NEW MEXICO
Public Education Department

# F.3 Science - Grade 3

| PUBLISHER/PROVIDER MATERIAL INFORMATION (TO BE COMPLETED BY PUBLISHER/PROVIDER) | | | |
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| Publisher/Provider Name/Imprint: | | Grade(s): | |
| Title of Student Edition: | | Student Edition ISBN: | |
| Title of Teacher Edition: | | Teacher Edition ISBN: | |
| Title of SE Workbook: | | SE Workbook ISBN: | |

| PUBLISHER/PROVIDER CITATION VIDEO: Reviewer must view video before starting the review of this set of materials. | | | |
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| Citation Video Link: | | | |
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| SCORING (TO BE COMPLETED BY REVIEWER AND FACILITATOR) | | | |
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| Reviewer Number: | | Date: | |

**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.**

| **Abbreviations for the Form F Standards Review Tab:**<br>• **PE:** Performance Expectation<br>• **DCI:** Disciplinary Core Idea<br>• **SEP:** Science and Engineering Practices<br>• **CCC:** Crosscutting Concepts<br>• **CONN:** Connections<br>• **NM:** NM STEM Ready Standard<br>• **CCSS:** Common Core State Standards for ELA/Literacy in Science and Common Core State Standards for Math in Science as identified in the NGSS | **Reviewer directions for Science Standards Review:** | **Columns D-G:** The publisher/provider will provide a citation from the **Teacher Edition (teacher-facing core material)** (print and/or digital) for each DCI, SEP, CCC, CONN, and NM standard in column D. Review the cited material and score the material by determining the degree to which it meets the standard:<br>o M = Meets the standard<br>o P = Partially meets the standard<br>o D = Does not meet the standard<br>**Start by scoring the DCI(s) for the PE. If all DCIs within the PE score a D (columns E *AND* I), score all other components within the PE with a D and move on to the next PE.**<br>Evidence for the publisher citations is required *only* if you score the materialswith a D. For your evidence for each standard that scores a D, choose one of the options from the dropdown menu in Column G. If the reason for scoring the materials with a D is not one of the dropdown options, enter your own evidence statement in the cell in Column G.<br>***o Any cells grayed out do not require a citation or evidence. The score cells in those rows will automatically populate if formulated to do so.***<br>***o Each cell in the Score column (column E) will turn purple as you score the materials.*** | **Columns H-K:** Using the **Student Edition, Student Workbook, or other student-facing materials**, provide a citation for each DCI, SEP, CCC, CONN, and NM standard in Column H from the student materials that best meets the standard and addresses all components of the standard. Review the cited material, score the material by determining the degree to which it meets the standard, and provide evidence to support your determination:<br>o M = Meets the standard<br>o P = Partially meets the standard<br>o D = Does not meet the standard<br>**Start by scoring the DCI(s) for the PE. If all DCIs within the PE score a D (columns E AND I), score all other components within the PE with a D and move on to the next PE.**<br>***o Any cells grayed out do not require a citation or evidence. The score cells in those rows will automatically populate if formulated to do so.***<br>***o Each cell in the Reviewer Citation column, Score column, and Reviewer Evidence column (columns H, I, and K) will turn purple as you score the materials.*** | |
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| Criteria # | Standard Identifier | F.3 Grade 3 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 |
|---|---|---|---|---|---|---|---|---|---|
| **Motion and Stability: Forces and Interactions** | | | | | | | | | |
| 1 | PE | **3-PS2-1. Students who demonstrate understanding can: Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.** | | | | | | | |
| 2 | DCI | **PS2.A: Forces and Motion**<br>• Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. (Boundary: Qualitative and conceptual, but not quantitative addition of forces are used at this level.)<br>(3-PS2-1) | | | | | | | |
| 3 | DCI | **PS2.B: Types of Interactions**<br>• Objects in contact exert forces on each other. (3-PS2-1) | | | | | | | |
| 4 | SEP | **Planning and Carrying Out Investigations**<br>*Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.*<br>• Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. (3-PS2-1) | | | | | | | |
| 5 | CONN | **Scientific Investigations Use a Variety of Methods**<br>• Science investigations use a variety of methods, tools, and techniques. (3-PS2-1) | | | | | | | |
| 6 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified. (3-PS2-1) | | | | | | | |
| 7 | PE | **3-PS2-2. Students who demonstrate understanding can: Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.** | | | | | | | |
| 8 | DCI | **PS2.A: Forces and Motion**<br>• The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. (Boundary: Technical terms, such as magnitude, velocity, momentum, and vector quantity, are not introduced at this level, but the concept that some quantities need both size and direction to be described is developed.) (3-PS2-2) | | | | | | | |
| 9 | SEP | **Planning and Carrying Out Investigations**<br>*Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.*<br>• Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. (3-PS2-2) | | | | | | | |
| 10 | CONN | **Science Knowledge is Based on Empirical Evidence**<br>• Science findings are based on recognizing patterns. (3-PS2-2) | | | | | | | |
| 11 | CCC | **Patterns**<br>• Patterns of change can be used to make predictions. (3-PS2-2) | | | | | | | |
| 12 | PE | **3-PS2-3. Students who demonstrate understanding can: Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.** | | | | | | | |
| 13 | DCI | **PS2.B: Types of Interactions**<br>• Electric and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. (3-PS2-3) | | | | | | | |
| 14 | SEP | **Asking Questions and Defining Problems**<br>*Asking questions and defining problems in grades 3–5 builds on grades K–2 experiences and progresses to specifying qualitative relationships.*<br>• Ask questions that can be investigated based on patterns such as cause and effect relationships. (3-PS2-3) | | | | | | | |
| 15 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified, tested, and used to explain change. (3-PS2-3) | | | | | | | |
| 16 | PE | **3-PS2-4. Students who demonstrate understanding can: Define a simple design problem that can be solved by applying scientific ideas about magnets.** | | | | | | | |

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| 17 | DCI | **PS2.B: Types of Interactions**<br>• Electric and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. (3-PS2-4) | | | | | | | |
| 18 | SEP | **Asking Questions and Defining Problems**<br>*Asking questions and defining problems in grades 3–5 builds on grades K–2 experiences and progresses to specifying qualitative relationships.*<br>• Define a simple problem that can be solved through the development of a new or improved object or tool. (3-PS2-4) | | | | | | | |
| 19 | CONN | **Interdependence of Science, Engineering, and Technology**<br>• Scientific discoveries about the natural world can often lead to new and improved technologies, which are developed through the engineering design process. (3-PS2-4) | | | | | | | |
| **From Molecules to Organisms: Structures and Processes** | | | | | | | | | |
| 20 | PE | **3-LS1-1. Students who demonstrate understanding can: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.** | | | | | | | |
| 21 | DCI | **LS1.B: Growth and Development of Organisms**<br>• Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1) | | | | | | | |
| 22 | SEP | **Developing and Using Models**<br>*Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.*<br>• Develop models to describe phenomena. (3-LS1-1) | | | | | | | |
| 23 | CONN | **Scientific Knowledge is Based on Empirical Evidence**<br>• Science findings are based on recognizing patterns. (3-LS1-1) | | | | | | | |
| 24 | CCC | **Patterns**<br>• Patterns of change can be used to make predictions. (3-LS1-1) | | | | | | | |
| **Ecosystems: Interactions, Energy, and Dynamics** | | | | | | | | | |
| 25 | PE | **3-LS2-1. Students who demonstrate understanding can: Construct an argument that some animals form groups that help members survive.** | | | | | | | |
| 26 | DCI | **LS2.D: Social Interactions and Group Behavior**<br>• Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size. (Note: Moved from K–2) (3-LS2-1) | | | | | | | |
| 27 | SEP | **Engaging in Argument from Evidence**<br>Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed worlds.<br>• Construct an argument with evidence, data, and/or a model. (3-LS2-1) | | | | | | | |
| 28 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1) | | | | | | | |
| **Heredity: Inheritance and Variation of Traits** | | | | | | | | | |
| 29 | PE | **3-LS3-1. Students who demonstrate understanding can: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.** | | | | | | | |
| 30 | DCI | **LS3.A: Inheritance of Traits**<br>• Many characteristics of organisms are inherited from their parents. (3-LS3-1) | | | | | | | |
| 31 | DCI | **LS3.B: Variation of Traits**<br>• Different organisms vary in how they look and function because they have different inherited information. (3-LS3-1) | | | | | | | |
| 32 | SEP | **Analyzing and Interpreting Data**<br>*Analyzing data in 3–5 builds on K–2 experiences and progresses to introducing quantitative approaches to collecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital tools should be used.*<br>• Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1) | | | | | | | |
| 33 | CCC | **Patterns**<br>• Similarities and differences in patterns can be used to sort and classify natural phenomena. (3-LS3-1) | | | | | | | |
| 34 | PE | **3-LS3-2. Students who demonstrate understanding can: Use evidence to support the explanation that traits can be influenced by the environment.** | | | | | | | |
| 35 | DCI | **LS3.A: Inheritance of Traits**<br>• Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment. (3- LS3-2) | | | | | | | |
| 36 | DCI | **LS3.B: Variation of Traits**<br>• The environment also affects the traits that an organism develops. (3-LS3-2) | | | | | | | |
| 37 | SEP | **Constructing Explanations and Designing Solutions**<br>*Constructing explanations and designing solutions in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems.*<br>• Use evidence (e.g., observations, patterns) to support an explanation. (3-LS3-2) | | | | | | | |
| 38 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified and used to explain change. (3-LS3-2) | | | | | | | |
| **Biological Evolution: Unity and Diversity** | | | | | | | | | |
| 39 | PE | **3-LS4-1. Students who demonstrate understanding can: Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.** | | | | | | | |
| 40 | DCI | **LS4.A: Evidence of Common Ancestry and Diversity**<br>• Some kinds of plants and animals that once lived on Earth are no longer found anywhere. (Note: Moved from K–2) (3-LS4-1) | | | | | | | |
| 41 | DCI | **LS4.A: Evidence of Common Ancestry and Diversity**<br>• Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. (3-LS4-1) | | | | | | | |

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| 42 | SEP | **Analyzing and Interpreting Data**<br>*Analyzing data in 3–5 builds on K–2 experiences and progresses to introducing quantitative approaches to collecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital tools should be used.*<br>• Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS4-1) | | | | | | | | |
| 43 | CCC | **Scale, Proportion, and Quantity**<br>• Observable phenomena exist from very short to very long time periods. (3-LS4-1) | | | | | | | | |
| 44 | CONN | **Scientific Knowledge Assumes an Order and Consistency in Natural Systems**<br>• Science assumes consistent patterns in natural systems. (3-LS4-1) | | | | | | | | |
| 45 | PE | **3-LS4-2. Students who demonstrate understanding can: Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.** | | | | | | | | |
| 46 | DCI | **LS4.B: Natural Selection**<br>• Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. (3-LS4-2) | | | | | | | | |
| 47 | SEP | **Constructing Explanations and Designing Solutions**<br>*Constructing explanations and designing solutions in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems.*<br>• Use evidence (e.g., observations, patterns) to construct an explanation. (3-LS4-2) | | | | | | | | |
| 48 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified and used to explain change. (3-LS4-2) | | | | | | | | |
| 49 | PE | **3-LS4-3. Students who demonstrate understanding can: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.** | | | | | | | | |
| 50 | DCI | **LS4.C: Adaptation**<br>• For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3) | | | | | | | | |
| 51 | SEP | **Engaging in Argument from Evidence**<br>Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed worlds.<br>• Construct an argument with evidence. (3-LS4-3) | | | | | | | | |
| 52 | CCC | **Cause and Effect**<br>• Cause and effect relationships are routinely identified and used to explain change. (3-LS4-3) | | | | | | | | |
| 53 | PE | **3-LS4-4. Students who demonstrate understanding can: Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.** | | | | | | | | |
| 54 | DCI | **LS2.C: Ecosystem Dynamics, Functioning, and Resilience**<br>• When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary to 3-LS4-4) | | | | | | | | |
| 55 | DCI | **LS4.D: Biodiversity and Humans**<br>• Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4) | | | | | | | | |
| 56 | SEP | **Engaging in Argument from Evidence**<br>*Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed worlds.*<br>• Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-LS4-4) | | | | | | | | |
| 57 | CCC | **Systems and System Models**<br>• A system can be described in terms of its components and their interactions. (3-LS4-4) | | | | | | | | |
| 58 | CONN | **Interdependence of Science, Engineering, and Technology**<br>• Knowledge of relevant scientific concepts and research findings is important in engineering. (3-LS4-4) | | | | | | | | |
| **Earth's Systems** | | | | | | | | | | |
| 59 | PE | **3-ESS2-1. Students who demonstrate understanding can: Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.** | | | | | | | | |
| 60 | DCI | **ESS2.D: Weather and Climate**<br>• Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. (3-ESS2-1) | | | | | | | | |
| 61 | SEP | **Analyzing and Interpreting Data**<br>*Analyzing data in 3–5 builds on K–2 experiences and progresses to introducing quantitative approaches to collecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital tools should be used.*<br>• Represent data in tables and various graphical displays (bar graphs and pictographs) to reveal patterns that indicate relationships. (3-ESS2-1) | | | | | | | | |
| 62 | CCC | **Patterns**<br>• Patterns of change can be used to make predictions. (3-ESS2-1) | | | | | | | | |
| 63 | PE | **3-ESS2-2. Students who demonstrate understanding can: Obtain and combine information to describe climates in different regions of the world.** | | | | | | | | |
| 64 | DCI | **ESS2.D: Weather and Climate**<br>• Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2) | | | | | | | | |
| 65 | SEP | **Obtaining, Evaluating, and Communicating Information**<br>*Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.*<br>• Obtain and combine information from books and other reliable media to explain phenomena. (3-ESS2-2) | | | | | | | | |
| 66 | CCC | **Patterns**<br>• Patterns of change can be used to make predictions. (3-ESS2-2) | | | | | | | | |

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| **Earth and Human Activity** | | | | | | | | | |
| **67** | **PE** | **3-ESS3-1. Students who demonstrate understanding can: Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.** | | | | | | | |
| **68** | **DCI** | **ESS3.B: Natural Hazards**<br>• A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-1) | | | | | | | |
| **69** | **SEP** | **Engaging in Argument from Evidence**<br>*Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).*<br>• Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-ESS3-1) | | | | | | | |
| **70** | **CCC** | **Cause and Effect**<br>• Cause and effect relationships are routinely identified, tested, and used to explain change. (3-ESS3-1) | | | | | | | |
| **71** | **CONN** | **Influence of Engineering, Technology, and Science on Society and the Natural World**<br>• Engineers improve existing technologies or develop new ones to increase their benefits (e.g., better artificial limbs), decrease known risks (e.g., seatbelts in cars), and meet societal demands (e.g., cell phones). (3-ESS3-1) | | | | | | | |
| **72** | **CONN** | **Science is a Human Endeavor**<br>• Science affects everyday life. (3-ESS3-1) | | | | | | | |
| **Engineering Design** | | | | | | | | | |
| **73** | **PE** | **3-5-ETS1-1. Students who demonstrate understanding can: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.** | | | | | | | |
| **74** | **DCI** | **ETS1.A: Defining and Delimiting Engineering Problems**<br>• Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1) | | | | | | | |
| **75** | **SEP** | **Asking Questions and Defining Problems**<br>*Asking questions and defining problems in 3–5 builds on grades K–2 experiences and progresses to specifying qualitative relationships.*<br>• Define a simple design problem that can be solved through the development of an object, tool, process, or system and includes several criteria for success and constraints on materials, time, or cost. (3-5-ETS1-1) | | | | | | | |
| **76** | **CCC** | **Influence of Science, Engineering, and Technology on Society and the Natural World**<br>• People's needs and wants change over time, as do their demands for new and improved technologies. (3-5-ETS1-1) | | | | | | | |
| **77** | **PE** | **3-5-ETS1-2. Students who demonstrate understanding can: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.** | | | | | | | |
| **78** | **DCI** | **ETS1.B: Developing Possible Solutions**<br>• Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) | | | | | | | |
| **79** | **DCI** | **ETS1.B: Developing Possible Solutions**<br>• At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and share ideas can lead to improved designs. (3-5-ETS1-2) | | | | | | | |
| **80** | **SEP** | **Constructing Explanations and Designing Solutions**<br>*Constructing explanations and designing solutions in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems.*<br>• Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design problem. (3-5-ETS1-2) | | | | | | | |
| **81** | **CCC** | **Influence of Science, Engineering, and Technology on Society and the Natural World**<br>• Engineers improve existing technologies or develop new ones to increase their benefits, decrease known risks, and meet societal demands. (3-5-ETS1-2) | | | | | | | |
| **82** | **PE** | **3-5-ETS1-3. Students who demonstrate understanding can: Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.** | | | | | | | |
| **83** | **DCI** | **ETS1.B: Developing Possible Solutions**<br>• Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3) | | | | | | | |
| **84** | **DCI** | **ETS1.C: Optimizing the Design Solution**<br>• Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3-5-ETS1-3) | | | | | | | |
| **85** | **SEP** | **Planning and Carrying Out Investigations**<br>*Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.*<br>• Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. (3-5-ETS1-3) | | | | | | | |

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| **CCSS for ELA/Literacy and Math in Grade 3 NGSS**<br>**• 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 3 CCSS ELA/Literacy** | | |
| **86** | **CCSS ELA/ Literacy** | **RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.<br>*(3-PS2-1), (3-PS2-3), (3-LS2-1), (3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4), (3-ESS2-2)* |
| **87** | **CCSS ELA/ Literacy** | **RI.3.2** Determine the main idea of a text; recount the key details and explain how they support the main idea.<br>*(3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)* |

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| **88** | **CCSS ELA/ Literacy** | **RI.3.3** Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.<br>*(3-PS2-3), (3-LS2-1), (3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)* | | | | | | | |
| **89** | **CCSS ELA/ Literacy** | **RI.3.7** Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).<br>*(3-LS1-1)* | | | | | | | |
| **90** | **CCSS ELA/ Literacy** | **RI.3.8** Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).<br>*(3-PS2-3)* | | | | | | | |
| **91** | **CCSS ELA/ Literacy** | **RI.3.9** Compare and contrast the most important points and key details presented in two texts on the same topic.<br>*(3-ESS2-2)* | | | | | | | |
| **92** | **CCSS ELA/ Literacy** | **W.3.1** Write opinion pieces on topics or texts, supporting a point of view with reasons.<br>*(3-LS2-1), (3-LS4-1), (3-LS4-3), 3-LS4-4), (3-ESS3-1)* | | | | | | | |
| **93** | **CCSS ELA/ Literacy** | **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.<br>*(3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)* | | | | | | | |
| **94** | **CCSS ELA/ Literacy** | **W.3.7** Conduct short research projects that build knowledge about a topic.<br>*(3-PS2-1), (3-PS2-2), (3-ESS3-1)* | | | | | | | |
| **95** | **CCSS ELA/ Literacy** | **W.3.8** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.<br>*(3-PS2-1), (3-PS2-2), (3-LS4-1)* | | | | | | | |
| **96** | **CCSS ELA/ Literacy** | **SL.3.3** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.<br>*(3-PS2-3)* | | | | | | | |
| **97** | **CCSS ELA/ Literacy** | **SL.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.<br>*(3-LS3-1), (3-LS3-2), (3-LS4-2), (3-LS4-3), (3-LS4-4)* | | | | | | | |
| **98** | **CCSS ELA/ Literacy** | **SL.3.5** Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.<br>*(3-LS1-1)* | | | | | | | |
| **Grade 3 CCSS Math** | | | | | | | | | |
| **99** | **CCSS Math** | **MP.2** Reason abstractly and quantitatively.<br>*(3-PS2-1), (3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4), (3-ESS2-1), (3-ESS2-2), (3-ESS3-1), (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)* | | | | | | | |
| **100** | **CCSS Math** | **MP.4** Model with mathematics.<br>*(3-LS1-1), (3-LS2-1), (3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4), (3-ESS2-1), (3-ESS2-2), (3-ESS3-1), (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)* | | | | | | | |
| **101** | **CCSS Math** | **MP.5** Use appropriate tools strategically.<br>*(3-PS2-1), (3-LS4-1), (3-ESS2-1), (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)* | | | | | | | |
| **102** | **CCSS Math** | **3.NBT** Number and Operations in Base Ten<br>*(3-LS2-1), (3-LS1-1)* | | | | | | | |
| **103** | **CCSS Math** | **3.NF** Number and Operations—Fractions<br>*(3-LS1-1)* | | | | | | | |
| **104** | **CCSS Math** | **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.<br>*(3-PS2-1), (3-ESS2-1)* | | | | | | | |
| **105** | **CCSS Math** | **3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.<br>*(3-LS4-2), (3-LS4-3), (3-ESS2-1)* | | | | | | | |
| **106** | **CCSS Math** | **3.MD.B.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.<br>*(3-LS3-1), (3-LS3-2), (3-LS4-1)* | | | | | | | |

**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. 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 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.**

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| | **Reviewer directions for Science Content Review:** | **Columns C-F:** The publisher/provider will provide a citation from the **Teacher Edition (teacher-facing core material) OR Student Edition/Student Workbook (student-facing core material) (print and/or digital)** for each criterion. Review the cited material and score the material by determining the degree to which it meets the criterion:<br>o M = Meets the criterion<br>o P = Partially meets the criterion<br>o D = Does not meet the criterion<br>Evidence for the publisher citations is required *only* if you score the materials with a D. For your evidence for each criterion that scores a D, choose one of the options from the dropdown menu in Column F. If the reason for scoring the materials with a D is not one of the dropdown options, enter your own evidence statement in the cell in Column F.<br>***o Each cell in the Score column (column D) will turn purple as you score the materials.*** | | | **Columns G-J:** Using either the **Teacher Edition (teacher-facing core material) OR Student Edition/Student Workbook (student-facing core material)** (print and/or digital), provide a citation for each criterion that best meets the criterion and addresses all components of the criterion. Review the cited material, score the material by determining the degree to which it meets the criterion, and **provide evidence from the material to support your determination:**<br>o M = Meets the criterion<br>o P = Partially meets the criterion<br>o D = Does not meet the criterion<br>***o Each cell in the Reviewer Citation column, Score column, and Reviewer Evidence column (columns G, H, and J) will turn purple as you score the materials.*** | | | |
| **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 |
| **FOCUS AREA 1: PHENOMENA-/PROBLEM-BASED AND THREE-DIMENSIONAL APPROACH<br>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. | | | | | | | |
| **2** | Materials consistently support meaningful student sensemaking with the three dimensions, including discourse, that is appropriate to grade band progressions, instruction and assessment. | | | | | | | |
| **3** | Natural and designed phenomena and/or problems that are meaningful and apparent to students drive coherent lessons and activities in all three dimensions. | | | | | | | |
| **FOCUS AREA 2: THREE-DIMENSIONAL ASSESSMENT<br>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. | | | | | | | |
| **5** | Materials include opportunities for students to obtain feedback from teachers and peers as well as opportunities for student self-reflection. | | | | | | | |
| **FOCUS AREA 3: TEACHER SUPPORTS<br>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. | | | | | | | |
| **7** | Materials provide teacher guidance for the use of embedded and meaningful technology to support and enhance student learning, when applicable. | | | | | | | |
| **8** | Materials and assessments include teacher guidance for students at, approaching, or exceeding grade level expectations. | | | | | | | |
| **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. | | | | | | | |
| **FOCUS AREA 4: STUDENT CENTERED INSTRUCTION<br>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. | | | | | | | |
| **11** | The flow of lessons from one unit to the next is coherent, meaningful, direct, and apparent to students. | | | | | | | |
| **FOCUS AREA 5: EQUITY<br>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. | | | | | | | |
| **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. | | | | | | | |

| Section 2: All Content Review | | | | |
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| **PUBLISHER/PROVIDER INSTRUCTIONS**:<br>• 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.<br>• The material will be scored for alignment with each criterion as "Meets expectations", "Partially meets expectations", or "Does not meet expectations". | | | | |
| | **Reviewer directions for All Content Review:** | **Columns C-F: The criteria presented on this tab will be scored and evidence provided based on your overall review of the materials.** Review the material, score the material by determining the degree to which it meets each criterion, and **provide evidence from the material to support your determination:**<br>o M = Meets the criterion<br>o P = Partially meets the criterion<br>o D = Does not meet the criterion<br>Your evidence should speak to where in the materials you have found the evidence as well as what is in the materials that supports the score given.<br>***o Each cell in the Score column and the Reviewer's Evidence column (columns C and E) will turn purple as you score the materials.*** | | |
| **Criteria #** | **All Content Criteria Review** | Score | Required: Reviewer's Evidence from Material | Comments, citations, notes |
| **FOCUS AREA 1: COHERENCE**<br>**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**<br>**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**<br>**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. | | | |

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| **15** | Instructional materials integrate opportunities for digital learning, including interactive digital components. | | | |
| **FOCUS AREA 4: ASSESSMENT**<br>**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.<br>*(Adopted New Mexico Content Standards for 2024: NM STEM Ready Science Standards)* | | | |
| **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**<br>**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**<br>**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**<br>**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. | | | |

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| **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. | | | |