three-dimensional learning.

- Enough materials are included to allow students to do the investigations themselves.
- Materials are of a quality that will last through many uses.
- Materials include the tools necessary to make observations and measurements and conduct investigations.

Examples of Evidence:

◊ There are enough thermometers, graduated cylinders, balances, magnifying glasses and measuring tapes for a whole class to use in small groups.

◊ Everything is included to engage in the lessons except for things that would already be found in the classroom like tape and colored pencils.

Specific Evidence from Materials
Each unit has a list of materials and preparation. The list includes the quantity needed, the manipulatives/print materials/student books, and to be used in what lesson. The list also includes items that should be provided by the teacher as well as a preparation time frame. Includes investigation notebooks (printable) with a table of contents, safety guidelines, pages for recording, and a glossary. There are more than enough materials for the class to use. Many of the materials are high quality and will last multiple uses/years. All of the materials are provided, however, some need to be printed. All of the materials seem like good quality. Materials that would normally be found in the classroom like coloring utensils and such are not included.

To what extent do the materials support Criterion 3B? Include your reasoning.
The materials support Criterion 3B because there are enough materials to allow students to do the investigations themselves, the materials are of a quality that will last through many uses, and the materials include the tools necessary to make observations and measurements and conduct investigations.

Criterion 3C: Reading Materials

Instructional materials include grade-appropriate texts that support three-dimensional learning.

- A range of text types and genres, both print and online, are embedded in learning experiences.
- Texts support context-specific academic vocabulary.
- Materials reflect the diversity of our students and society in a culturally responsive manner including different genders and sexual orientations, from many cultures and nations, both contemporary and historical.
- Materials include supports for reading comprehension for a variety of student needs including high-quality questions.

Examples of Evidence:

- ◊ Texts include an interview of Sylvia Earle and profiles of Chien Shiung Wu and Benjamin Banneker. These highlight the connections to the science students are learning. Pictures of scientists working in the field represent the diversity of our students.
- ◊ Cultural myths about the sun and stars are included in the earth/space science unit.
- ◊ Vocabulary is highlighted in the reading that follows a concrete experience where the vocabulary is first introduced.

Specific Evidence from Materials
Needs of Plants and Animals unit has 5 big books and 18 copies of the books for students. The books have people with diversity. Pushes and Pulls unit has 5 big books and 18 copies of the books for students. The books have people with diversity. Sunlight and Weather unit has 5 big books and 18 copies of the books for students. The books have people with diversity.

To what extent do the materials support Criterion 1A? Include your reasoning.
The materials support Criterion 3C because there is a range of text types and genres, both print and online, and are embedded in learning experiences. The materials reflect the diversity of our students and society in a culturally responsive manner.

Referenced, adapted and formatted from the following documents:

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