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
In the unit, Materials and Motion, investigations 1-3 use the phenomena of examining sources, structure, and property of materials, specifically wood, paper, and fabric. Students use then use their understandings to design and build a structure to keep a cup of water cool outside on a sunny day. In investigation 4,

students are lead through the phenomena of finding the cause-and-effect relationships with pushes and pulls. Students will use their understandings to explain how balls roll in different directions on different surfaces on the playground. p.ii-iii
The Materials and Motion Investigation Guide notes that students experience multiple ways of interacting with and figuring out phenomena and provides examples of the idea of the phenomena is woven throughout the unit pinpoininting specific instances where science is anchored in the investigations. p. iv-v
The Materials and Motion Investigation Guide, notes that each investigation has guiding and focusing questions for phenomena. p. 2-3
The engineering compont of the Motion and Materials unit, Investigation 3: Getting to Know Fabric, Part 6: Building Structures is a design challenge that arises from science phenonmena specially after observing materials understanding which one would be best suited to make a structure to keep water cool in sunshine. p. 253 of the Investigations Guide
The phenomena that drives Motion and Materials, that objects are made of materials and how their properties determine their use, builds of their everyday experiences as these materials comprise their classroom, school, home, neighborhood, and community. Students come into contact with these materials daily.

To what extent do the materials support Criterion 1A? Include your reasoning.
The materials fully support Criterion 1A: Phenomena and Problems. The students are engaged with phenomena or problems that can be explained or solved through the application of the three-dimensions. The curriculum uses good phenomenon that builds on everyday experiences and targets grade appropriate learning goals. There is an anchoring, investigative, and everyday phenomenon present. The engineering lesson require students to use elements of the science core ideas together with elements of core ideas from engineering design to solve problems.

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
The Investigations Guide of the Motion and Materials Unit contains a Module Matrix which pinpoints the content related to Disciplinary Core Ideas for each investigation. In investigation 3: Getting to Know Fabric, students will learn from the module that fabric can absorb, transmit, or repel water, can be made of woven threads, etc. p. 2-3 P. 18 of the Investigations Manual of the Materials and Motion unit states, in the Overview, the three-dimsensions of Science and Engineering Practices which is constructing explanations and designing solutions, Discipilinary Core Ideas which is Developling Possible Solutions and Crosscutting Concepts which is cause and effect. On p. 28 of the Investigations Guide for Materials and Motions, in the section titled, "Framework and NGSS" the author give specific details and a lengthy

explanation of the DCIs addressed under Physical Science and Earth and Space Science. P. 32 details the Science and Engineering Practices addressed in the unit and learning progressions for practices recommended from perforamcne expectations as bullets under each practice. Similarly, p. 33 notes the Crosscutting Concepts addressed with performance expecatations as bullet underneath each heading. P. 46-49 provides another explanation of the curriculum's integration of the the three-dimensions.
P. 73 of the Investigtions Guide of the Materials and Motion unit, in Investigation 1: Getting to Know Wood, again displays the lesson's reference to how it includes the three-dimensions.

To what extent do the materials support Criterion 1B? Include your reasoning.
The materials fully support Criterion 1B: Integrating the Three-Dimensions. Students develop and use multiple grade-appropriate elements of each dimension. The dimension are integrated to work together and are not taught in isolation. The learning experiences integrate multiple different pairings of the dimensions to build understanding of the targeted performance expectations. Engineering is integrated with each domain of science.

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 first three investigations of the Materials and Motion unit, students observe and then test natural, manufactured, and designed materials to design and build a structure from investigated materials to keep water cool in sunshine. The Investigations Guide of the Materials and Motion unit, under the Framework and NGSS heading, also notes the investigation's connections to the Common Core ELA standards. For example, in Investigtion 1: Getting to Know Wood, students will learn RI1, how to ask and answer questions about key details, RI3, describe the connection between two ideas, W5 strenthen writing, SL1 participate in collaborative conversations, etc.

P. 101 of the Investigtions Guide for Materials and Motion, Investigation 1: Getting to Know Wood, Part 1: Observing Wood, the text, “The Story of the Chair” asks students to discuss key points, review the photos, and make predictions.
P. ix of the Investigations Guide for Materials and Motion, of the FOSS Phenomenona Storylines discusses the units coherence and attends to the logical sequence of K-8 Topic Arrangement Learning Progression and highlights future knowledge in coming grades through middle school.

To what extent do the materials support Criterion 1C? Include your reasoning.
The materials fully support Criterion 1C: Coherance. The lessons fit together to target a set of performance expectations with multiple opportunities for students to revise understandings over time. The instructional materials makes connections between lessons, units and grade levels. Lessons build on students’ prior learning in all three dimensions. Students engage in learing experiences with explicit connections to other science disciplines and other subjects with intention.

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 FOSS unit has a Teacher Resource Assessment Guide that details the different assessment systems for Kindergarten. Each guide begins with an overview of the three types of assessment in the FOSS program; embedded, benchmark, or interim. Embedded assessments occur daily with observations in class or a review of the student's notebooks. Benchmarch assessments are summative in nature and are given at the end of the of each investigation through an I-Checks which is a hybrid tool to provide summative information about student achieve or used diagnostically to help students clarify their thinking. Last, interim assessments focus on specific performance expectations from the NGSS similar to district and state science tests. P. 1 of the Teacher Resources Assessment Chapter.

In the Materils and Motion unit, Investigation 1: Getting to Know Wood, Part 1: Observing Wood, p. 92, number 16 of getting ready for the investigation explains the embedded assessment opportunities in the module. Examples given are teacher observations, performance observations of students with materials, teacher-student, or student-student verbal interactions. There are four assessment checklist masters provided on Teacher Resources for noting the disciplinary core ideas, science and engineering practices, and cross-cutting concepts. Last, there is a narrative report which can be filled out with the data taken from the assessment checklists to be give to parents or sent on to the student's first grade teacher.
p. 8 of the assessment portion of teacher resources provides an overview of how the assessments work across all three modules.
It is noted that in Kindergarten assessment is exclusively embedded, formative assessment.
In the module matrix, p. 3, of the overview for the Materials and Motion unit, there is also an assessment column which provides a snapshot of each embedded assessment and performance expecatations.

To what extent do the materials support Criterion 2A? Include your reasoning.
The materials fully support Criterion 2A: Assessing the Three-Dimensions. The use of multiple and varied assessments allow students to demonstrate learning 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. The curriculum uses phenomenoa or problem to drive tasks, and information from the task is required to complete it. Rubrics and scoring guidelines are provided for interpreting student performance including sample students responses.

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
In Materials and Motion unit, students use various concrete experiences as they go through Investigtion 1: Getting to Know Wood. In Part 1: Observing Wood, students become familiar with different kinds of wood at home and school, explore 5 different samples, find and label wood in the classroom, and find wood outside. P. 94-103 In part 2: Wood and Water, students observe how wood and water interact with drops and submerging in basins. P. 104-111 In part 3: Testing a Raft, students experiment and record their observations with a bar as they try to sink wood samples by attaching weight. P 112-121 In Part 4: Sanding Wood students use sandpaper on two different wood samples to understand the properties of wood and how they change. P. 122-127 In Part 5: Sawdust and Shavings, students explore sawdust and shavings by mixing them with water and observing them over a few days as they dry out. P. 128-134

In Part 6: Making Particle Board student simulate making particle board and compare it with actual samples. P. 135-141
In Part 7: Making Plywood students make plywood and compare it to a real life sample. P. 142-152
P. 10 of the Overiew of Materials and Matter notes that Active Investigation, comprised of context (sharing prior knowledge, questions, and planning) p. 89 focus question, activity (doing and observing) p. 94 experiement p.108-109, data management (recoding, organizing, and processing) bar graph p. 119, and analysis (discussing and writing explanations) extending reading in notebook p. 102, to keep investigations rigorous and productive.
The Module Matrix contains a column titled Reading/Technology which describes videos, books, and online activities that attend to various styles of learners.

To what extent do the materials support Criterion 2B? Include your reasoning.
The materials fully support Criterion 2B: Instructional Experiences. Students engage with direct, shared experiences that are relevant and authentic, and serve as the basis for learning and meet the developmental needs of elementary students. Students' questions, prior experiences and diverse backgrounds relate to the phenomenon or problem drive learning. The 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.

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
(Materials and Motion), Investigation 1: Getting to Know Wood, teacher asks students "Where do you think the materials comes from?" and students talk with partner before sharing whole group. P. 96 (Materials and Motion), Investigation 1: Getting to Know Wood, sense making progresses from basic knowledge and definition of wood, to exploring a variety of samples to understand that some samples are natural and others are human-made. P. 94-97 Teacher uses a cloze review of vocabulary by saying a sentence, leaving the last word off, and having students answer chorally. P. 99 Example, "When you look at something closely, you _____. Students say observe.

Students use strip with focus question to paste in their science notebooks and record their answers with illustrations and simple sentences. The teacher provides modeling and sentence frames. P. 100
Teacher writes down topic of discussion and records ideas from students on how the author supports this idea (claim). To extend the readin, the teacher uses a focus chart with sentence stem and again models how to do this in their science notebooks. P. 102
During the wrap up of the lesson, the students are paired with a partner to share their answers to the questions and explain their drawings. P. 103 The use of focus charts, recording with drawings and writing in science notebooks, and modeling of sentence stems occurs other parts of the investigations. P. 111 (part 2).

To what extent do the materials support Criterion 2C? Include your reasoning.
The materials fully support Criterion 2C: Student Sense-making. 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 eachother that supporst 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.

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
The Teacher Resource Manual contains a section on "Science Vocabulary Development" p. 25-30. It provides numerous strategies for the teacher to validate students's conversational language and develop their science vocabulary; word bubbles, word sorts, semantic webs, concept maps, coginitive content dictionaries, and word associations. P. 26-27. It also guides the teacher in how to aide students in using science vocabulary in context; word wall/word cards, drawings and diagrams, close activities, word wizard, and work analysis/word parts, reading, and games. P28-30 p. 91, number 12, describes how teachers can use teacher master 1, "Letter to Family" to explain what students will be doing with materials such as wood, paper, and fabric, and how parents can extend the experiences at home. There is an entire section to each part of the investigation titled, "Getting Ready. P.89-93 that guides teachers through the supports needed to carry out the investigation. It details how to schedule an investigation, which parts are necessary for review, how to become familiar with samples, planning for material distribution, checking outdoor sights, word wall, science notebooks, prints of photocopies for masters, letters home, safety aspects, ideas of working with ELLs, and assessment.

One of the three parts of the FOSS Teacher Toolkit is the “Teacher Resources” manual. This covers, in depth the FOSS program goals p. 1-8, science notebooks in grades K-2 p. 1-28, science-centered language development in grades K-2 p.1-48, FOSS and common core ELA p. 1-20, FOSS and common core math p. 1-10, taking FOSS outdoors p. 1-20, teacher masters p. no 1-35, and assessment masters no 1-8.

To what extent do the materials support Criterion 2D? Include your reasoning.
The materials fully support Criterion 2D: Teacher Supports. The materials include background knowledge in both science and pedagogy and student preconceptions. The materials have a 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 many supports for families to extend learning and offeres suggestions for how to help their student(s) 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
Most of the part of the Investigation 1: Getting to Know Wood, meet the districts recommended minutes of 220 minutes per week for K-2. P. 74-76 PDF Investigation Guide. There are 4 modules in the program which cover 8-9 weeks of instruction each, coincides with the quartly calendar of WCSD. P. 25 Material and Motion Overview There are 22 days built into all of the investigations of the Materials and Motion module and can be covered in the 44 days of the first quarter of instruction. However, the district allots 3-4 60 minute lessons per week and this would require 4-5 lessons be taught per week. The materials are available in both English and Spanish for many components of the Materials and Motion module. In the Teaching the Moduel section, the following online materials can be found in Spanish: Letters to Families, Letters to Parents About the Moduels, Home/School Connections and Other At-Home Activities for each investigation. Under Materials and Kit Information, there are Spanish versions of the Equipment Photo Cards, Word Wall Cards, and Poster and Card Sets. In Teach Resources, there is a link to the Spanish version of the Teacher Masters. Last, under the Digital Resources, there are Spanish Student eBooks, Streaming Videos, Teaching Slides, Focus Questions, Vocabulary, and Vocabulary Defintions. From Materials and Motion Resources by Type. Scaffolds for Science Notebooks include sentence starters or drawing starters, frames, and notebook sheets. P. G12 of Science Notebooks in Grades K-2 PDF

There are printable focus question labels for science notebooks. Cannot locate graphic organizers or templates for Kindergarten Science Notebooks. There is a document titled, "Science Notebooks for Grades K-2" that has suggestions for implementation such as Getting Started with format, organization (page numbering, date, title, and other conditions, table of contents, index) entries, and how to support students with a class notebook, scaffolds (sentence starters or drawing starters, frames, and notebook sheest), think aloud, providing time to record, and dictation.
In the Digital-Only Resources there is a Science and Engineering Careers Database, which links to the profiles of Scientists and Engineers of many men and women who have careers in specific fields of Science and Engineering. You are refine your search by category (Physical Science, Earth Science, Life Science, Health Science, Environmental Science, Engineering, or Technology), gender (male or female), or time period (modern – after 1940, or historical – before 1940).
There is an interactive eBook App of the FOSS Science Resources book on iOS and Android devices.
In Digital-Only Resources, there are steaming videos that support the investigation in both English and Spanish.

To what extent do the materials support Criterion 3A? Include your reasoning.
The materials fully support Criterion 3A: Program Design. The materials provide instruction that correlates to our recommended instructional minutes for science. The materials are available in both English and Spanish. Graphic organizer 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 appriopraite reflect the diversity of our students and society in a culturally responsive manner including different genders, from many cultures and nations, both contemporary and historically. Technology options are appropriate for both classroom and home use with translation options.

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 FOSS drawer contains hands-on materials to allow student to conduct various investigations. Drawer one and two contains printed material and equipment shared across modules, each module has equipment unique to that module, and drawer 5 houses consumables shared across modules. Materials include the tools need to carry out the investigations plus some items that would already be found in a typical classroom such as sticky notes, string, paper, etc. FOSS does note, on the Kit Inventory List, of the Materials and Motion module some items that might occasionally need replacement such as tape, string, paper plates, etc. P. 1-2 In the materials section of the Materials and Motion module it is specified that new kits contain enough consumables for a class of 32 students to engage in three classroom uses before restocking is required. It also contains permanent equipment for a class of 32 students. P. 51 P 54-55 outlines the materials that need to be supplied by the teacher such as gluesticks, newspaper, scissors, etc. Some of these materials could already be found in a typical Kindergarten classroom while others would need to be purchased for the investigation.

To what extent do the materials support Criterion 3B? Include your reasoning.
The materials fully support Criteriona 3B: Science Equipment. There are enough materials to allow students to do the investigations themselves. The materials are of a quality and will last through many uses. 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
The eBook, for the Materials and Motion module contains images of humans that vary in age, ethnicity, and divserve cultures. P.1-68 Each eBook contains a glossary for context-specific academic vocabulary, which is in bold text in the book. Texts are also available as audio books which are read aloud but without accompanying pictures. The Delta Science Reader, “How Do We Learn?” also uses photographs to depict humans of varying ethnicities, age, and gender which reflectes the diversity of the students in our classrooms in WCSD. Pg 19 also includes suggested graphic orgaanizers to support compare/contrast, cause and effect, main idea and details, and sequencing. This is not followed up with suggested high-quality questions. However, the investigation itself, p. 101-102 guides the teacher to review concepts of print, have students think-pair-share to predict what the article is about prior to reading the story. Next, during the readin the teacher is asked to discuss the article’s topic and supporting details during and after reading the story aloud. Finally, the teacher is guided to extend the reading after the lesson through the use of the science notebook. There is a section under Teacher Resources, titled, “Science Centered Language Development in Grades K-2, which helps the teacher focus on helping student learn to read informational texts by building on background knowledge, model close reading, examine craft and structure, and build comprehension skills. P. H22-H24

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

The materials fully support Criterion 3C: Reading Materials. Texts, which come in both print and online, vary in type and genre and are embedded naturally in the learning experienes of the students. The text support context-specific academic vocabulary. The materials portray the diversity of our students and society in a culturally-responsive manner. The materials portray different genders, from many cultures and nations. The texts are contemporary. The materials have supports for comprehension for differing student needs and use high-quality questions.

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