

ATTACHMENT NO. X-B: Approval of K-5 and 6-8 Science Curriculum Resources

Potential motion: Move to Approve the K-5 and 6-8 Science Curriculum Resources

Recommended action: Approve the motion.

Attached are six year quotes to purchase Science Curriculum resource materials from McGraw-Hill for Kindergarten through Eighth Grade. Inspire Science is the elementary program spanning Kindergarten through Fifth Grade. iScience is the middle level program for Sixth through Eighth Grade.

Purpose of Adoption: To provide teachers with the necessary resources to teach students in accordance with the Next Generation Science Standards (NGSS), which is the nationally adopted standard set that the state of Illinois adopted in 2014. This adoption will also provide curricular materials to support the varying levels of reading ability within a K-8 classroom.

Process to Adoption: The process of this adoption began as a part of the Science Committee work performed in collaborative meetings with teachers from around the district. While investigating and attempting to align the standards to current materials, teachers found that many standards could not be addressed in the expected way without new purchases. After choosing priority standards at each grade level, the Elementary and Middle School Science Committees began reviewing the wide array of materials on the market today. This consisted of the review of 15 different published materials. Teachers explored each series based on NGSS alignment, student engagement of the product, unit flexibility, and teacher supports. Out of this list each committee chose four to five publications to review with an in-depth rubric. The teachers on the committee were given the choice of two NGSS approved rubrics or to create their own to review these semi-finalists. The teachers chose the EQUiP Rubric, attached, which happened to be the most in-depth, in order to choose the best series to pilot. Two series from each committee (four total) came out as clear leaders, and a pilot was set-up. Besides committee members, additional teachers were brought in voluntarily to take part in the pilot. Each member taught a small unit out of each series and completed the North Boone School District Science Curriculum Examination rubric (attached) based on their experience. At the conclusion of the pilot the committees met, for an in-depth discussion of their experiences, collectively and individually, and the rubrics were analyzed. The findings of the pilot are summarized in the Pilot Summary document, also attached. Inspire Science and iScience had overall better ratings on the rubric than their counterparts. The curriculum coordinator worked with companies on pricing through multiple negotiations.

ATTACHMENT NO. X-B

Included in Adoption: If approved, all Kindergarten through Fourth Grade classroom teachers and Fifth through Eighth Grade Science teachers would receive all new materials and supports in an NGSS aligned curriculum. This includes printed materials, student and teacher online access, and equipment kits for labs. Consumable print materials at K-5 will be replaced each year for 6 years as a part of this adoption. Digital licensing for K-8 is also included for 6 years. Provided with the purchase is professional development days and timely supports from publisher representatives. Also in these materials are guided reading supports at the K-5 levels. This will not only extend science further throughout the day, but provide additional classroom materials for Reading class. At the 6-8 levels, as Science becomes a much more technical language, multiple reading supports are included in the dynamic online environment.

Cost of Adoption: Based on the process taken and the quality of the materials, it is recommended that the district approve the purchase Inspire Science for K-5th grade for \$67,500.50 and iScience for 6th-8th for \$21,294.77.

Adoption Attachments:

Inspire Science Quote

iScience Quote

EQuIP Rubric

North Boone School District Science Curriculum Examination Rubric

Pilot Summary



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QUOTE PREPARED FOR:

North Boone Comm Unit

SUBSCRIPTION/DIGITAL CONTACT:

Molly Lija
mlilja@nbcusd.org
815-765-2826

ACCOUNT NUMBER: 212240

CONTACT:

Molly Lija
mlilja@nbcusd.org
815-765-2826

SALES REP INFORMATION:

Scott Brand
scott.brand@mheducation.com

Section Summary	Value of All Materials	Free Materials	Product Subtotal
Inspire Science- 6Y Bundles			
Grade K	\$16,382.28	(\$8,517.18)	\$7,865.10
Grade 1	\$18,047.52	(\$8,517.18)	\$9,530.34
Grade 2	\$20,227.05	(\$8,517.18)	\$11,709.87
Grade 3	\$20,120.77	(\$9,240.49)	\$10,880.28
Grade 4	\$24,089.26	(\$9,240.49)	\$14,848.77
Grade 5	\$14,737.10	(\$6,278.36)	\$8,458.74
PRODUCT TOTAL*	\$113,603.98	(\$50,310.88)	\$63,293.10
ESTIMATED S&H**			\$4,207.40
ESTIMATED TAX**			TBD
GRAND TOTAL*			\$67,500.50

* Price firm for 45 days from quote date. Price quote must be attached to school purchase order to receive the quoted price and free materials.

**Shipping and handling charges shown are only estimates. Actual shipping and handling charges will be applied at time of order. Taxes are not included in the quote total. If applicable, actual tax charges will be applied at time of order.

Comments:

PLEASE INCLUDE THIS PROPOSAL WITH YOUR PURCHASE ORDER

SEND ORDER TO:

McGraw-Hill Education | PO Box 182605 | Columbus, OH 43218-2605
Email: orders_mhe@mheducation.com | Phone: 1-800-338-3987 | Fax: 1-800-953-8691

QUOTE DATE: 06/05/2017

ACCOUNT NAME: North Boone Comm Unit

EXPIRATION DATE: 07/20/2017

QUOTE NUMBER: DBURN-06052017-023

ACCOUNT #: 212240

PAGE #: 1



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Product Description	ISBN	Qty	Unit Price	Free Materials	Line Subtotal
Inspire Science- 6Y Bundles					

Inspire Science- 6Y Bundles Subtotal:

Grade K					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE K	978-0-07-679440-9	110	\$52.41		\$5,765.10
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE K	978-0-07-679984-8	7	\$822.51	\$5,757.57	*Free Materials
INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 48 BOOKS GRADE K	978-0-07-665908-1	7	\$250.23	\$1,751.61	*Free Materials
INSPIRE SCIENCE PAIRED READ ALOUD CLASS SET GRADE K	978-0-02-145674-1	7	\$144.00	\$1,008.00	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE K	978-0-07-898529-4	7	\$300.00		\$2,100.00
Grade K Subtotal:				\$8,517.18	\$7,865.10

Grade 1					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE 1	978-0-07-679445-4	120	\$52.41		\$6,289.20
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE 1	978-0-07-679992-3	7	\$822.51	\$5,757.57	*Free Materials
INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 48 BOOKS GRADE 1	978-0-07-665911-1	7	\$250.23	\$1,751.61	*Free Materials
INSPIRE SCIENCE PAIRED READ ALOUD CLASS SET GRADE 1	978-0-02-145675-8	7	\$144.00	\$1,008.00	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE 1	978-0-07-898530-0	7	\$463.02		\$3,241.14
Grade 1 Subtotal:				\$8,517.18	\$9,530.34

Grade 2					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE 2	978-0-07-679450-8	130	\$52.41		\$6,813.30
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE 2	978-0-07-680001-8	7	\$822.51	\$5,757.57	*Free Materials
INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 48 BOOKS GRADE 2	978-0-07-665914-2	7	\$250.23	\$1,751.61	*Free Materials
INSPIRE SCIENCE PAIRED READ ALOUD CLASS SET GRADE 2	978-0-02-145679-6	7	\$144.00	\$1,008.00	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE 2	978-0-07-898531-7	7	\$699.51		\$4,896.57
Grade 2 Subtotal:				\$8,517.18	\$11,709.87

Grade 3					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE 3	978-0-07-679455-3	68	\$52.41		\$3,563.88
INSPIRE SCIENCE DELUXE STUDENT NOTEBOOK/LEARN CENTER 6 YR SUBSC BUNDLE GRADE 3	978-0-07-679484-3	42	\$62.40		\$2,620.80
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE 3	978-0-07-680009-4	7	\$1,028.13	\$7,196.91	*Free Materials
INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 56 BOOKS GRADE 3	978-0-07-666091-9	7	\$291.94	\$2,043.58	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE 3	978-0-07-898532-4	7	\$670.80		\$4,695.60
Grade 3 Subtotal:				\$9,240.49	\$10,880.28

Grade 4					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE 4	978-0-07-679469-0	83	\$52.41		\$4,350.03
INSPIRE SCIENCE DELUXE STUDENT NOTEBOOK/LEARN CENTER 6 YR SUBSC BUNDLE GRADE 4	978-0-07-679492-8	42	\$62.40		\$2,620.80
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE 4	978-0-07-679967-1	7	\$1,028.13	\$7,196.91	*Free Materials

INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 56 BOOKS GRADE 4	978-0-07-666086-5	7	\$291.94	\$2,043.58	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE 4	978-0-07-898533-1	7	\$1,125.42		\$7,877.94

Grade 4 Subtotal: \$9,240.49 \$14,848.77

Grade 5					
INSPIRE SCIENCE BASIC STUDENT NOTEBOOK/LEARNING CENTER 6 YR SUBSC BUNDLE GRADE 5	978-0-07-679475-1	134	\$52.41		\$7,022.94
INSPIRE SCIENCE DELUXE STUDENT NOTEBOOK/LEARN CENTER 6 YR SUBSC BUNDLE GRADE 5	978-0-07-679501-7	6	\$62.40		\$374.40
INSPIRE SCIENCE BASIC TEACHER EDITION/LEARNING CENTER 6 YR SUB BUNDLE GRADE 5	978-0-07-679975-6	1	\$1,028.13	\$1,028.13	*Free Materials
INSPIRE SCIENCE LEVELED READER LIBRARY SET 6 EACH OF 48 BOOKS GRADE 5	978-0-07-666094-0	1	\$250.23	\$250.23	*Free Materials
INSPIRE SCIENCE 2.0 SMALL GROUP SCIENCE KIT GRADE 5	978-0-07-898534-8	1	\$1,061.40		\$1,061.40

Professional Development					
STAFF DEVELOPMENT	SD0000001	2	\$2,500.00	\$5,000.00	*Free Materials

Professional Development Subtotal: \$5,000.00

Grade 5 Subtotal: \$6,278.36 \$8,458.74

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QUOTE NUMBER: DBURN-06052017-023

ACCOUNT #: 212240

PAGE #: 3



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QUOTE PREPARED FOR:

North Boone Comm Unit

ACCOUNT NUMBER: 212240

CONTACT:

Molly Lilja
mlilja@nbcusd.org
815-765-2826

VALUE OF ALL MATERIALS	\$113,603.98
FREE MATERIALS	(\$50,310.88)
PRODUCT TOTAL*	\$63,293.10
ESTIMATED SHIPPING & HANDLING**	\$4,207.40
ESTIMATED TAX**	TBD
GRAND TOTAL	\$67,500.50

SUBSCRIPTION/DIGITAL CONTACT:

Molly Lilja
mlilja@nbcusd.org
815-765-2826

Comments:

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Name of School Official (Please Print)

Signature of School Official

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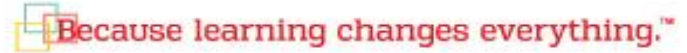
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SUBSCRIPTION/DIGITAL CONTACT:

Molly Lijja
mlijja@nbcusd.org
815-765-2826

SALES REP INFORMATION:

Carrie Guy
carrie.hultgren@mheducation.com
309-399-7072

Section Summary	Value of All Materials	Free Materials	Product Subtotal
Earth & Space iScience © 2017	\$4,220.97	(\$137.28)	\$4,083.69
Life iScience© 2017	\$10,840.32	(\$2,303.52)	\$8,536.80
Physical iScience © 2017	\$10,179.75	(\$2,073.75)	\$8,106.00
PRODUCT TOTAL*	\$25,241.04	(\$4,514.55)	\$20,726.49
ESTIMATED S&H**			\$568.28
ESTIMATED TAX**			TBD
GRAND TOTAL*			\$21,294.77

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QUOTE DATE: 06/05/2017
QUOTE NUMBER: DBURN-06052017-018

ACCOUNT NAME: North Boone Comm Unit
ACCOUNT #: 212240

EXPIRATION DATE: 07/20/2017
PAGE #: 1



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Product Description	ISBN	Qty	Unit Price	Free Materials	Line Subtotal
Earth & Space iScience © 2017					
EARTH & SPACE ISCIENCE XP CMLPTE STUDENT 6 YEAR SUBSCRIPTION BUNDLE	978-0-07-677751-8	30	\$92.64	\$0.00	\$2,779.20
EARTH & SPACE ISCIENCE XP ETEACHER EDITION 6 YEAR SUBSCRIPTION	978-0-07-679609-0	1	\$137.28	\$137.28	*Free Materials
EARTH & SPACE ISCIENCE NATIONAL CORE KIT (4 BOXES)	978-0-07-900548-9	1	\$1,304.49	\$0.00	\$1,304.49
Earth & Space iScience © 2017 Subtotal:				\$137.28	\$4,083.69
Life iScience© 2017					
LIFE ISCIENCE XP CMLPTE STUDENT 6 YEAR SUBSCRIPTION BUNDLE	978-0-07-677749-5	30	\$92.64	\$0.00	\$2,779.20
LIFE ISCIENCE XP ESTUDENT EDITION 6 YEAR SUBSCRIPTION	978-0-07-679607-6	60	\$76.59	\$0.00	\$4,595.40
LIFE ISCIENCE XP ESTUDENT EDITION 6 YEAR SUBSCRIPTION	978-0-07-679607-6	28	\$76.59	\$2,144.52	*Free Materials
LIFE ISCIENCE XP CMLPTE TEACHER 6 YEAR SUBSCRIPTION BUNDLE	978-0-07-677883-6	1	\$159.00	\$159.00	*Free Materials
LIFE ISCIENCE NATIONAL CORE KIT (5 BOXES)	978-0-07-900550-2	1	\$1,162.20	\$0.00	\$1,162.20
Life iScience© 2017 Subtotal:				\$2,303.52	\$8,536.80
Physical iScience © 2017					
PHYSICAL ISCIENCE XP CMLPTE STUDENT 6 YEAR SUBSCRIPTION BUNDLE	978-0-07-677747-1	30	\$92.64	\$0.00	\$2,779.20
PHYSICAL ISCIENCE XP ESTUDENT EDITION 6 YEAR SUBSCRIPTION	978-0-07-679608-3	50	\$76.59	\$0.00	\$3,829.50
PHYSICAL ISCIENCE XP ESTUDENT EDITION 6 YEAR SUBSCRIPTION	978-0-07-679608-3	25	\$76.59	\$1,914.75	*Free Materials
PHYSICAL ISCIENCE XP CMLPTE TEACHER 6 YEAR SUBSCRIPTION BUNDLE	978-0-07-677884-3	1	\$159.00	\$159.00	*Free Materials
PHYSICAL ISCIENCE NATIONAL CORE KIT (4 BOXES)	978-0-07-900551-9	1	\$1,497.30	\$0.00	\$1,497.30
Physical iScience © 2017 Subtotal:				\$2,073.75	\$8,106.00

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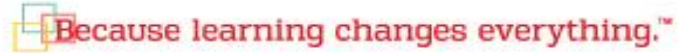
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CONTACT:

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VALUE OF ALL MATERIALS	\$25,241.04
FREE MATERIALS	(\$4,514.55)
PRODUCT TOTAL*	\$20,726.49
ESTIMATED SHIPPING & HANDLING**	\$568.28
ESTIMATED TAX**	TBD
GRAND TOTAL	\$21,294.77

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School Purchase Order Number: _____

Name of School Official (Please Print)

Signature of School Official

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ACCOUNT #: 212240

PAGE #: 3

EQIP Rubric for Lessons & Units: Science

Version 3.0

Publisher: _____

Resource Name: _____

Grade Level: _____

Evidence of Priority Standards?

Standard Code: (ie 1-LS3-1)	Quality of Evidence	Standard Code: (ie 1-LS3-1)	Quality of Evidence	Standard Code: (ie 1-LS3-1)	Quality of Evidence
	<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive
	<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive
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	<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive

EQIP Rubric for Lessons & Units: Science (Version 3.0)

Reviewer Name: _____

Lesson #'s/Unit Titles: _____

Category I: NGSS 3D Design (lessons and units): *The lesson/unit is designed so students make sense of phenomena and/or design solutions to problems by engaging in student performances that integrate the three dimensions of the NGSS.*

Lesson and Unit Criteria Lessons and units designed for the NGSS include clear and compelling evidence of the following:	Specific evidence from materials (what happened/where did it happen) and reviewer's reasoning (how/why is this evidence)		Evidence of Quality?	Reviewer Comments or Questions
A. Explaining Phenomena/Designing Solutions: Making sense of phenomena and/or designing solutions to a problem drive student learning. <ul style="list-style-type: none"> i. Student questions and prior experiences related to the phenomenon or problem motivate sense-making and/or problem solving. ii. The focus of the lesson is to support students in making sense of phenomena and/or designing solutions to problems. iii. When engineering is a learning focus, it is integrated with developing disciplinary core ideas from physical, life, and/or earth and space sciences. 			<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
B. Three Dimensions: Builds understanding of multiple grade-appropriate elements of the science and engineering practices (SEPs), disciplinary core ideas (DCIs), and crosscutting concepts (CCCs) <i>that are deliberately selected to aid student sense-making of phenomena and/or designing of solutions.</i> <ul style="list-style-type: none"> i. Provides opportunities to <i>develop and use</i> specific elements of the SEP(s). ii. Provides opportunities to <i>develop and use</i> specific elements of the DCI(s). iii. Provides opportunities to <i>develop and use</i> specific elements of the CCC(s). <p>Evidence needs to be at the <i>element level</i> of the dimensions (see rubric introduction for a description of what is meant by "element")</p>	Document evidence and reasoning, and evaluate whether or not there is sufficient evidence of quality for each dimension separately	Evidence of Quality? <input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive (All 3 dimensions must be rated at least "adequate" to mark "adequate" overall)	

<p>C. Integrating the Three Dimensions: Student sense-making of phenomena and/or designing of solutions requires student performances that integrate elements of the SEPs, CCCs, and DCIs.</p>		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
<p>Rating for Category I. NGSS 3D Design—lessons After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which there is enough evidence to support a claim that the lesson meets these criteria.</p> <p><i>If you are evaluating an instructional unit rather than a single lesson, continue on to evaluate criteria D-F and rate Category I overall below.</i></p>	<p>Lesson Rating scale for Category I (Criteria A–C only):</p> <p>3: Extensive evidence to meet at least two criteria (and at least adequate evidence for the third)</p> <p>2: Adequate evidence to meet all three criteria in the category</p> <p>1: Adequate evidence to meet at least one criterion in the category, but insufficient evidence for at least one other criterion</p> <p>0: Inadequate (or no) evidence to meet any of the criteria in the category</p>	<p>Circle Rating</p> <p>0 1 2 3</p> <p>After rating the lesson, read below for next steps</p>	

What’s next if the lesson rating is less than a 2?

*If the rubric is being used to approve or vet resources and the lesson or unit does not score at least a “2” in **Category I: NGSS 3D Designed**, the review should stop and feedback should be provided to the lesson developer(s) to guide revisions. If the rubric is being used locally for revising and building lessons, professional judgment should guide whether to continue reviewing the lesson. Categories II and III may be time consuming to evaluate if Category I has not been met and the feedback may not be useful if significant revisions are needed in Category I, but evaluating these criteria in a group may support deeper and more common understanding of the criteria in these categories and more complete feedback to the lesson developer (if they are not in the room) so that Categories II and III are more likely to be met with fewer cycles of revision.*

What’s next if the lesson rating is a 2 or 3?

If you are evaluating a lesson that shows sufficient evidence of quality to warrant a rating of either a 2 or a 3 for Category I, proceed to Category II: NGSS Instructional Supports

Category I: NGSS 3D Design (additional criteria for units only):

If you are evaluating a lesson, it is not necessary to evaluate criteria D–F. Please enter your rating for a single lesson above (after C).

Unit Criteria A unit or longer lesson designed for the NGSS will also include clear and compelling evidence of the following:	Specific evidence from materials and reviewers' reasoning	Evidence of Quality?	Reviewer Comments or Questions
D. Unit Coherence: Lessons fit together to target a set of performance expectations. <ul style="list-style-type: none"> i. Each lesson builds on prior lessons by addressing questions raised in those lessons, cultivating new questions that build on what students figured out, or cultivating new questions from related phenomena, problems, and prior student experiences. ii. The lessons help students develop toward proficiency in a targeted set of performance expectations. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
E. Multiple Science Domains: <i>When appropriate</i> , links are made across the science domains of life science, physical science and Earth and space science. <ul style="list-style-type: none"> i. Disciplinary core ideas from different disciplines are used together to explain phenomena. ii. The usefulness of crosscutting concepts to make sense of phenomena or design solutions to problems <i>across science domains</i> is highlighted. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
F. Math and ELA: Provides grade-appropriate connection(s) to the Common Core State Standards in Mathematics and/or English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
Rating for Category I. NGSS 3D Designed—units After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which the criteria are met across the unit.	Unit Rating Scale for Category I (Criteria A–F): 3: At least adequate evidence for all of the unit criteria in the category; extensive evidence for criteria A–C 2: At least some evidence for all unit criteria in Category I (A–F); adequate evidence for criteria A–C 1: Adequate evidence for some criteria in Category I, but inadequate/no evidence for at least one criterion A–C 0: Inadequate (or no) evidence to meet any criteria in Category I (A–F)		Circle Rating 0 1 2 3

*If the rubric is being used to approve or vet resources and the unit does not score at least a “2” overall in **Category I: NGSS 3D Design**, the review should stop here and feedback should be provided to the unit developer(s) to guide revisions. If the rubric is being used locally for revising and building units, professional judgment should be used on whether or not to continue reviewing the unit. For example, a unit that is weak in one aspect of criterion A, but that the reviewers think is easy to fix, might warrant continued review to provide more complete feedback to the unit developer(s).*

Category II: NGSS Instructional Supports (lessons and units): *The lesson/unit supports three-dimensional teaching and learning for ALL students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students.*

Lesson and Unit Criteria Lessons and units designed for the NGSS include clear and compelling evidence of the following:	Specific evidence from materials and reviewers' reasoning	Evidence of Quality?	Reviewer Comments or Questions
A. Relevance and Authenticity: Engages students in authentic and meaningful scenarios that reflect the practice of science and engineering as experienced in the real world. <ol style="list-style-type: none"> i. Students experience phenomena or design problems as directly as possible (firsthand or through media representations). ii. Includes suggestions for how to connect instruction to the students' home, neighborhood, community and/or culture as appropriate. iii. Provides opportunities for students to connect their explanation of a phenomenon and/or their design solution to a problem to questions from their own experience. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
B. Student Ideas: Provides opportunities for students to express, clarify, justify, interpret, and represent their ideas and respond to peer and teacher feedback orally and/or in written form as appropriate.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
C. Building Progressions: Identifies and builds on students' prior learning <u>in all three dimensions</u> , including providing the following support to teachers: <ol style="list-style-type: none"> i. Explicitly identifying prior student learning expected for all three dimensions ii. Clearly explaining how the prior learning will be built upon. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	

<p>D. Scientific Accuracy: Uses scientifically accurate and grade-appropriate scientific information, phenomena, and representations to support students' three-dimensional learning.</p>		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
<p>E. Differentiated Instruction: Provides guidance for teachers to support differentiated instruction by including:</p> <ul style="list-style-type: none"> i. Appropriate reading, writing, listening, and/or speaking alternatives (e.g., translations, picture support, graphic organizers, etc.) for students who are English language learners, have special needs, or read well below the grade level. ii. Extra support (e.g., phenomena, representations, tasks) for students who are struggling to meet the targeted expectations. iii. Extensions for students with high interest or who have already met the performance expectations to develop deeper understanding of the practices, disciplinary core ideas, and crosscutting concepts. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
<p>Rating for Category II: Instructional Supports—lessons After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which the lesson met this category.</p> <p><i>If you are evaluating an instructional unit rather than a single lesson, continue on to evaluate criteria F–G and rate Category II overall below.</i></p>	<p>Lesson Rating scale for Category II (Criteria A-E only):</p> <p>3: At least adequate evidence for all criteria in the category; extensive evidence for at least one criterion</p> <p>2: Some evidence for all criteria in the category and adequate evidence for at least four criteria, including A</p> <p>1: Adequate evidence of quality for at least two criteria in the category</p> <p>0: Adequate evidence of quality for no more than one criterion in the category</p>		<p>Circle Rating</p> <p>0 1 2 3</p>

Category II: NGSS Instructional Supports (additional criteria for units only)

If you are evaluating a lesson, it is not necessary to evaluate criteria F–G. Please enter your rating for a lesson above (after E).

Unit Criteria A unit or longer lesson designed for the NGSS will also include clear and compelling evidence of the following:	Specific evidence from materials and reviewers' reasoning	Evidence of Quality?	Reviewer Comments or Questions
F. Teacher Support for Unit Coherence: Supports teachers in facilitating coherent student learning experiences over time by: <ul style="list-style-type: none"> i. Providing strategies for linking student engagement across lessons (e.g. cultivating new student questions at the end of a lesson in a way that leads to future lessons, helping students connect related problems and phenomena across lessons, etc.). ii. Providing strategies for ensuring student sense-making and/or problem-solving is linked to learning in all three dimensions. 		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
G. Scaffolded differentiation over time: Provides supports to help students engage in the practices as needed and gradually adjusts supports over time so that students are increasingly responsible for making sense of phenomena and/or designing solutions to problems.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
Rating for Category II: NGSS Instructional Supports—units After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which the criteria are met across the unit.	Unit rating scale for Category II (Criteria A-G): 3: At least adequate evidence for all criteria in the category; extensive evidence for at least two criteria 2: Some evidence for all criteria in the category and adequate evidence for at least five criteria, including A 1: Adequate evidence for at least three criteria in the category 0: Adequate evidence for no more than two criteria in the category		Circle Rating 0 1 2 3

Category III: Monitoring NGSS Student Progress (lessons and units) *The lesson/unit supports monitoring student progress in all three dimensions of the NGSS as students make sense of phenomena and/or design solutions to problems.*

Lesson and Unit Criteria Lessons and units designed for the NGSS include clear and compelling evidence of the following:	Specific evidence from materials and reviewers' reasoning	Evidence of Quality?	Reviewer Comments or Questions
A. Monitoring 3D student performances: Elicits direct, observable evidence of three-dimensional learning; students are using practices with core ideas and crosscutting concepts to make sense of phenomena and/or to design solutions.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
B. Formative: Embeds formative assessment processes throughout that evaluate student learning to inform instruction.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
C. Scoring guidance: Includes aligned rubrics and scoring guidelines that provide guidance for interpreting student performance along the three dimensions to support teachers in (a) planning instruction and (b) providing ongoing feedback to students.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
D. Unbiased tasks/items: Assesses student proficiency using methods, vocabulary, representations, and examples that are accessible and unbiased for all students.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
Rating for Category III. Monitoring NGSS Student Progress—lessons After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which the lesson met this category. <i>If you are evaluating an instructional unit rather than a single lesson, continue on to evaluate criteria E–F and rate Category III overall below.</i>	Lesson Rating scale for Category III (Criteria A–D only): 3: At least adequate evidence for all criteria in the category; extensive evidence for at least one criterion 2: Some evidence for all criteria in the category and adequate evidence for at least three criteria, including A 1: Adequate evidence for at least two criteria in the category 0: Adequate evidence for no more than one criterion in the category		Circle Rating 0 1 2 3

Category III: Monitoring NGSS Student Progress (additional criteria for units only)

If you are evaluating a lesson, it is not necessary to evaluate criteria E–F. Please enter your rating for a lesson above (after D).

Unit Criteria A unit or longer lesson designed for the NGSS will also include clear and compelling evidence of the following:	Specific evidence from materials and reviewers' reasoning	Evidence of Quality?	Reviewer Comments or Questions
E. Coherent Assessment system: Includes pre-, formative, summative, and self-assessment measures that assess three-dimensional learning.		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
F. Opportunity to learn: Provides multiple opportunities for students to demonstrate performance of practices connected with their understanding of disciplinary core ideas and crosscutting concepts and receive feedback		<input type="checkbox"/> None <input type="checkbox"/> Inadequate <input type="checkbox"/> Adequate <input type="checkbox"/> Extensive	
Rating for Category III: Monitoring NGSS Student Progress—units After carefully weighing the evidence, reasoning, and suggestions for improvement, rate the degree to which the criteria are met across the unit.	Unit Rating scale for Category II (Criteria A–G): 3: At least adequate evidence for all criteria in the category; extensive evidence for at least one criterion 2: Some evidence for all criteria in the category and adequate evidence for at least five criteria, including A 1: Adequate evidence for at least three criteria in the category 0: Adequate evidence for no more than two criteria in the category		Circle Rating 0 1 2 3

Category Ratings:

Transfer your team's ratings from each category to the following chart and add the scores together for the overall score:

Category ratings				Total Score
Category I: NGSS 3D Design	Category II: NGSS Instructional Supports	Category III: Monitoring NGSS Student Progress		
0 1 2 3	0 1 2 3	0 1 2 3		

<p>Overall ratings: The score total is an <i>approximate</i> guide for the rating. Reviewers should use the evidence of quality across categories to guide the final rating. In other words, the rating could differ from the total score recommendations if the reviewer has evidence to support this variation.</p>	<p>E: Example of high quality NGSS design—High quality design for the NGSS across all three categories of the rubric; a lesson or unit with this rating will still need adjustments for a specific classroom, but the support is there to make this possible; exemplifies most criteria across Categories I, II, & III of the rubric. (total score ~8–9)</p> <p>E/I: Example of high quality NGSS design if Improved—Adequate design for the NGSS, but would benefit from some improvement in one or more categories; most criteria have at least adequate evidence (total score ~6–7)</p> <p>R: Revision needed—Partially designed for the NGSS, but needs significant revision in one or more categories (total ~3–5)</p> <p>N: Not ready to review—Not designed for the NGSS; does not meet criteria (total 0–2)</p>	Circle the overall rating below:
		<p>E E/I R N</p>

Overall Summary Comments:

Product Title:

Reviewer Name/Grade:

Curricular Alignment							
Criteria Points	Low-End Continuum	1 (Inadequate)	2	3	4	5 (Extensive)	High-End Continuum
Alignment to the intent of the NGSS	Teacher Centered (e.g. Lecture, traditional) Not Grade Appropriate						Obvious, explicit, coherent integration of all dimensions and student performance expectations , supports math and ELA
Alignment to the three- dimensional learning of the NGSS							Purposefully integrates Disciplinary Core Ideas (DCI), Science and Engineering Practices (SEP), Cross Cutting Concepts (CCC) Obvious, Explicit, Coherent, and Grade Appropriate.
How are students engaged in Science and Engineering?							Meaningful activities Hands-on, minds-on, utilize the science and engineering practices Problem Based Learning Variety of open-ended investigations.
English Language Arts and Math							Evidence of ELA and Math with purposeful integration

Real World Connections								Real World scenarios, career connections, links to current events, science outside the classroom, professionals, and locations
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Comments:

Equity and Accessibility							
Criteria Points	Low-End Continuum	1	2	3	4	5	High-End Continuum
Meeting the Needs of All Students	Teacher Centered (e.g. Lecture, traditional) Not Grade Appropriate						Resources do not limit students based on race, language, or other demographics
Readability							Text reading level is rigorous and allows students of all reading levels opportunities for success; Differentiated Resources.
Learning Styles							There are multiple learning opportunities for students of different learning styles.

Comments:

Organization, Presentation, and Teacher Support							
Criteria Points	Low-End Continuum	1	2	3	4	5	High-End Continuum
Graphics and Illustrations	Teacher Centered (e.g. Lecture, traditional) Not Grade Appropriate						Visually appealing, relevant, modern, and meaningful to students.
Technology							The resources have varied degrees of online resources that can enhance the students learning.
Teacher Support							Science and Engineering background information, ongoing PD , easily organized and easy to use, provides varied pacing options.
Supplies and Materials							Readily available, well organized.
Unit Order							Units or Modules are able to be taught in any order and are not dependent upon one another.

Comments:

Assessment							
Criteria Points	Low-End Continuum	1	2	3	4	5	High-End Continuum
Questioning Strategies	Teacher Centered (e.g. Lecture, Paper & Pencil traditional) Not Grade Appropriate						Varied methods of assessment in line with NGSS Performance Expectations
Multiple Assessments							Varied methods of assessment in line with NGSS (i.e. formative, summative, hands-on performance tasks.)

Comments:

Totals				
Curricular Alignment		Organization and Presentation		Overall Total:
Equity and Accessibility		Assessment		

Final Comments: