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
• Each lesson introduces a lesson phenomenon to build understanding of the Performance Expectation, support understanding of the Anchoring Phenomenon, and drive 3D learning throughout the lesson.

- Unit 1 lesson 1 students go on a virtual trip to a zoo where they make observations from media on many different animals and act out these animals to answer the **Lesson Phenomena:** The yellow fish look similar to one another, but different from the black fish.
- Students use the phenomenon that even though flowers may look different, they are all flowers by comparing the structure and function of plants. Students will use what they have learned about plant parts to design a standing tower and provide a solution to a specific problem.
- Students observe some animals do not have legs as they conclude that all organisms have external parts. Students show what they know by labeling the parts of an animal.Students then will apply some knowledge about animal parts to design a device that solves a specific problem in the form of a glove that will keep their hands warm by mimicking animal traits.
- Finding out how thorns stop an insect from eating a plant, students summarize how plants have different parts that help them survive and animals use their body parts in different ways to protect themselves. Then, students construct explanations to explain how engineers can mimic plant and animal parts to design products that keep people safe.
- Unit 2 lesson 1 Students plan and carry out investigations to illustrate how light travels by placing different materials in the path of a beam of light.
- Students note how shadows can change positions during the day and discover that some materials block all the light and create a dark shadow on any surface beyond them. Working with shadows, students perform a puppet show.
- Unit 2 lesson 4 As students discover that you can hear whale calls underwater, they examine wave properties and understand that sound can travel through different materials, such as air, wood, metal, water, and glass.Then they plan and carry out their own investigation to test a science question about whether other sounds can travel through yarn. Students show what they know by thinking of a science question about sound and planning an investigation.

To what extent do the materials support Criterion 1A? Include your reasoning.

- The materials support Criterion 1A because the phenomenon hooks the student and drives the learning throughout the lesson. The lesson begins with the lesson phenomena and then follows with an investigation the students conduct to understand the phenomenon.
- Everyday students build on to their understanding of the phenomenon with activities and readings in their science journals.
- Also they build solutions to problems or engineer ideas of how the phenomenon can help design products for everyday life.

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
• Students will plant a plant and observe what happens. Students will observe and record their findings. The last step, students will construct a standing tower and provide a solution to a problem in unit 1 Animals and Plants. • In Unit 2, students explore light and sound by discovering how light helps us see, how light travels, how sound is made, and how sound travels. Students then combine both light and sound to find out about the ways people use light and sound to send messages. • Unit 2 Light and Sound lesson 1 Students assess the cause-and- effect relationship between light and seeing. Students write a story about visiting a dark place. • Using simple tests to gather evidence, students show what light will do when it hits different objects as they examine what happens when light shines on a mirror. • Students make sounds with different instruments and demonstrating cause and effect, show how sounds make other objects vibrate.

- Students use tools and materials provided to design a secret code that uses light or sound to send a message across a room. Students use the code to play a game like Simon Says. Unit 2 lesson 5.
- Unit 3 Sky Patterns there are five lessons in this unit that build on one another. Students will act as detectives to solve the mystery of the day time moon.

To what extent do the materials support Criterion 1B? Include your reasoning.
Bring Science Alive supports Criterion 1B because the lessons help students use and develop multiple practices by assessing cause and effect relationships, gathering evidence and conducting simple tests, using tools to design a product. Each lesson integrates grade appropriate elements for each dimension for example, they watch a video, then they read about it, next students would do an activity or investigation learning about the phenomenon. Each lesson students gain knowledge of the elements being used and they build upon each other. Students are reading a variety of stories and investigating activities that build on from one another. Also, students are using their engineering skills and science to design solutions to everyday problems. They are using what they learned to engineer a product.

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
• Students are introduced to the unit's anchoring phenomenon of animals taking care of their young. In this unit, students examine and compare the similarities and differences between animals and plants. Students discover different animal families on a fictional safari. Students investigate how plants and animals are like others of the same kind, how plants and animals sense things, and how plants and animals meet their needs. Then students explain how offspring are like, but not exactly like, their parents on a performance assessment. Students will also understand how plants and animals stay safe and read about how parents take care of their offspring. Then students lead a safari in their own neighborhood. Using what they know, how can students design a device to carry and protect their items while on a safari? This is for unit 1 Plants and Animal parts

- Students will participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
- Students draw or write questions about it in their journals to explain why you look similar to your parents or how do you look different. Unit 1 lesson 2.
- Students *describe* the characteristics of their plant or animal to find a match. Unit 1 lesson 2
- In Unit 2 Light and Sound students write a story about being in a dark place and using a light- flashlight, lantern, a candle. What do they see?
- In Unit 3 Sky Patterns, students make a graph. They will use the graph to help compare the number of hours of daylight at different times of the year.
- Students learn the causes and effects of light beams traveling to different kinds of materials. They find out that some materials change the dirctions of a beam of light by reflecting it. In fourth grade, students develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

To what extent do the materials support Criterion 1C? Include your reasoning.
The materials support crieterion 1C because the lessons are presented in a logical sequence to develop understanding. The lessons work together with students' foundational knowledge and practice from prior lessons. For example, Plants and Animal Parts, begin with the understanding that plants and animals if the same kind are recognizable as similar but can also vary.Then students learn that offspring of plants and animals are may look but not exactly like their parents as you can see the sequence if gradual and logical for 1st graders to understand. The lessons do intergrate science domains to show connections. For instance, unit 1 Plants and Animal parts lesson 6 explains how animals and plants need light to survive. In unit 2 students learn about light and sound, and in unit 3 lesson 1 explains why there is light during the day and dark during the night. In the Master Lesson Guide it provides a learning progression that explains what the student learns in the lesson and what they will be learning in the future grade. For example, students learn the causes and effects of light beams traveling to different kinds of materials and in fourth grade, students develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen. In every lesson students are writing and reading to get more information about the phenomenon, so that students make sense of what they are learning. Unit 3 Sky Patterns math is integrated by having students predict the pattern of the moon and figure out the shape. Students would use a graph to record their finidings from an investigation. Overall, students will think it is engaging and it is grade level appropriate that progresses each year for learning in future grades.

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
• Each unit wraps up with a Performance Assessment. The activities and written oral assignments allow teachers to assess student understanding.The information is embedded in the lesson. • Rubrics are provided to grade the performance assessment. • At the end of each lesson, they have checkpoints for students to show what they know. This will help teachers to adjust their instruction if needed. For example unit 1 lesson 1 students use what they've learned, to explain the unit's Anchoring Phenomenon: *These animals take care of their young.* • *At the end of each lesson, they have a wrap up session for students to rate what they know by using: don't know, still learning, understand, or Expert.*

To what extent do the materials support Criterion 2A? Include your reasoning.
Bring Science Alive uses a variety of assessments that teachers can use to see if students understand what they are learning. Students are tested on the 3 dimensions: science and engineering practices, crosscutting concepts, and disciplinary core ideas. Assessments are embedded through out the unit either through activities or a checkpoint. At the end of each lesson the students have a checkpoint to see if they understand the phenomenon. The performance assessment are used at the end of the unit this is where they have to write their answers, draw, or use multiple choice. Some of the assessments they work with another student or a group. Rubrics are provided to help grade the assessment and answer keysare provided online on the sidebar of each question asked in the slides.

Evaluator: 51 Grade Level: 1st grade Program: Bring Science Alive!

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
• At the beginning of each lesson, the teacher poses a question to discuss for example p. 107 in student science journals " Have you ever tried to hold your breath underwater? How long did you last without taking a breath? • Students grow a plant and observe what happens. Then they use what they know about plant parts to design a paper tower that can stand up. • Students analyze videos on the hermit crab and discuss their findings. • One activity, students design a glove that mimics an animal part that will keep their hand warm in ice water. • How Do People Use Light and Sound to Send Messages? Students do an engineering investigation, students use tools and materials to design a secret code that uses light or sound to send a message across a room. Student then use the code to play a game like Simon Says.

- Students create a flip book to show the moon's path across the sky in one night and a calendar to show the moon's shape at different times of the month.
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To what extent do the materials support Criterion 2B? Include your reasoning.
Bring Science Alive supports Criterion 2b because students are engaged while they learn and make connections in a variety of activities. Every lesson begins with a question for the students to answer and then they must use what they learn from the videos, stories, and photographs to analyze the information. They write what they understand through check for understandings and answering questions. Also, they use what they learn to design or test the phenomena. In each lesson, students gain knowledge that they will connect back to the anchoring phenomenon and to use to explain the phenomenon.

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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
• 1st grade students develop a claim of "What you see at night you can not see during the day?"at the end of each lesson. Students use the evidence they learn from videos, books, vocabulary, and investigations to They write their reasoning. • Students label photographs using a word bank in their journals. • Students sort cards or match word with definition. • Teacher facilitates discussion using the slides. Students share observations with a partner and the whole group about how the plants are the same or different.

- Students answer questions in their Science journals individually using pictures and words to explain how the horses are alike and different and then have opportunity to share it with a partner.
- Students draw pictures of what they know such as pictures of day and night.

To what extent do the materials support Criterion 2C? Include your reasoning.
Throughout the lesson students learn new vocabulary through activities that are embedded in the lesson. Students practice by watching videos, reading stories, and using their journals to review what they have learned. They show what they know by drawing pictures or writing what they know. Students participate in a variety of ways to understand the concept either through whole group discussions, small group activities, or partner jobs. They are figuring out explanations through classroom discourse with each other. All students have the opportunity to share their thinking orally and in writing with partners. The teacher is guiding the discussion.

Evaluator: 51 Grade Level: 1st grade Program: Bring Science Alive!

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
• Unit highlights give teachers information of what to prep in advance for investigations, and performance assessments. What Different Parts Do Plants Have? For the beginning of the investigation, you will need the seeds, paper towels, sandwich bags, water, and spray bottle. After about two weeks, students will move their plants to cupts to fill ed with soil. During Step 3, the engineering phase of the investigation, scissors, tape, and construction materials will be sued. At this step, place the materials on a table for students to access. • Online- there is a place for teachers to find support. It goes over blending classroom, culturally responsive classroom, differenation instruction, and reading support, etc. • sentence starters • Program provides science sentence starters as a handout or on a slide when you want students to hold a discussion. • Lesson guide provides teacher support on page 7 "help students understand the term phenomenon. • Towards the end of the lesson, the guide provides teacher guidance for English Learners: "provide descriptive words during the virtual zoo trip".

- Advance learners is on the same page. The guidance tells teachers to have advance learners to write an animal story using physical features. (Animals and Plants)
- Students with special needs support- build the houses before class to save time. (Sky Patterns)
- Provides Sun Facts for Kids (www.planetsforkids.org/star-sun.html)
- The guide provides Advance prep for each lesson at the beginning of each unit. For example, "Animals and Plants teachers need to order hermit crabs at least 2 weeks prior to this investigation".

To what extent do the materials support Criterion 2D? Include your reasoning.
Bring Science Alive has many supports for the teacher. The materials includes background information in science content. If you want more background knowledge or learning there are websites and additional readings the curriculum provides at the end of each lesson or on their website. There is support to help with all ranges of learners. The materials provided support for differentiated instruction, extra support, and English Learners. The materials are clear and concise and very easy to follow. The standards are easily seen at the beginning of each lesson. However, the materials in the lesson guide are hard to read because the text is small. On-line it is easier to read and find what you need quickly.

Evaluator: 51 Grade Level: 1st grade Program: Bring Science Alive!

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
Fast Track lesson guide is about 45 minutes a lesson sometimes more with the extensions activities. There are 3 units: Plants and Animal Parts, Light and Sound, Sky Patterns. Each unit has 6-8 lessons. Science Journals are in both English and Spanish which are included. Slides and videos are embedded within the lesson. The photographs used are diverse of our students. Technology options are appropriate for both the classroom and home use. They have a speaker tab that reads the question to them but not in Spanish.

To what extent do the materials support Criterion 3A? Include your reasoning.
Bring Science Alive does somewhat support criterion 3A because the materials provide instruction that correlates to our recommended instructional minutes for science. The science journals are both English and Spanish which is included with the curriculum. Multimedia used reflects the diversity of our students of present times. I did not see any historical photos. The lessons on line are easier to read. The technology for use at home does not translate the videos or the questions on the slides it just reads the questions or slides to them in English.

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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
There are enough soil, seeds, cups, sponges, aluminum foil, cotton balls, feathers for the whole class to use in small groups or individually. Most materials can be found in the classroom like crayons, chart paper, or tape. Some materials can be reused- bins, tuning fork, plastic tubes. Some of the materials will have to be reordered: cotton balls, feathers, seeds, soil. Hermit crab aquarium is provided with the habitat.

To what extent do the materials support Criterion 3B? Include your reasoning.
The materials support Criterion 3B because most of the materials are included for each investigations. There is enough of small groups and individual students to use. Everything is included to engage in the lessons except what would be in a classroom like pencils, crayons, tape, chart paper.

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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
Text is embedded in the student science journals. Vocabulary is highlighted in the reading and then students follow a concrete experience by sorting words in a chart on how are these horses the same and different. The genres are mostly informational. Photos show a variety of diverse students and genders. Students will read an article about dark and light. Then they answer questions in their science journal to describe which objects can you see? Why?(Light an Sound)

To what extent do the materials support Criterion 1A? Include your reasoning.
The materials support Criterion 3C because articles is embedded throughout the lesson. Students read their science journal to further their understanding of the phenomenon. There is usually an activity to do after the reading in the science journal to reinforce what they have read.

Evaluator: 51 Grade Level: 1st grade Program: Bring Science Alive!

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