



F.1 Science - Grade 1

PUBLISHER/PROVIDER MATERIAL INFORMATION (TO BE COMPLETED BY PUBLISHER/PROVIDER)

Publisher/Provider Name/Imprint:	Amplify Education, Inc.	Grade(s):	1
Title of Student Edition:	Amplify Science Grade 1 Student Book (6 Pack) Bundle	Student Edition ISBN:	9781644828229
Title of Teacher Edition:	Amplify Science Grade 1 Digital Experience Teacher License, 6 year	Teacher Edition ISBN:	9798885700245
Title of SE Workbook:	Amplify Science Grade 1 Student Investigation Notebook Bundle	SE Workbook ISBN:	9781643330600

PUBLISHER/PROVIDER CITATION VIDEO: Reviewer must view video before starting the review of this set of materials.

Citation Video Link:	Amplify Science K-5 Form F Citation Video		
Citation video certification:	I certify that I have viewed the citation video for this specific publisher and set of materials.		
Digital Material Log In (if applicable):	Website: http://learning.amplify.com	Student Acct. Username: s.scik-5@tryamplify.net Teacher Acct. Username: t.scik-5@tryamplify.net	Password: AmplifyNumber1

Section 1: Standards Review: Science

Abbreviations for the Form F Standards Review Tab:

- PE: Performance Expectation
- DCI: Disciplinary Core Idea
- SEP: Science and Engineering Practices
- CCC: Crosscutting Concepts
- CONN: Connections
- NM: NM STEM Ready Standard
- CCSS: Common Core State Standards for ELA/Literacy in Science and Common Core State Standards for Math in Science as identified in the NGSS

PUBLISHER/PROVIDER INSTRUCTIONS:

- Publisher/Provider citations for this section will refer to the Teacher Edition (teacher-facing core material). The cited Teacher Edition should correspond with the title and ISBN entered on the Form F cover page, whether in print, online, or both. The review set submitted to the summer review institute should also correspond with what is cited on the Form F. If the review set is an online platform only, then that is what should be cited on the Form F and submitted for review by the review teams. If the review set is in print only, then that is what should be cited on the Form F and submitted for review by the review teams.
- For this section, the publisher/provider will enter one citation per DCI, SEP, CCC, CONN, and NM standard in Column D. Each citation should direct the reviewer to a specific location in the materials that best meets the standard. The citations should be concise and should allow the reviewer to easily determine that all components of the standard have been met. **Each citation should cover no more than 3 pages within the materials.** Any cells grayed out do not require a citation.
 - Column D: Enter one citation in Column D from the Teacher Edition (teacher-facing core material). Each citation should direct the reviewer to a specific location in the materials that best meets the standard. The cited material for each DCI, SEP, CCC, and CONN must directly relate to the PE under which they fall.
- The material will be scored for alignment with each DCI, SEP, CCC, CONN, and NM standard within each PE as "Meets expectations", "Partially meets expectations", or "Does not meet expectations" based on the citations provided. A score for the PE will be derived from the related DCIs, SEPS, CCCs, CONNs, and NM Standards within the PE.
 - **NOTE: You may not use a citation more than once across ALL sections of the rubric.**

Criteria #	Standard Identifier	F.1 Grade 1 Science Standards Review:	Publisher/Provider Citation from Teacher Edition	Score	If Scored D: Reviewer's Evidence for Publisher Citation	Reviewer Citation from Student Edition/Workbook	Score	Required: Reviewer's Evidence	Comments, other citations, notes
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Waves and Their Applications in Technologies for Information Transfer

1	PE	1-PS4-1. Students who demonstrate understanding can: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.							
2	DCI	PS4.A: Wave Properties • Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1)	<i>Light and Sound</i> Chapter 4, Lesson 4.2 Activity 3 (slides 16–18)						
3	SEP	Planning and Carrying Out Investigations <i>Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.</i> • Plan and conduct investigations collaboratively to produce data to serve as the basis for evidence to answer a question. (1-PS4-1)	<i>Light and Sound</i> Chapter 4, Lesson 4.2 Activity 2 (slides 7–15)						
4	CONN	Scientific Investigations Use a Variety of Methods • Science investigations begin with a question. (1-PS4-1)	<i>Light and Sound</i> Chapter 4, Lesson 4.1 Activity 3 (slides 15–27)						
5	CONN	Scientific Investigations Use a Variety of Methods • Scientists use different ways to study the world. (1-PS4-1)	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.2 Activity 3 (slides 23–32)						
6	CCC	Cause and Effect • Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-1)	<i>Light and Sound</i> Chapter 4, Lesson 4.3 Activity 1 (slides 2–15)						
7	PE	1-PS4-2. Students who demonstrate understanding can: Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.							
8	DCI	PS4.B: Electromagnetic Radiation • Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2)	<i>Light and Sound</i> Chapter 1, Lesson 1.2 Activity 3 (slides 22–30)						
9	SEP	Constructing Explanations and Designing Solutions <i>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</i> • Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena (1-PS4-2)	<i>Spinning Earth</i> Chapter 5, Lesson 5.3 Activity 1 (slides 4–18)						
10	CCC	Cause and Effect • Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-2)	<i>Light and Sound</i> Chapter 4, Lesson 4.6 Activity 1 (slides 2–12)						
11	PE	1-PS4-3. Students who demonstrate understanding can: Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.							

12	DCI	PS4.B: Electromagnetic Radiation <ul style="list-style-type: none"> Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1-PS4-3) 	<i>Light and Sound</i> Chapter 3, Lesson 3.1 Activity 2 (slides 18–24)					
13	SEP	Planning and Carrying Out Investigations <i>Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.</i> <ul style="list-style-type: none"> Plan and conduct investigations collaboratively to produce evidence to answer a question. (1-PS4-3) 	<i>Spinning Earth</i> Chapter 5, Lesson 5.2 Activity 1 (slides 7–17)					
14	CCC	Cause and Effect <ul style="list-style-type: none"> Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-3) 	<i>Light and Sound</i> Chapter 1, Lesson 1.4 Activity 3 (slides 27–37)					
15	PE	1-PS4-4. Students who demonstrate understanding can: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.						
16	DCI	PS4.C: Information Technologies and Instrumentation <ul style="list-style-type: none"> People also use a variety of devices to communicate (send and receive information) over long distances. (1-PS4-4) 	<i>Light and Sound</i> Chapter 4, Lesson 4.5 Activity 3 (slides 11–17)					
17	SEP	Constructing Explanations and Designing Solutions <i>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</i> <ul style="list-style-type: none"> Use tools and materials provided to design a device that solves a specific problem. (1-PS4-4) 	<i>Light and Sound</i> Chapter 1, Lesson 1.1 Activity 2 (slides 20–27)					
18	CONN	Influence of Engineering, Technology, and Science, on Society and the Natural World <ul style="list-style-type: none"> People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4) 	<i>Light and Sound</i> Chapter 1, Lesson 1.1 Activity 4 (slides 41–45) , including Teacher Support Note, " Instructional Suggestion, Nature of Science: Connecting to Engineering, Technology and Applications of Science " linked to on slide 41					
From Molecules to Organisms: Structures and Processes								
19	PE	1-LS1-1. Students who demonstrate understanding can: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.						
20	DCI	LS1.A: Structure and Function <ul style="list-style-type: none"> All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1) 	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.2 Activity 1 (slides 2–16) , including Teacher Support Note, " Background, About the Book: Tortoise Parts " linked to on slide 2					
21	DCI	LS1.D: Information Processing <ul style="list-style-type: none"> Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.4 Activity 2 (slides 25–30) , including Teacher Support Notes in the Teacher Activity, "Background, Science Note: Plants Grow Toward the Light" linked to on slide 14					

22	SEP	Constructing Explanations and Designing Solutions <i>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</i> <ul style="list-style-type: none"> Use materials to design a device that solves a specific problem or a solution to a specific problem. (1-LS1-1) 	<i>Animal and Plant Defenses</i> Chapter 2, Lesson 2.8 Activity 1 (slides 2–8)					
23	CCC	Structure and Function <ul style="list-style-type: none"> The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1) 	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.3 Activity 3 (slides 43–51)					
24	CONN	Influence of Engineering, Technology, and Science on Society and the Natural World <ul style="list-style-type: none"> Every human-made product is designed by applying some knowledge of the natural world and is built by built using materials derived from the natural world. (1-LS1-1) 	<i>Animal and Plant Defenses</i> Chapter 2, Lesson 2.8 Activity 1 (slides 9–18)					
25	PE	1-LS1-2. Students who demonstrate understanding can: Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.						
26	DCI	LS1.B: Growth and Development of Organisms <ul style="list-style-type: none"> Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.2 Activity 3 (slides 26–31)					
27	SEP	Obtaining, Evaluating, and Communicating Information <i>Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.</i> <ul style="list-style-type: none"> Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (1-LS1-2) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.2 Activity 1 (slides 2–13)					
28	CONN	Scientific Knowledge is Based on Empirical Evidence <ul style="list-style-type: none"> Scientists look for patterns and order when making observations about the world. (1-LS1-2) 	<i>Spinning Earth</i> Chapter 4, Lesson 4.2 Activity 2 (slides 13–24) , including Teacher Support Notes, " Rationale, Pedagogical Goals: Understanding the Nature of Science " linked to on slide 13					
29	CCC	Patterns <ul style="list-style-type: none"> Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.3 Activity 2 (slides 20–35)					
Heredity: Inheritance and Variation of Traits								
30	PE	1-LS3-1. Students who demonstrate understanding can: Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.						
31	DCI	LS3.A: Inheritance of Traits <ul style="list-style-type: none"> Young animals are very much, but not exactly, like their parents. Plants also are very much, but not exactly, like their parents. (1-LS3-1) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.1 Activity 2 (slides 9–16)					
32	DCI	LS3.B: Variation of Traits <ul style="list-style-type: none"> Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1) 	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.1 Activity 3 (slides 17–25)					
33	SEP	Constructing Explanations and Designing Solutions <i>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</i> <ul style="list-style-type: none"> Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1-LS3-1) 	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.5 Activity 1 (slides 10–16)					
34	CCC	Patterns <ul style="list-style-type: none"> Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. (1-LS3-1) 	<i>Light and Sound</i> Chapter 4, Lesson 4.2 Activity 3 (slides 19–20)					
Earth's Place in the Universe								
35	PE	1-ESS1-1. Students who demonstrate understanding can: Use observations of the sun, moon, and stars to describe patterns that can be predicted.						

36	DCI	ESS1.A: The Universe and its Stars <ul style="list-style-type: none"> Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1) 	<i>Spinning Earth</i> Chapter 3, Lesson 3.3 Activity 2 (slides 8–15)						
37	SEP	Analyzing and Interpreting Data <i>Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.</i> <ul style="list-style-type: none"> Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (1-ESS1-1) 	<i>Spinning Earth</i> Chapter 5, Lesson 5.2 Activity 2 (slides 18–24)						
38	CCC	Patterns <ul style="list-style-type: none"> Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1) 	<i>Spinning Earth</i> Chapter 4, Lesson 4.2 Activity 4 (slides 30–42)						
39	CONN	Scientific Knowledge Assumes an Order and Consistency in Natural Systems <ul style="list-style-type: none"> Science assumes natural events happen today as they happened in the past. (1-ESS1-1) 	<i>Spinning Earth</i> Chapter 1, Lesson 1.3 Activity 3 (slides 19–28)						
40	CONN	Scientific Knowledge Assumes an Order and Consistency in Natural Systems <ul style="list-style-type: none"> Many events are repeated. (1-ESS1-1) 	<i>Spinning Earth</i> Chapter 3, Lesson 3.5 Activity 3 (slides 24–38)						
41	PE	1-ESS1-2. Students who demonstrate understanding can: Make observations at different times of year to relate the amount of daylight to the time of year.							
42	DCI	ESS1.B: Earth and the Solar System <ul style="list-style-type: none"> Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2) 	<i>Spinning Earth</i> Chapter 5, Lesson 5.2 Activity 2 (slides 18–24)						
43	SEP	Planning and Carrying Out Investigations <i>Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.</i> <ul style="list-style-type: none"> Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2) 	<i>Spinning Earth</i> Chapter 3, Lesson 3.3 Activity 3 (slides 25–32)						
44	CCC	Patterns <ul style="list-style-type: none"> Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-2) 	<i>Spinning Earth</i> Chapter 4, Lesson 4.2 Activity 1 (slides 2–12)						
New Mexico Science and Society:									
45	NM	1-SS-1 NM: Obtain information about how men and women of all ethnic and social backgrounds in New Mexico have worked together to advance science and technology.	<i>Spinning Earth</i> Chapter 4, Lesson 4.2 Activity 2 Teacher Support Note, " Instructional Suggestion, Going Further: Researching Local Scientists or Engineers " linked to on slide 13						
Engineering Design:									
46	PE	K-2-ETS1-1. Students who demonstrate understanding can: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.							
47	DCI	ETS1.A: Defining and Delimiting Engineering Problems <ul style="list-style-type: none"> A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1) 	<i>Light and Sound</i> Chapter 4, Lesson 4.1 Activity 1 (slides 2–9)						
48	DCI	ETS1.A: Defining and Delimiting Engineering Problems <ul style="list-style-type: none"> Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1) 	<i>Light and Sound</i> Chapter 1, Lesson 1.2 Activity 3 (slides 22–30)						
49	DCI	ETS1.A: Defining and Delimiting Engineering Problems <ul style="list-style-type: none"> Before beginning to design a solution, it is important to clearly understand the problem. (K-2-ETS1-1) 	<i>Light and Sound</i> Chapter 1, Lesson 1.5 Activity 3 (slides 27–40)						
50	SEP	Asking Questions and Defining Problems <i>Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.</i> <ul style="list-style-type: none"> Ask questions based on observations to find more information about the natural and/or designed world. (K-2-ETS1-1) 	<i>Light and Sound</i> Chapter 1, Lesson 1.1 Activity 1 (slides 2–19)						

51	SEP	Asking Questions and Defining Problems <i>Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.</i> ▪ Define a simple problem that can be solved through the development of a new or improved object or tool. (K-2-ETS1-1)	<i>Light and Sound</i> Chapter 1, Lesson 1.1 Activity 3 (slides 28–40)					
52	PE	K-2-ETS1-2. Students who demonstrate understanding can: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.						
53	DCI	ETS1.B: Developing Possible Solutions ▪ Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2)	<i>Animal and Plant Defenses</i> Chapter 2, Lesson 2.8 Activity 2 (slides 19–32)					
54	SEP	Developing and Using Models <i>Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.</i> ▪ Develop a simple model based on evidence to represent a proposed object or tool. (K-2-ETS1-2)	<i>Animal and Plant Defenses</i> Chapter 2, Lesson 2.8 Activity 3 (slides 33–39)					
55	CCC	Structure and Function ▪ The shape and stability of structures of natural and designed objects are related to their function(s). (K-2-ETS1-2)	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.3 Activity 3 Teacher Support Notes, " Background, Crosscutting Concept: What is Meant by Structure and Function? " and " Background, Crosscutting Concept: Structure and Function Across This Unit " linked to on slide 38					
56	PE	K-2-ETS1-3. Students who demonstrate understanding can: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.						
57	DCI	ETS1.C: Optimizing the Design Solution ▪ Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1-3)	<i>Light and Sound</i> Chapter 2, Lesson 2.4 Activity 3 (slides 13–22)					
58	SEP	Analyzing and Interpreting Data <i>Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.</i> ▪ Analyze data from tests of an object or tool to determine if it works as intended. (K-2-ETS1-3)	<i>Light and Sound</i> Chapter 2, Lesson 2.4 Activity 4 (slides 23–31)					

CCSS for ELA/Literacy and Math in Grade 1 NGSS
• NOTE: The standards noted at the end of each CCSS (such as (HS-ESS1-1), (HS-ESS1-2), (HS-ESS1-5)) are the occurrences of the CCSS within the NGSS.

Grade 1 CCSS ELA/Literacy								
59	CCSS ELA/Literacy	RI.1.1 Ask and answer questions about key details in a text. (1-LS1-2), (1-LS3-1)	<i>Spinning Earth</i> Chapter 1, Lesson 1.2 Activity 4 (slides 14–24)					
60	CCSS ELA/Literacy	RI.1.2 Identify the main topic and retell key details of a text. (1-LS1-2)	<i>Animal and Plant Defenses</i> Chapter 3, Lesson 3.2 Activity 1 (slides 14–17)					
61	CCSS ELA/Literacy	RI.1.10 With prompting and support, read informational texts appropriately complex for grade. (1-LS1-2)	<i>Animal and Plant Defenses</i> Chapter 2, Lesson 2.1 Activity 2 (slides 10–25)					
62	CCSS ELA/Literacy	W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure. (1-PS4-2)	<i>Spinning Earth</i> Chapter 2, Lesson 2.4 Activity 3 (slides 22–32)					

63	CCSS ELA/ Literacy	W.1.7 Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions). (1-PS4-1), (1-PS4-2), (1-PS4-3), (1-PS4-4), (1-LS1-1), (1-LS3-1), (1-ESS1-1), (1-ESS1-2)	Animal and Plant Defenses Chapter 2, Lesson 2.7 Activity 1 (slides 8–27)						
64	CCSS ELA/ Literacy	W.1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (1-PS4-1), (1-PS4-2), (1-PS4-3), (1-LS3-1), (1-ESS1-1), (1-ESS1-2)	Animal and Plant Defenses Chapter 1, Lesson 1.4 Activity 1 (slides 7–19)						
65	CCSS ELA/ Literacy	SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. (1-PS4-1), (1-PS4-2), (1-PS4-3)	Animal and Plant Defenses Chapter 2, Lesson 2.4 Activity 3 (slides 28–36)						
Grade 1 CCSS Math									
66	CCSS Math	1.OA.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem. (1-ESS1-2)	Animal and Plant Defenses Chapter 4, Lesson 4.2 Activity 2 Teacher Support Note, "Instructional Suggestion, Going Further: Mathematical Thinking" linked to on slide 18						
67	CCSS Math	1.NBT.B.3 Compare two two-digit numbers based on the meanings of the tens and one digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. (1-LS1-2)	Animal and Plant Defenses Chapter 4, Lesson 4.2 Teacher Support Note, "Instructional Suggestion, Going Further: Mathematical Thinking" linked to on slide 18						
68	CCSS Math	1.NBT.C.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning uses. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. (1-LS1-2)	Spinning Earth Chapter 5, Lesson 5.2 Activity 2 Teacher Support Note, "Instructional Suggestion, Going Further: Mathematical Thinking" linked to on slide 18						
69	CCSS Math	1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. (1-LS1-2)	Light and Sound Chapter 2, Lesson 2.2 Activity 3 Teacher Support Note, "Instructional Suggestion, Going Further: Mathematical Thinking" linked to on slide 24						
70	CCSS Math	1.NBT.C.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. (1-LS1-2)	No citation provided.						
71	CCSS Math	1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. (1-PS4-4), (1-LS3-1)	Light and Sound Chapter 3, Lesson 3.5 Activity 2 Teacher Support Note, "Instructional Suggestion, Going Further: Mathematical Thinking" linked to on slide 23						
72	CCSS Math	1.MD.A.2 Express the length of an object as a whole number of length units, by layering multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. (1-PS4-4)	No citation provided.						

73	CCSS Math	1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. <i>(1-ESS1-2)</i>	<i>Light and Sound</i> Chapter 2, Lesson 2.3 Activity 3 (slides 21–31)					
74	CCSS Math	MP.2 Reason abstractly and quantitatively. <i>(1-LS3-1), (1-ESS1-2), (K-2-ETS1-1), (K-2-ETS1-3)</i>	<i>Spinning Earth</i> Chapter 2, Lesson 2.1 Activity 2 (slides 10–23)					
75	CCSS Math	MP.4 Model with mathematics. <i>(1-ESS1-2), (K-2-ETS1-1), (K-2-ETS1-3)</i>	<i>Light and Sound</i> Chapter 2, Lesson 2.5 Activity 2 (slides 17–24)					
76	CCSS Math	MP.5 Use appropriate tools strategically. <i>(1-PS4-4), (1-LS3-1), (1-ESS1-2), (K-2-ETS1-1), (K-2-ETS1-3)</i>	<i>Spinning Earth</i> Chapter 2, Lesson 2.2 Activity 2 (slides 15–23)					

Section 2: Science Content Review

PUBLISHER/PROVIDER INSTRUCTIONS:

- Publisher/provider citations for this section will refer to the **Teacher Edition (teacher-facing core material)** and/or **Student Edition/Student Workbook (student-facing core material)**. The cited Teacher Edition, Student Edition, and/or Student Workbook should correspond with titles and ISBNs entered on the Form F cover page, whether in print, online, or both. The review set submitted to the summer review institute should also correspond with what is cited on the Form F. If the review set is an online platform only, then that is what should be cited on the Form F and submitted for review by the review teams.
- For this section, the publisher/provider will enter one citation per criterion (Column C). Each citation should direct the reviewer to a specific location in the materials that best meets the criterion. The citations should be concise and should allow the reviewer to easily determine that all components of the criterion have been met. **Each citation should cover no more than 3 pages within the materials.**
 - **Column C:** Enter one citation in Column C from either the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material)**. Each citation should direct the reviewer to a specific location in the materials that best meets the criterion.
- The material will be scored for alignment with each criterion as “Meets expectations”, “Partially meets expectations”, or “Does not meet expectations” based on the citations provided.
 - **NOTE: You may not use a citation more than once across ALL sections of the rubric.**

Criteria #	Grades K-12 Science Content Criteria	Publisher/Provider Citation	Score	If Scored D: Reviewer's Evidence for Publisher Citation	Reviewer Citation	Score	Required: Reviewer's Evidence	Comments, other citations, notes
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FOCUS AREA 1: PHENOMENA-/PROBLEM-BASED AND THREE-DIMENSIONAL APPROACH

Instructional materials are centered around high quality phenomena and/or problems and require a three dimensional approach to make sense of the phenomena or to solve the problems.

1	Materials clearly integrate and describe the three-dimensional NM STEM Ready! Standards via appropriate grade-band, interdisciplinary progressions that center around the phenomena, utilizing aligned SEPs, CCCs, DCIs and the common core math and ELA standards' connections.	<i>Spinning Earth</i> Unit Overview (pg. 2–4 in Printable Teacher Guide) Planning for the Unit, Standards at a Glance (pg. 30 in Printable Teacher Guide)						
2	Materials consistently support meaningful student sensemaking with the three dimensions, including discourse, that is appropriate to grade band progressions, instruction and assessment.	<i>Animal and Plant Defenses</i> Planning for the Unit, Unit Map (pg. 4–5 in Printable Teacher Guide)						
3	Natural and designed phenomena and/or problems that are meaningful and apparent to students drive coherent lessons and activities in all three dimensions.	Light and Sound Printable Resources, Coherence Flowchart						

FOCUS AREA 2: THREE-DIMENSIONAL ASSESSMENT

Assessments provide tools, guidance and support for teachers to collect, interpret and act on data about student progress toward the learning goals of the 3 dimensional standards.

4	Materials engage students in meaningful tasks as well as multiple assessment types and opportunities, across all dimensions, in order to make sense of phenomena and/or design solutions to problems.	<i>Light and Sound</i> Teacher References, Assessment System , Entry-Level and Summative Assessments & Monitoring Progress (pg. 584–586 in Printable Teacher Guide)						
5	Materials include opportunities for students to obtain feedback from teachers and peers as well as opportunities for student self-reflection.	<i>Animal and Plant Defenses</i> Chapter 4, Lesson 4.2 Slide 20 Chapter 1, Lesson 1.5 Activity 3 (slides 32–38)						

FOCUS AREA 3: TEACHER SUPPORTS

Materials include opportunities for teachers to effectively plan and utilize materials.

6	Materials provide a comprehensive list of supplies and teacher guidance needed to support instructional activities in a safe manner.	<i>Light and Sound</i> Chapter 2, Lesson 2.3 Lesson Brief, Materials & Preparation (pg. 4–6 in Printable Lesson Guide)						
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7	Materials provide teacher guidance for the use of embedded and meaningful technology to support and enhance student learning, when applicable.	<i>Animal and Plant Defenses</i> Chapter 1, Lesson 1.1 Help, Learn More						
8	Materials and assessments include teacher guidance for students at, approaching, or exceeding grade level expectations.	<i>Light and Sound</i> Chapter 2, Lesson 2.3 Differentiation (pg. 9–11 in Printable Lesson Guide) Slide 19, On-the-Fly Assessment 6 Teacher Note						
9	Materials provide teacher guidance for interpreting student evidence of learning, monitoring student progress and providing feedback to guide student learning and to modify instruction.	<i>Light and Sound</i> Chapter 3, Lesson 3.6 Slide 9, On-the-Fly Assessment 9 Teacher Note						
FOCUS AREA 4: STUDENT CENTERED INSTRUCTION								
Materials are designed for each student's regular and active participation in science content.								
10	Materials provide opportunities to engage students' curiosity and participation in a way that pulls from their prior knowledge and connects their learning to relevant phenomena and problems.	<i>Spinning Earth</i> Chapter 1, Lesson 1.1 "Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds" (found in lesson Digital Resources)						
11	The flow of lessons from one unit to the next is coherent, meaningful, direct, and apparent to students.	<i>Needs of Plants and Animals</i> Chapter 3, Lesson 3.1 Activity 1 (slides 2–6)						
FOCUS AREA 5: EQUITY								
Materials are designed for all learners.								
12	Materials provide extensions and/or opportunities for all students to engage in learning grade-level/band science and engineering in greater depth.	<i>Animal and Plant Defenses</i> Chapter 4, Lesson 4.2 Differentiation (pg. 6–8 in Printable Lesson Guide)						
13	Materials and assessments are designed in an accessible manner and include multiple ways for all students to build and reflect on science knowledge; multiple ways for all students to access content (Universal Design for Learning); and multiple opportunities for student self-reflection.	<i>Amplify Science</i> Program Guide, Access and equity, Universal Design for Learning						

Section 2: All Content Review

PUBLISHER/PROVIDER INSTRUCTIONS:

- The All Content tab will be completed solely by the reviewers. They will score each criterion and provide evidence for their score from the material based on their overall review of the material. You will not provide any citations for this tab.
- The material will be scored for alignment with each criterion as “Meets expectations”, “Partially meets expectations”, or “Does not meet expectations”.

Criteria #	All Content Criteria Review	Score	Required: Reviewer's Evidence from Material	Comments, citations, notes
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FOCUS AREA 1: COHERENCE
Instructional materials are coherent and consistent with the New Mexico Content Standards that all students should study in order to be college- and career-ready.

1	Instructional materials address the full content contained in the standards for all students by grade level.			
2	Instructional materials support students to show mastery of each standard.			
3	Instructional materials require students to engage at a level of maturity appropriate to the grade level under review.			
4	Instructional materials are coherent, making meaningful connections for students by linking the standards within a lesson and unit.			

FOCUS AREA 2: WELL-DESIGNED LESSONS
Instructional materials take into account effective lesson structure and pacing.

5	The Teacher Edition presents learning progressions to provide an overview of the scope and sequence of skills and concepts. The design of the assignments shows a purposeful sequencing of teaching and learning expectations.			
6	Within each lesson of the instructional materials, there are clear, measurable, standards-aligned content objectives.			
7	Within each lesson of the instructional materials, there are clear, measurable language objectives tied directly to the content objectives.			
8	Instructional materials provide focused resources to support students' acquisition of both general academic vocabulary and content-specific vocabulary.			
9	The visual design of the instructional materials (whether in print or digital) maintains a consistent layout that supports student engagement with the subject.			

10	Instructional materials incorporate features that aid students and teachers in making meaning of the text.			
11	Instructional materials provide students with ongoing review and practice for the purpose of retaining previously acquired knowledge.			
FOCUS AREA 3: RESOURCES FOR PLANNING Instructional materials provide teacher resources to support planning, learning, and understanding of the New Mexico Content Standards.				
12	Instructional materials provide a list of lessons in the Teacher Edition (in print or clearly distinguished/ accessible as a teacher's edition in digital materials), cross-referencing the standards addressed and providing an estimated instructional time for each lesson, chapter, and unit.			
13	Instructional materials support teachers with instructional strategies to help guide students' academic development.			
14	Instructional materials include a teacher edition/ teacher-facing material with useful annotations and suggestions on how to present the content in the student edition/student-facing material and in the supporting material.			
15	Instructional materials integrate opportunities for digital learning, including interactive digital components.			
FOCUS AREA 4: ASSESSMENT Instructional materials offer teachers a variety of assessment resources and tools to collect ongoing data about student progress related to the standards.				
16	Instructional materials provide a variety of assessments that measure student progress in all strands of the standards for the content under review. <i>(Adopted New Mexico Content Standards for 2024: NM STEM Ready Science Standards)</i>			
17	Instructional materials provide multiple formative and summative assessments, clearly defining which standards are being assessed through content and language objectives.			
18	Instructional materials provide scoring guides for assessments that are aligned with the standards they address, and that offer teachers guidance in interpreting student performance and suggestions for further instruction, differentiation, remediation and/or acceleration.			

19	Instructional materials provide appropriate assessment alternatives for English Learners, Culturally and Linguistically Diverse students, advanced students, and special needs students.			
20	Instructional materials include opportunities to assess student understanding and knowledge of the standards using technology.			
FOCUS AREA 5: EXTENSIVE SUPPORT				
Instructional materials give all students extensive opportunities and support to explore key concepts.				
21	Instructional materials can be customized or adapted to meet the needs of different student populations.			
22	Instructional materials provide differentiated strategies and/or activities to meet the needs of students working below proficiency and those of advanced learners.			
23	Instructional materials provide appropriate linguistic support for English Learners and Culturally and Linguistically Diverse students, and accommodations and modifications for other special populations that will support their regular and active participation in learning content.			
24	Instructional materials provide strategies and resources for teachers to inform and engage parents, family members, and caregivers of all learners about the program and provide suggestions for how they can help support student progress and achievement.			
25	Instructional materials include opportunities for all students that encourage and support critical and creative thinking, inquiry, and complex problem-solving skills.			
FOCUS AREA 6: CULTURAL AND LINGUISTIC PERSPECTIVES				
Instructional materials represent a variety of cultural and linguistic perspectives.				
26	Instructional materials inform culturally and linguistically responsive pedagogy by affirming students' backgrounds in the materials themselves and in the student discussions.			
27	Instructional materials provide a collection of images, stories, and information, representing a broad range of demographic groups, and do not make generalizations or reinforce stereotypes.			

28	Instructional materials provide context, illustrations, and activities for students to make interdisciplinary connections and/or connections to real-life experiences and diverse cultural and linguistic backgrounds.			
FOCUS AREA 7: INCLUSION OF CULTURALLY AND LINGUISTICALLY RESPONSIVE LENS Instructional materials highlight diversity in culture and language through multiple perspectives.				
29	Instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language.			
30	Instructional materials include tools and resources that demonstrate multiple perspectives in a specific concept.			
31	Instructional materials engage students in critical reflection about their own lives and societies, including cultures past and present in New Mexico.			
32	Instructional materials address multiple ethnic descriptions, interpretations, or perspectives of events and experiences.			