

NEVADA STATE BOARD OF EDUCATION

Agenda Request Form

All items to be considered for the State Board of Education agenda *must* first be approved with the legal language edited by your Department Director. They need to then be forwarded to your Deputy Superintendent for final approval.

Step 1: Consult with your Deputy or Director to establish the need for the item to be brought before the State Board of Education.

Step 2: Once established, complete this form. If you are new to developing State Board agenda items, please review past agendas. It is important to begin with clear and concise language.

Step 3: Obtain approvals from your Director.

Step 4: Submit to your Deputy Superintendent. Please be sure that you send the Deputy a complete packet of information (support material) or a clear plan to have the complete packet (support material) to your Deputy at least 2 weeks prior to the meeting. All support material must be ADA compliant before submitting to your Deputy.

Date of Meeting: 1/28/21

Name and Title of Presenter(s):

André DeLeón

Education Programs Professional -- K-12 Science and Instructional Materials

Possible Approval of Instructional Materials

Item is on the Agenda for:

Consent Agenda Item

Information and Discussion

Information, Discussion, and Possible Action

Is there a statutory requirement associated with this agenda item? If so, describe: N/A

Please provide the Item language to be included on the agenda. If the item requires Action, include a description of the requested Action. All items begin with the following language:

Information, Discussion (and Possible Action) ...see below.

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Agenda Request Form

CONTENT AREA	TITLE	PUBLISHER	GRADE LEVEL	DISTRICT(S)
Science	FOSS Next Generation	School Specialty	Grades 6-8	All

INSTRUCTIONAL MATERIALS FOR STATE BOARD OF EDUCATION ADOPTION CONSIDERATION

At which location do you wish to present? Carson City _____ Las Vegas

Will you have a PowerPoint presentation? _____ YES NO

The information submitted is to support our recommendation to the State Board of Education to adopt the instructional materials submitted by the Nevada Instructional Materials Steering Committee (NIMSC) in compliance with the following:

NAC 389.856 Committee evaluation of textbooks. A committee established pursuant to NAC 389.854 shall review textbooks and submit to the Department of Education in the form prescribed by the Department an evaluation of any textbooks being recommended for adoption. The evaluation must include:

1. A comparison of the textbook with the courses of study offered in this State and the goals and objectives of the school district that the committee is representing.
2. A summary of the organization and presentation of material in the textbook.
3. A statement of the quality of production of the textbook, including the cover, binding and print.
4. An analysis of the accuracy of the information contained in the textbook.
5. A statement of the appropriateness of any materials of support or references provided with the textbook.
6. An analysis of the ability of the textbook to stimulate interest in pupils.
7. A reasonable assurance that the textbook complies with the requirements of subsection 2 of NRS 389.850.
8. A list of the times and locations that parents of pupils enrolled in the district and other members of the community were afforded an opportunity to review the textbook and to submit written comments to the committee before the final recommendations were made.

(Added to NAC by Bd. of Education, eff. 4-1-92) — (Substituted in revision for NAC 390.020)

This request is in compliance of NDE's State Improvement Plan (STIP):

- Please indicate the STIP Goal(s) with which this item aligns:

Goal 1: All children, birth through third grade, have access to quality early care and education.

Goal 2: All students have access to effective educators.

Goal 3: All students experience continued academic growth.

Goal 4: All students graduate future-ready and globally prepared for postsecondary success and civic life.

Goal 5: All students have access to new and continued educational opportunities supported by funding that is administered transparently, consistently, and in accordance with legislative or grant guidelines.

Goal 6: All students and adults learn and work together in safe environments where identities and relationships are valued and celebrated.

- Which NDE value(s) does your item represent?

Equity

Access to Quality

Success

Inclusivity

Community

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Transparency

- Use this space to provide any additional context on the connection of this item to the STIP, especially alignment with specific strategies or IOOs.

This item will help in the process where all Nevada students and teachers have access to high-quality, Nevada Academic Content Standard-aligned instructional materials for science.

Instructional Material Reviewers: Please note: In compliance with the NAC, reviewers scored these instructional materials for categories one and two on the rubric.

Kristoffer Carroll, Southern Nevada Regional Professional Development Program, Curriculum and Instruction, 6-12 Science

André DeLeón, Nevada Department of Education, Education Programs Professional – K-12 Science and Instructional Materials

Deborah Fullow, Nye County School District, Science Instructor

Lori Hendrickson, Clark County School District, Curriculum and Instruction, K-12 Science

Traci Loftin, Washoe County School District, Curriculum and Instruction, K-12 Science

Shanlee Meyers, Elko County School District, Science Instructor

Sylvia Scroggins, Washoe County School District, Curriculum and Instruction, K-12 Science

Layla Ward, Nye County School District, Science Instructor

Return this form by email to Jonathan Moore jpmoore@doe.nv.gov,

Category 1	Criteria 1	Criteria 2	Criteria 3	Total
	School Specialty FOSS Next Generation Grades 6-8			
Carson				0
Clark	0	1	0	1
Douglas				0
Elko				0
Lyon				0
Nye	3	3	3	9
Washoe	4	4	4	12
NDE	3	4	4	11
	COMPOSITE SCORE			4.13

Category 2	Criteria 1	Criteria 2	Criteria 3	Total
	School Specialty FOSS Next Generation Grades 6-8			
Carson				0
Clark	2	1	0	3
Douglas				0
Elko				0
Lyon				0
Nye	4	4	3	11
Washoe	4	4	4	12
NDE	4	4	3	11
	COMPOSITE SCORE			4.63

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Nevada Instructional Materials are reviewed and approved by the Nevada State Board of Education. These instructional materials do not constitute a comprehensive curriculum. Rather, they stand as starting place for collaborative content teams to develop lessons, units of instruction, aligned assignments, and common assessments that will prepare every Nevada student to be college, career, civic, and community ready.

Our Vision

All students and teachers in Nevada will have access to the highest-quality instructional materials that will help improve student-learning outcomes in all content areas.

The purpose of instructional materials is to be the tools that provide students with positive learning experiences enhanced over time and to facilitate a deeper understanding of the educational content. In response, Nevada educators collaborated in order to create an instructional materials adoption process that will provide all of our students the instruments to access, examine, and provide analysis to any area of content without limitations predetermined by race, gender, ethnicity, language, exceptionality, sexual determination, or family background/ income.

Adoption Process

For all content areas, the adoption process starts with vendors submitting materials for review as put forth by a Request for Information (RFI) issued by the Nevada Department of Education (NDE). The instructional materials submitted will first have an internal review conducted by NDE staff as per the RFI.

All submitted materials will be reviewed by the Nevada Instructional Materials Steering Committee (NIMSC). The NIMSC is made up of instructional materials leads from Nevada's school districts and have the charge of receiving, reviewing and making recommendations regarding the adoption of all instructional materials that drive instruction in the classroom.

Content Areas of Focus

Content areas of focus are the areas of instruction on which materials received by the NIMSC will focus. The NIMSC will designate no more than two content areas of focus every school year. Content areas of focus will always concentrate on grades kindergarten through grade 12.

Instructional Materials Rubric Process

The evaluation process for all instructional materials will include a material checklist complimenting a comprehensive rubric for scoring. The rubric has multiple categories for each content of review. The first category evaluates alignment to the Nevada Academic Content Standards and the overall score for category one must meet or exceed the criteria in order to continue in the review process. Additionally, category two evaluates the access and equity of a given instruction material; and, this category must also meet or exceed the criteria in the review process. If the material fails either of the first two categories, the material can be resubmitted at the next review cycle for that content area. Vendors have 30 days to provide in writing that they would be participating in the rebuttal process for their submission.

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

This evaluation process includes a checklist that outlines the criteria that must be evident in the material. Each category includes required elements that must be documented and supported within the columns labeled evidence and reasoning, respectively. The two documents must be used conjointly to evaluate and determine the overall score for the instructional material.

Please refer to The Nevada Department of Education [webpage](#) for details regarding this process.

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Category 1: Aligned to NVACs for Science

Criteria	Exceeds = 4	Meets = 3	Developing = 2	Limited = 1	Not Present = 0
Science and Engineering Practices (SEPs)	Instructional material is 100% aligned to the SEPs	Instructional material is 75-99% aligned to the SEPs	Instructional material is 50-74% aligned to the SEPs	Instructional material is 25-49% aligned to the SEPs	No alignment to the SEPs
Disciplinary Core Ideas (DCIs)	Instructional material is 100% aligned to the DCIs	Instructional material is 75-99% aligned to the DCIs	Instructional material is 50-74% aligned to the DCIs	Instructional material is 25-49% aligned to the DCIs	No alignment to the DCIs
Crosscutting Concepts (CCCs)	Instructional material is 100% aligned to the CCCs	Instructional material is 75-99% aligned to the CCCs	Instructional material is 50-74% aligned to the CCCs	Instructional material is 25-49% aligned to the CCCs	No alignment to the CCCs

Materials must measure meets/exceeds in ALL criteria.	Meet / Does Not Meet
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INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Category 2: Access and Equity

Exceeds = 4	Meets = 3			
<p>100% of grade level appropriate teacher supports are provided to guide teachers in making student learning relevant, ways for students to share their experiences, connections to previous experiences, draw and connect to language and culture, etc.</p>	<p>75-99% of grade level appropriate teacher supports are provided to guide teachers in making student learning relevant, ways for students to share their experiences, connections to previous experiences, draw and connect to language and culture, etc.</p>			
<p>Instructional materials are made accessible to all students by providing four or more supports AND scaffolds consistently throughout (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).</p>	<p>Instructional materials are made accessible to all students by providing at least three supports AND scaffolds consistently throughout (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).</p>			
<p>Provides four or more diverse opportunities for students to represent, share, justify, and revise their thinking consistently throughout the material.</p>	<p>Provides at least three diverse opportunities for students to represent, share, justify, and revise their thinking consistently throughout the material.</p>			
<p>Instructional materials provide appropriate images, text, and activities that represent the diversity of our current society in a culturally responsive manner throughout 100% of the material.</p>	<p>Instructional materials provide appropriate images, text, and activities, which represent the diversity of our current society in a culturally responsive manner throughout 75-99% of the material.</p>			

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Exceeds = 4	Meets = 3	Developing = 2	Limited = 1	Not Present = 0
Instructional materials include assurance from publishers agreeing to comply with the most current National Instructional Materials Accessibility Standard (NIMAS) specifications regarding accessible instructional materials.	N/A	N/A	N/A	N/A

Materials must measure meets/exceeds in ALL criteria.	Meet /Does Not Meet
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INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Category 3: Assessment

Exceeds = 4	Meets = 3	Developing = 2	Limited = 1	Not Present = 0
A coherent assessment system that includes four or more opportunities for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	A coherent assessment system that includes at least three opportunities for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	A coherent assessment system that includes at least two opportunities for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	A coherent assessment system that includes at least one opportunity for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	Assessment system includes no opportunities for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.
Both formative and summative assessments use four or more task types, to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	Both formative and summative assessments use at least three task types, to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	Both formative and summative assessments use at least two task types, to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	Both formative and summative assessments use at least one task type, to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.	Both formative and summative assessments do not use any task types, to include equitable considerations for culturally and linguistically diverse students consistently throughout the material.
The formative and summative assessments are aligned to 100% of the NVACS for Science.	The formative and summative assessments are aligned to 75-99% of the NVACS for Science.	The formative and summative assessments are aligned to 50-74% of the NVACS for Science.	The formative and summative assessments are aligned to 25-49% of the NVACS for Science.	The formative and summative assessments do not align to the NVACS for Science.
Both formative and summative assessments provide four or more opportunities for self, peer, and teacher feedback consistently throughout the material.	Both formative and summative assessments provide at least three opportunities for self, peer, and teacher feedback consistently throughout the material.	Both formative and summative assessments provide at least two opportunities for self, peer, and teacher feedback consistently throughout the material.	Both formative and summative assessments provide at least one opportunity for self, peer, and teacher feedback consistently throughout the material.	Formative and summative assessments do not provide opportunities for self, peer, and teacher feedback consistently throughout the material.

<p>TOTAL SCORE/POINTS POSSIBLE (0-16) Exceeds (16 points) Meets (12-15 points) Developing (8-11) Limited (4-7) Does Not Meet (0-3)</p>	<p>/16</p>
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INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Category 4: Teacher Instructional Resources which Support NVACS for Science

Exceeds = 4	Meets = 3	Developing = 2	Limited = 1	Not Present = 0
Four or more language practices are consistently utilized and embedded throughout the material to support students to develop grade-appropriate, subject-specific technical language.	At least three language practices are consistently utilized and embedded throughout the material to support students to develop grade-appropriate, subject-specific technical language.	At least two language practices are consistently utilized and embedded throughout the material to support students to develop grade-appropriate, subject-specific technical language.	At least one language practices are consistently utilized and embedded throughout the material to support students to develop grade-appropriate, subject-specific technical language.	No language practices are utilized and embedded in the material to support students to develop grade-appropriate, subject-specific technical language.
Four or more teacher resources include pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.	At least three teacher resources include pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.	At least two teacher resources include pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.	At least one teacher resource includes pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.	No teacher resources include pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.
Teacher resources include four or more instructional strategies, digital tools, and/or media examples to deepen student learning consistently throughout the material.	Teacher resources include at least three instructional strategies, digital tools, and/or media examples to deepen student learning consistently throughout the material.	Teacher resources include at least two instructional strategies, digital tools, and/or media examples to deepen student learning consistently throughout the material.	Teacher resources include only one instructional strategy, digital tool, and/or media example to deepen student learning consistently throughout the material.	Teacher resources do not include instructional strategies, digital tools, and/or media examples to deepen student learning.
Instructional materials are made accessible to all students by providing four or more supports AND scaffolds throughout the materials (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).	Instructional materials are made accessible to all students by providing at least three supports AND scaffolds (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).	Instructional materials are made accessible to all students by providing at least two supports AND scaffolds (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).	Instructional materials are made accessible to all students by providing only one support AND scaffold (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).	Instructional materials are not made accessible to all students and no supports or scaffolds are provided. (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

<p>TOTAL SCORE/POINTS POSSIBLE (0-16) Exceeds (16 points) Meets (12-15 points) Developing (8-11) Limited (4-7) Does Not Meet (0-3)</p>	<p>/16</p>
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INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

COLOR CODE FOR SCORING

Exceeds

Meets

Developing

Limited

Not Present

Category 1: Designed for NVACS for Science

Criteria	Evidence (reference the location in materials)	Reasoning
<p>1. Material supports all students in building understanding of AND using grade-level Science and Engineering Practices (SEPs) of the NVACS for Science that are deliberately selected to aid student sense-making of phenomena, student’s scientific questions, and/or designing of solutions</p> <ul style="list-style-type: none"> <input type="checkbox"/> Students engage in using the SEPs (including hands-on experiences) throughout the material and not only after information was provided. <input type="checkbox"/> Students engage in a sufficient number of SEP elements throughout each unit/topic in the material. <input type="checkbox"/> Students engage in building upon and/or using each SEP for a sufficient amount of time (as needed based on the elemental levels of the SEP at grade-level) throughout the instructional materials. <input type="checkbox"/> Students engage in building upon and/or using each SEP for a sufficient amount of time (as needed based on the elemental levels of the SEP at grade-level) throughout the instructional materials. <input type="checkbox"/> The SEPs that are claimed by the material match the evidence of SEP development and use by the students found within the material. <input type="checkbox"/> The main intent of the SEP elements with which students are engaging in service of student sense-making of phenomena, scientific 	<p><u>FOSS Modules – Grades 6-8</u></p> <p>Asking Questions and Defining Problems</p> <p>Developing and Using Models</p> <p>Planning and Carrying Out Investigations</p> <p>Analyzing and Interpreting Data</p> <p>Using Mathematics and Computational Thinking</p> <p>Constructing Explanations and Designing Solutions</p> <p>Engaging in argument from evidence</p> <p>Obtaining, Evaluating, and Communicating Information</p>	<p>This link provide numerous examples of strong supports for the NVACSS SEPs regarding most of SEPs at grade-level. This instructional material provides opportunities for Ss access the grade-level breadth and depth of the Nevada Academic Content Standards via Ss discovery.</p>

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<p>questions, and/or designing solutions to problems.</p>		
<p>2. Material supports all students in building understanding of AND using grade-level Disciplinary Core Ideas (DCIs) of the NVACS for Science that are deliberately selected to aid student sense-making of phenomena, student’s scientific questions, and/or designing of solutions.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Science content, whether in print or digital, is accurate and current. <input type="checkbox"/> Grade-appropriate based on progressions. <input type="checkbox"/> Majority of material is focused on supporting students in using grade-level DCIs based on the elemental levels. <input type="checkbox"/> The material gives/provides a limited amount of science content (material) which is extraneous to the grade-level DCIs. <input type="checkbox"/> If engineering is a learning focus, it must be integrated with developing additional disciplinary core ideas from physical, life, and/or earth and space sciences. 	<p><u>FOSS Modules – Grades 6-8</u></p> <p>Physical Science – Ss can access the DCIs below via this sample of activities:</p> <p>PS1.A: Structure and Properties of Matter (MS-PS1-1), (MS-PS1-2),(MS-PS1-3), (MS-PS1-4),</p> <p>PS1.B: Chemical Reactions (MS-PS1-2),(MS-PS1-3),(MS-PS1-5) · (MS-PS1-6)</p> <p>PS3.A: Definitions of Energy (secondary to MS- PS1-4)</p>	<p>These links provide numerous examples for Ss to access the DCIs to the breadth and depth to which they were intended.</p> <p>This instructional material provides supports for the NVACSS DCIs at grade level. In addition, the engineering core ideas are represented and threaded throughout the DCIs.</p>

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

ETS1.B: Developing Possible Solutions *(secondary to MS-PS1-6)*

ETS1.C: Optimizing the Design Solution *(secondary to MS-PS1-6)*

PS2.A: Forces and Motion (MS-PS2-1), (MS-PS2-2),

PS2.B: Types of Interactions (MS-PS2-3), (MS-PS2-5)

Science Resources Book “Potential and Kinetic Energy” “Avoiding Collisions” “Newton’s Laws”

Science Resources Book “How Fast Do Things Go?” “Faster and Faster” “Gravity: It’s the Law” Online Activities/Slide Show “Movie Tracker” “Movie Tracker Data” Falling Ball Analysis slide show Videos Falling Ball Hammer and Feather in Space

Science Resources Book “Engineering a Safer Car” “Collisions and Concussions” Video Understanding Car Crashes

Science Resources Book “Science Safety Rules” “White Substances Information” Online Activity “Two-Substance Reactions”

Science Resources Book “Elements” “Substances on Earth” “Elements in the

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Universe” Online Activity “Periodic Table of the Elements”

Science Resources Book “Particles”
“Three Phases of Matter” Online Activity
“Gas in a Syringe” Slide Show Particles in Gases

Science Resources Book “Particles in Motion” “Three Phases of Matter” (optional) “Expansion and Contraction” Online Activity “Particles in Solids, Liquids, and Gases”

Science Resources Book “Energy on the Move” Online Activities “Energy Transfer by Collision” “Mixing Hot and Cold Water” “Thermometer” “Energy Flow”

PS3.A: Definitions of Energy

(MS-PS3-3),(MS-PS3-4)

PS3.B: Conservation of

Energy and Energy Transfer

(MS-PS3-5), (MS-PS3-4), (MS-PS3-3)

PS3.C: Relationship Between

Energy and Forces (MS-PS3-2)

Science Resources Book “Science Safety Rules” “White Substances Information” Online Activity “Two-Substance Reactions”

Science Resources Book “Elements”
“Substances on Earth” “Elements in the Universe” Online Activity “Periodic Table of the Elements”

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Science Resources Book “Particles”
“Three Phases of Matter” Online Activity
“Gas in a Syringe” Slide Show Particles in Gases

ETS1.A: Defining and Delimiting an Engineering Problem (secondary to MS-PS3-3)

ETS1.B: Developing Possible Solutions (secondary to MS-PS3-3)

Science Resources Book “Engineering a Better Design” “Science Practices”
“Engineering Practices” Online Activities
“Energy Flow” “Particles in Solids, Liquids, and Gases”

PS4.A: Wave Properties (MS-PS4-1) (MS-PS4-2)

PS4.B: Electromagnetic Radiation (MS-PS4-2),

PS4.C: Information Technologies and Instrumentation (MS-PS4-3)

Science Resources Book “Transverse and Compression Waves” Online Activity
“Metronome” (optional) Video Standing Wave

Science Resources Book “Ocean Waves” “Tsunamis!” “The Tacoma Narrows Bridge Disaster” “Engineering Design Process” “Sound Waves”
“Acoustic Engineering” Online Activity
“Oscilloscope” Videos Big Waves Tacoma Narrows Bridge Collapse 1 Tacoma

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Narrows Bridge Collapse 2 Soundproof Engineering
Science Resources Book “Reflecting on Light” “Electromagnetic Spectra”
“Electromagnetic Radiation and Human Health” “Throw a Little Light on Sight!”
“Seismic Waves” Online Activity
“Refraction”
Science Resources Book “Lasers” “Digital Communication” “Telecommunication: From Telegraph to Smartphone” Online Activity “Digitized Images” Video Fiber Optics

Life Science – Ss can access the DCIs below via this sample of activities:

LS1.A: Structure and Function

(MS-LS1-1), (MS-LS1-2), (MS-LS1-3)

LS1.B: Growth and Development of Organisms

(MS-LS1-4), (MS-LS1-5)

LS1.C: Organization for Matter and Energy Flow in Organisms

(MS-LS1- 6), (MS-LS1-7)

LS1.D: Information Processing

(MS-LS1- 8)

PS3.D: Energy in Chemical Processes and Everyday Life

(secondary to MS-LS1-6), (secondary to MS-LS1-7)

Science Resources Book “Observations and Inferences” “Milkweed Bugs”

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Science Resources Book “Life in a Community” “Ecoscenario Introductions” “Defining a Biome” Online Activities “Ecoscenarios” “Biomes” Video Among the Wild Chimpanzees
Science Resources Book “An Introduction to Mono Lake” Online Activities “Mono Lake Food Web” “Ecoscenarios” Online Resource “Organism Database” (optional)
Video The Mono Lake Story

LS2.A: Interdependent Relationships in Ecosystems

(MS-LS2-1), (MS-LS2-2)

LS2.B: Cycle of Matter and Energy Transfer in

Ecosystems (MS-LS2-3)

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

(MS-LS2-4), (MS-LS2-5)

LS4.D: Biodiversity and Humans MS-LS2-5)

ETS1.B: Developing Possible Solutions (secondary to MS-LS2-5)

Science Resources Book “Biosphere 2: An Experiment in Isolation” Online Resources “Plant and Animal Care” “Organism Database” (optional)
Science Resources Book “Where Does Food Come From?” “Energy and Life” “What Does Water Do?” “Wangari Maathai: Being a Hummingbird” Online Activities “Ecoscenarios” (optional)
“Biomes” (optional)

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Science Resources Book "Rachel Carson and the Silent Spring" "Trophic Levels" "Decomposers"

Science Resources Book "Milkweed Bugs" "Limiting Factors" "Mono Lake throughout the Year" Online Activities "Milkweed Bugs, Unlimited" "Milkweed Bugs, Limited"

LS1.B: Growth and Development of Organisms

(secondary to MS- LS3-2)

LS3.A: Inheritance of Traits

(MS-LS3-1), (MS-LS3-2)

LS3.B: Variation of Traits (MS-LS3-2), (MS-LS3-1)

LS4.A: Evidence of Common Ancestry and Diversity (MS-LS4-1), (MS-LS4-2), (MS-LS4-3)

LS4.B Natural Selection (MS-LS4-4), (MS-LS4-5)

LS4.C: Adaptation (MS-LS4-6)

Science Resources Book "The Water-Conservation Problem" "Water, Light, and Energy" Online Activities "Database: Stomata Collection" and "Database: Stem Collection" "Plant Vascular System"

Science Resources Book "Breeding Salt-Tolerant Wheat" "The Making of a New Plant" "Seeds on the Move" Online Activities "Database: Flower Collection" "Database: Seed Collection" "Climate Blog" "Database: Pollinator Collection" "Pollinators Game" Video and Slide Show
Lab Techniques: Preparing the Flower

INSTRUCTIONAL MATERIALS RUBRIC – SCIENCE

Dissection Mount Nonflowering Plants
slide show
Science Resources Book “Mendel and
Punnett Squares” Video Genes and
Heredity

Earth and Space Science – Ss
can access the DCIs below via
this sample of activities:

**ESS1.A: The Universe and Its
Stars** (MS-ESS1-1), (MS-ESS1-2)

**ESS1.B: Earth and the Solar
System** (MS-ESS1-2),(MS- ESS1-3),
(MS-ESS1-1), (MS-ESS1-2)

**ESS1.C: The History of Planet
Earth** (MS-ESS1- 4)

Science Resources Book “Earth’s
Systems” Online Activities Google Earth™
“White House Views Collection” (optional)
“AstroBlog” “US Naval Moon Phase
Calendar” Slide Show Earth System
Images

Science Resources Book “The First
Voyage of Columbus” “Seasons on Earth”
“Eratosthenes: First to Measure Earth”
Online Activities “Latitude and Longitude”
“Day/Night” “Earth Models” (optional)
“Round Earth/Flat Earth” (optional)
“Libertad” (optional) “Seasons” “Sunrise
and Sunset Times”

**ESS1.C: The History of Planet
Earth** (secondary to MS-ESS2-3)

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ESS2.A: Earth's Materials and Systems. (MS-ESS2-1), (MS-ESS2-2)

ESS2.B: Plate Tectonics and Large-Scale System

Interactions (MS-ESS2-3)

ESS2.C: The Roles of Water in Earth's Surface Processes (MS-ESS2-4), (MS-ESS2-5), (MS-ESS2-4), (MS-ESS2-6), (MS-ESS2-2)

ESS2.D: Weather and Climate (MS-ESS2-6), (MS-ESS2-5)

Science Notebook Entry Landforms Tour
Anticipation Guide Rock observations
Grand Canyon rocks lineup Science
Resources Book "Seeing Earth" "Getting
to Know the Grand Canyon" "Powell's
Grand Canyon Expedition, 1869"
(optional)

Science Notebook Entry Fossil
observations Time Line Time Line
Calculations (optional) Colorado Plateau
correlation Index-Fossil Correlations
Index-Fossil Correlation Questions Rocks
over Time Science Resources Book "A
Fossil Primer" (optional) "Coconino
Stories" (optional) "Rocks, Fossils, and
Time" (optional) "Floating on a Prehistoric
Sea" (optional)

ESS3.A: Natural Resources
(MS-ESS3-1)

ESS3.B: Natural Hazards
(MS-ESS3-2)

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	<p>ESS3.C: Human Impacts on Earth Systems (MS-ESS3-3), (MS-ESS3-3),(MS-ESS3-4)</p> <p>ESS3.D: Global Climate Change (MS-ESS3-5)</p> <p>Science Resources Book “Climates: Past, Present, and Future” Online Activities Climate Blog “Greenhouse-Gas Simulator” “Human-Caused Sources of Carbon Dioxide” “Water Cycle” Videos CO₂ in the Ice Core Record Carbon Cycle Climate Change Basics Slide Show Earth’s Climate over Time</p> <p>ETS1.A: Defining and Delimiting Engineering Problems (MS-ETS1-1)</p> <p>ETS1.B: Developing Possible Solutions (MS-ETS1-4), (MS-ETS1-2), (MS-ETS1-3), (MS-ETS1-4)</p> <p>ETS1.C: Optimizing the Design Solution (MS-ETS1-3), (MS-ETS1-4)</p> <p>Science Resources Book “Home Insulation” Online Activities “Energy Transfer by Collision” “Energy Transfer: Conduction, Radiation, Convection” “Particles in Solids, Liquids, and Gases” “Thermometer” (optional) Video Conduction through Metals</p>	
<p>3. Material supports all students in building understanding of AND using grade-level Crosscutting Concepts (CCCs) of the NVACS for</p>	<p><u>Physical Science</u> <u>Life Sciences</u> <u>Earth/Space</u></p>	<p>These links provide evidence of strong supports for the all of the NVACSS CCCs. Grade level CCCs are covered throughout this</p>

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Science that are deliberately selected to aid student sense-making of phenomena, student's scientific questions, and/or designing of solutions.

- Students engage in using the CCCs throughout the material as a lens or language framework to explain and communicate their thinking and understanding.
- Students engage in a sufficient number of CCC elements throughout each unit/topic in the material.
- Students engage in building upon and/or using each CCC for a sufficient amount of time (as needed based on the elemental levels of the CCC at grade-level) throughout the instructional materials.
- The CCCs that are claimed by the material match the evidence of CCC development and use by the students found within the material.
- The main intent of the CCC elements with which students are engaging in service of student sense-making of phenomena, scientific questions, and/or designing solutions to problems.

Patterns

There are numerous examples of in Life, Physical and Earth/Space science.

Cause and Effect

There are numerous examples of in Life, Physical and Earth/Space science.

Scale, Proportion, and Quantity

There are numerous examples of in Life, Physical and Earth/Space science.

Energy and Matter

There are numerous examples of in Life, Physical and Earth/Space science.

Structure and Function

There are numerous examples of in Life, Physical and Earth/Space science.

Systems and System Models

There are numerous examples of in Life, Physical and Earth/Space science.

Stability and Change

material. Ss make observations and are asked to explain how they see phenomena in this context.

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	<p>There are numerous examples of in Life, Physical and Earth/Space science.</p>	
<p>4. The material supports all students within and throughout each unit/topic as they engage in the integrated use of practices, disciplinary core ideas, and crosscutting concepts together to make sense of real-world phenomena, their scientific questions, and/or to design solutions to problems. (This is both phenomena and three-dimensional sense-making)</p> <ul style="list-style-type: none"> <input type="checkbox"/> All students are figuring out, not just being presented with, phenomena, problems, or scientific questions. <input type="checkbox"/> Phenomena, problems, and/or scientific questions found throughout the material are made explicitly relevant and age appropriate (more than bookends for a topic) for all students. <input type="checkbox"/> Phenomena, problems, and/or scientific questions are authentic and experienced first-hand. <input type="checkbox"/> Phenomena, problems, and/or scientific questions require three-dimensional meaning making to “figure out”. <input type="checkbox"/> All students have opportunities for three-dimensional sense making of phenomena, problems, and/or scientific questions. <p>Examples look like:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Material supports students in generating questions and connecting prior experiences related to the phenomenon or problem AND these student questions are used to motivate sense-making and/or problem solving. <input type="checkbox"/> Material focus is on supporting students in making sense of phenomena and/or designing solutions to problems. 		

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<p>5. The material provides a coherent assessment system, which provides assessment opportunities for all students to generate evidence that reveals multi-dimensional understanding and receive feedback from teachers/peers.</p> <ul style="list-style-type: none"><input type="checkbox"/> Assessment opportunities are equitable both culturally and linguistically.<input type="checkbox"/> Assessment opportunities measure student understanding in two or more dimensions.<input type="checkbox"/> Instructional materials use a variety of measures and provide multiple assessment opportunities so that students can demonstrate their understanding of the same learning goals in a variety of ways.<input type="checkbox"/> Teacher guidance is provided to help interpret student understanding and progress toward learning targets.<input type="checkbox"/> Assessment opportunities generate evidence, which could be used for student feedback, in all three dimensions, which is greater than correct or incorrect.		
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COLOR CODE FOR SCORING

Exceeds

Meets

Developing

Limited

Not Present

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Category 2: Access and Equity

Criteria	Evidence	Reasoning
1. Grade level appropriate teacher supports are provided to guide teachers in making student learning relevant, ways for students to share their experiences, connections to previous experiences, etc.		
2. Provides diverse opportunities for students to represent, share, justify, and revise their thinking with equity of voice consistently throughout the material.		
3. Instructional materials provide appropriate images, text, and activities, which represent the diversity of our current society in a culturally responsive manner throughout the material.		
4. Instructional materials include assurance from publishers agreeing to comply with the most current National Instructional Materials Accessibility Standard (NIMAS) specifications regarding accessible instructional materials.		

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Category 3: Assessment

Criteria	Evidence	Reasoning
1. Coherent assessment system that includes multiple opportunities for pre-, embedded formative, summative, and self-assessment tasks to include equitable considerations for culturally and linguistically diverse students throughout a unit/topic and across the material.		
2. Both formative and summative assessments use a variety of task types, to include equitable considerations for culturally and linguistically diverse students, which occur multiple times		
3. Instructional materials (including formative and summative assessments) are designed to elicit direct, observable evidence to the NVACs for Science from all students.		
4. Both formative and summative assessment materials provide explicit support (e.g., sample responses, rubrics, scoring guidelines, etc.) to provide multiple opportunities for self, peer, and teacher feedback.		

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Category 4: Teacher Instructional Resources which Support NVACS for Science

Criteria	Evidence	Reasoning
1. Coherent supports to show how each content theme interrelates throughout the material.		
2. Instructional materials provide support for students to develop grade-appropriate, subject-specific specialized language in context through classroom discourse. (Language practices are utilized and embedded within instruction and subject-specific specialized language is embedded in the instruction sequence with supports.)		
3. Teacher resources include pedagogical background information (including relevant, contemporary research) to help teachers support all students throughout the instructional material.		
4. Teacher resources include a variety of instructional strategies, digital tools, and media to deepen student learning.		
5. Instructional materials are made accessible to all students by providing appropriate supports AND scaffolds (Supports include: differentiated reading material, language needs, etc., Scaffolds include: prompts, sentence frames, graphic organizers, anchor charts, etc.).		

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Reviewers' Comments:
