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
• The anchor phenomena for Air and Weather are air that surrounds us and the natural objects that we see in the sky. The question for the module is what is all around us nd what do we observe in the sky above us? • Students work in collabortiave groups using firsthand experiences with the phenomena such as creating a parachute that will land safely carrying cargo and communicating their findings with science notebooks.

- Students construct and observe parachutes dropping through air. They think about how air slows the descent of the parachute. They design and test a parachute to land a cargo container gently without spilling the contents.
- Students investigate what air can do by using materials such as a balloons, straws, and air pump to move items like paper, cotton ball, or feathers.
- Teacher poses questions Where is air and what can it do? Students then investigate about air.

To what extent do the materials support Criterion 1A? Include your reasoning.
Foss materials support Criterion 1A. the materials focus on making sense of the phenomena or desgining solutions to problems where the students drive their learning. They investigate the phenomena firsthand by activities and experiences that students collect data and apply knowledge by solving problems. The students are desgining solutions that arise from the phenomena throughout lessons and modules. It is more engaging when they get to learn and see it in their environment so that they can make the connections.

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 are always conducting active investigations: Balloon rockets (Air and Weather), plant miniature lawns with ryegrass and alfalfa (Plants and Animals),or use cups with rubber bands and flat sticks to produce sound (Sound and Light). • Module: Air and Weather teach students Earth Science and engineering. • Students construct an explanation of the phenomenon in their science notebooks. Module Air and Weather- investigation 1.3 Students use syringes to investigate air. They discover that air can be compressed and that air under pressure can push objects around. • Module: Plants and Animals- investigation 2.1 Students observe and describe the phenomenon of making new plants from stems (pieces of potatoes). They record their findings in their science notebooks.

- Module: Sound and Light- investigation 1.3 Students go outside and sit quietly to listen for sounds in the environment. Students determine the sound source for each sound identified.
- Teacher poses questions for students to answer after they test the phenomenon. Students write their foundings to support what they have learned from the investigation in their science notebooks.
- Students analyze how we can redirect a light beam? They investigate by using a flashlight and mirror to redirect light to the ceiling without pointing the flashlight to the ceiling. (Module Sound and Light)

To what extent do the materials support Criterion 1B? Include your reasoning.
Foss materials support Criterion 1B because students are actively investigating the phenomenon. Students answer questions by conducting investigations. The engineering is integrated into the science core ideas and use explanations of the phenomena to design solutions. The three dimensions are integrated to work together. Students are using multiple elements of each dimensions, which helps students build their understanding of the phenomenon.

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 first grade, students learn to observe the moon over time to determine predictable patterns, then investigates how daylight changes using math to anlyze the date. That learning progresses for students in 5th grade to trace shadows in the morning and afternoon to identify change in shape and position to understand the interactions of Earth, Sun, and Moon. Then on to middle school for Planetary science. • Module: Air and Weather- Students explore the phenomenon that objects in the sky change position in predictable ways, They explore the natural workld by using simple instruments and calendars to observe and monitor change. They use new tools like the weather vain and

methods to build their understanding of the weather and to find out about properties of air by exploring how objects interact with air. Students observe daily changes in air temperature and connect them to the daily movement of the Sun in the sky. They monitor changes in hours of daylight over the seasons and connect them to changing weather conditions. And they find the Moon in the day and night skies and monitor its movement over the month.

To what extent do the materials support Criterion 1C? Include your reasoning.
Foss materials support Criterion 1C because Foss builds on providing experiences that allow students to continually build on ideas of the phenomenon. They develop more complex science and engineering throughout a module and at multiple grade levels. The learning keeps going and the students are engaged throughout making meaning on what they are learning. The lessons work together with students' prior knowledge and practice from prior lessons or grade levels. Also the lessons are presented in a logical sequence to develop understanding. The standards from ELA and math are integrated with science learning.

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
• Investigation I- checks- students answer questions on paper. A student has a container of air. She takes the lid off and sets the container on the dock. Mark Xs on the picture to show where the air will be 10 minutes after she opens the jar. • Embedded Assessment Notes-Teacher takes notes while students perform the task or understand the phenomenon that is going on. • Performance Assessment Checklist-Teacher observes to see if students are understanding standards by using science notebooks or discussions: ETS1.A: Defining and delimiting engineering problems, ETS1.B: Developing possible solutions, ETS1.C: Optimizing the design solutions

To what extent do the materials support Criterion 2A? Include your reasoning.
Foss materials support Criterion 2A. The materials provide a variety of assessments that teachers observe students while they are performing an engineering task, or investigation of the phenomenon. Also the assessments are unbiased and are relied on observable evidence from students. The phenomena or problem drives the tasks because students are actively investigating and answering the focused question. Multiple measures are used sometimes it is by performance from investigations, written findings in the science notebook, multiple choice questions, or fill in the blanks. All the assessments reflect the application of all three dimensions. The assessments are embedded throughout the module.

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
• Students investigate by creating a parachute that lands gently with cargo. The students learn that air slows a descent of a parachute(Module: Air and Weather) • Students watch a video, Friction and Air Resistance to understand that air pushes objects and that air is all around. (Module: Air and Weather) • Students investigate the wind movement by creating bubbles outdoors.(Module: Air and Weather) • Powerpoint is used for teacher to teach. The vocabulary is introduced and very simple sentences for 1st graders to read. "Air can move things from place to place." • Students glue the focus question and investigation into their science notebooks.

- Pair up with partners to describe observations about air, “What caused the feather to move? Why did the balloon get bigger?”
- Students read What is All around Us?, to learn that air is all around us.
- Teachers are provided with safety posters and on powerpoint to go over the rules such as outdoor safety slide 14 Air and Weather.
- In the same powerpoint slide 8, it explains the engineering process: The process of engineering: define the problem, plan for a solution,build the solution, test the solution to see if it works.

To what extent do the materials support Criterion 2B? Include your reasoning.
Foss materials supports Criterion 2B because the program uses direct experiences in the classroom and outdoors for investigations. Students work in pairs with investigations to discuss what they are learning and to have concrete experiences of their own. All students have access and equity to the materials. The materials are in English and Spanish. The powerpoint is presented to everyone. Also, the powerpoint shows lots of pictures that are labeled so students know what materials to get for the investigations, what page to go to, and when to discuss with a partner because the slide represents a group or pair. The powerpoint has videos, safety posters, vocabulary, and science book pages, so that you can read with the class and that an individual students can follow along even if they have trouble reading. * Multiple modalities are used thoughout each instructional segment. Students will learn.

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
During investigations, students write in their science notebook of their observations and findings. "Draw your design in your notebook. In our design, the _____ does ____.The job of the _____ is to _____." (Module: Air and Weather) Students read articles from science resource books. "Water in the Air". (Module: Air and Weather) Students are paired up with a partner to share answers to the focus question, then they share their drawings of their plant that grew over time. (Module: Plants and Animals)

Students listen to the sound each object in the bag makes. The challenge is that student 1 drops and object into the drop chamber and student 2 listens to the sound of the object. Student 2 finds it in their set and drops it into the chamber. Both students compare the sounds and lift the chamber to check if they are the same retrieve the objects. (Module: Sound and Light)

To what extent do the materials support Criterion 2C? Include your reasoning.
Foss materials support Criterion 2C because students figure out explanations through classroom discourse with each other by working in pairs, or discussing their findings from their science notebooks. Students use science resource books that help students make connections to the science concepts that are being introduced or explored during an investigations. The powerpoint introduces vocabulary which is embedded throughout the powerpoint but in the science articles the students read from their science resource book. Students are always writing what they are learing in their science notebook and discussing with other students and to the class. Most of the sense making is happening with the student's ideas and then progresses with complex science the more they learn from the lesson. The program provides multiple means of representation and give students a various ways to the information. They demonstrate knowledge in many ways to communicate with whole group, small group, and partner work.

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
• Teachers have to prepare their kits. Foss provides directions on pages 60-64. (Module: Air and Weather) • EL notes are on each investigation page. "Using a picture or drawing of the Sun, model the sun moving east to west." • Differenation for Access and Equity- Foss has a whole section at the beginning of the teacher guide. Pp. F1- F40 (Module: Sound and Light) • Science background is given on pp. 138- 145 in Module: Air and Weather. • Teaching Notes are embedded in the lessons in blue boxes on the sidebars for each Module. • There are videos that provide teachers how to set up for investigations and the general overview of instructional practices. • Foss provides teacher support through its network of consultants through chats online and contacts page 28. • Home/ School connections give parents ideas of activities to use at home in science and math to get parents involved either by print or online. • In the teacher guide- p. 1 in Module: Air and Weather, the introduction gives teachers an overview of what the module is about and the phenomena. • Ongoing professional learning opportunities on www.Fossweb.com

- Icons on the sidebars of Guiding the Investigation remind the teacher when a particular pedagogical method is suggested and concise information.
- P.26 gives ideas of how to schedule the module into your school day.
- U.S. Navy Observatory Websites Alternatives so teachers and students can obtain the amount of daylight for each day for a given year.

To what extent do the materials support Criterion 2D? Include your reasoning.
Foss materials support Criterion 2D because Foss supports the teacher with so many resources. The online supports and the teacher guide gives information of how to set up the classroom and how to help all students. The program embeds the support throughout the teacher guide, so if a teacher needs help with an EL student is it all right there in the lesson on sidebars. The program thought of everything to help a teacher if they run into challenges. The program is set up for students to retain the information because of the various means if representation of the lesson and various ways for students to demonstrate learning. That all students will learn. They provided ways for teachers to communicate and get parents involved with science at home with letters about the lesson and activities they can extend at home.

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
• 28 weeks- 3 modules, 4 investigations in each module. • The student book is available as an audio book on FOSSweb, accessible at school or at home. In addition, as premium content, FOSS Science Resources is available as an eBook on computer or tablet, either as a read-only PDF or in an interactive format that allows text to be read and provides points of interactivity. Investigation 2, Part 3: Watching Clouds • "Cloud Catcher" Students can test their ability to identify different kinds of clouds as they are seen moving across the sky." (Module: Air and Weather) • list of regional resources for virtual and actual field trips for students to use in gathering information for projects, and a database of science and engineering careers. • Teachers with a FOSSweb account can easily set up class pages with notes and assignments for each class. • Powerpoint slides include videos and simulations that are unbiased. • Science notebook masters are online and in teacher edition for teacher to create. Students create their science notebooks within the lesson. • Materials are both in print and online. • Interactive files with or without an interactive whiteboard to facilitate each part of each investigation. • Class pages. Teachers with a FOSSweb account can easily set up class pages with notes and assignments for each class. Students and families

can then access this class information online, using the teacher-assigned class login.

- Spanish and English are available in materials.

To what extent do the materials support Criterion 3A? Include your reasoning.
Foss materials support Criterion 3A because they have thought of everything a student would need to be successful. They provided resources that are online and print so it is easy to access at home. Students are able to go online to get further help in understanding the lesson through turtorials. Also students that speak only Spanish can follow along because the materials are in Spanish too. The materials correlates with our recommended instructional minutes for science.

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
• A PDF of the Materials chapter in Investigations Guide is available to help you prepare for teaching. A list, organized by drawer, shows the materials included in the FOSS kit for a given module. You can print and use this list for inventory and to monitor equipment condition. P. 56 (Module: Air and Weather) • Each materials are in a drawer broken by investigation. • Some of the materials are consumable such as: balloons, index cards, straws, cotton balls, etc. • Plenty of supplies for each students to be able investigate on their own: wood base, anemometer sets, vials, syringes) • Some materials are supplied by the teacher that would be found in a classroom: chart paper, crayons, clipboards, chairs)

To what extent do the materials support Criterion 3B? Include your reasoning.
Foss materials support 3B . The materials include hands- on materials and equipment that supports three dimensional learning. Students are able to work alone, with a partner, or a small group when conducting investigations. The materials are of high quality that will last through many uses. However, there are some tools that are consumables and teachers will have to order supplies again to replenish the supplies that were used. All the tools that come with the program are needed to have students experience science and not just from reading about it.

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
• Science books: What do Plants Need? Vocabulary is highlighted in the reading that follows a concrete experience where the vocabulary was first introduced. During lessons, the science resource books are embedded in the lesson for students to read with a partner or on their own to get more information on the topic. • Powerpoint slides very simple for 1st graders to read. Vocabulary is introduced. "Lawns. How would you describe lawn? What kind of plants are in lawns? How do you care a lawn? • On the powerpoint, Investigations show pictures that go with step by step directions so students can read them independently. • The articles in the science resource book are able to be read to students online. There is also an audio book that goes with the program. • Reading comprehension is supported by having students write what they learned in their science notebooks. • Photos from the science resource books reflect diversity showing different genders, and cultures. • Genres is informational.

To what extent do the materials support Criterion 1A? Include your reasoning.
Foss materials support Criterion 3C because students see reading throughout the lessons and module. The materials provided multiple means of representations through the powerpoint, reading the science resource book, observing, discussing, and writing for students to learn the information. The materials are based on informational text which is embedded in the learning. The photographs in the books reflect diversity. Overall, the pictures show backgrounds of scenery such

as the sky, animals, or plants. Some of the photos show scientists working in their field using different genders. Also the videos show the same. The materials are based on the students learning the information and vocabulary that goes with the lesson.

Referenced, adapted and formatted from the following documents:

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