The performance expectations above were developed using the following elements from the NRC document A Framework for K-12 Science Education.
### New Evidence

- Science findings are frequently revised and/or reinterpreted based on new evidence. (MS-ESS2-3)

### Articulation of DCIs across grade-bands:

- 5.PS2.A (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-4), (MS-ESS2-5), (MS-ESS2-6); MS.PS2.B (MS-ESS2-4); MS.PS3.A (MS-ESS2-4), (MS-ESS2-5), (MS-ESS2-6); MS.PS3.B (MS-ESS2-1), (MS-ESS2-5), (MS-ESS2-6); MS.PS3.D (MS-ESS2-4); MS.PS4.B (MS-ESS2-6); MS.LS2.C (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-5), (MS-ESS2-6); MS.ESS3.C (MS-ESS2-1)

### Connections to other DCIs in this grade-band:

- MS.PS1.A (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-5), (MS-ESS2-6); MS.PS1.B (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-5), (MS-ESS2-6); MS.PS2.A (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-5), (MS-ESS2-6); MS.PS2.B (MS-ESS2-4), (MS-ESS2-5), (MS-ESS2-6); MS.PS3.A (MS-ESS2-4), (MS-ESS2-5), (MS-ESS2-6); MS.PS3.B (MS-ESS2-1), (MS-ESS2-5), (MS-ESS2-6); MS.PS3.D (MS-ESS2-4); MS.PS4.B (MS-ESS2-6); MS.LS2.C (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-5), (MS-ESS2-6); MS.ESS3.C (MS-ESS2-1)

### ELA/Literacy

#### RST.6-8.1
Cite specific textual evidence to support analysis of science and technical texts. (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-5)

#### RST.6-8.7
Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). (MS-ESS2-3)

#### RST.6-8.9
Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic. (MS-ESS2-3), (MS-ESS2-5)

#### WHST.6-8.2
Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. (MS-ESS2-2)

#### WHST.6-8.8
Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. (MS-ESS2-5)

#### SL.8.5
Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. (MS-ESS2-1), (MS-ESS2-2), (MS-ESS2-3)

### Mathematics

#### MP.2
Reason abstractly and quantitatively. (MS-ESS2-2), (MS-ESS2-3), (MS-ESS2-5)

#### 6.NS.C.5
Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. (MS-ESS2-5)

#### 6.EE.B.6
Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. (MS-ESS2-2), (MS-ESS2-3)

#### 7.EE.B.4
Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. (MS-ESS2-2), (MS-ESS2-3)

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*The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea. The section entitled “Disciplinary Core Ideas” is reproduced verbatim from A Framework for K-12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas. Integrated and reprinted with permission from the National Academy of Sciences.*