

Approved Facility Schools
Appendix 1
Science Connections to Common Core State Standards
Grade 9-12 Science

EARTH AND SPACE SCIENCE

ELA/Literacy:

- **RST.11-12.1** Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-5) (HS-ESS1-6) (HS-ESS2-3) (HS-ESS3-1) (HS-ESS3-2) (HS-ESS3-4) (HS-ESS3-5)
- **RST.11-12.2** Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. (HS-ESS2-2) (HS-ESS3-5)
- **RST.11-12.7** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. (HS-ESS3-5)
- **RST.11-12.8** Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information. (HS-ESS1-5) (HS-ESS1-6) (HS-ESS3-2) (HS-ESS3-4)
- **WHST.9-12.1** Write arguments focused on discipline-specific content. (HS-ESS1-6) (HS-ESS2-7)
- **WHST.9-12.2** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. (HS-ESS1-2) (HS-ESS1-3) (HS-ESS1-5) (HS-ESS3-1)
- **WHST.9-12.7** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (HS-ESS2-5)
- **SL.11-12.4** Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (HS-ESS1-3)
- **SL.11-12.5** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. (HS-ESS2-1) (HS-ESS2-3) (HS-ESS2-4)

Mathematics:

- **MP.2** Reason abstractly and quantitatively. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-3) (HS-ESS1-4) (HS-ESS1-5) (HS-ESS1-6) (HS-ESS2-1) (HS-ESS2-2) (HS-ESS2-3) (HS-ESS2-4) (HS-ESS2-6) (HS-ESS3-1) (HS-ESS3-2) (HS-ESS3-3) (HS-ESS3-4) (HS-ESS3-5) (HS-ESS3-6)
- **MP.4** Model with mathematics. (HS-ESS1-1) (HS-ESS1-4) (HS-ESS2-1) (HS-ESS2-3) (HS-ESS2-4) (HS-ESS2-6) (HS-ESS3-3) (HS-ESS3-6)

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- **HSN-Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4) (HS-ESS1-5) (HS-ESS1-6) (HS-ESS2-1) (HS-ESS2-2) (HS-ESS2-3) (HS-ESS2-4) (HS-ESS2-6) (HS-ESS3-1) (HS-ESS3-4) (HS-ESS3-5) (HS-ESS3-6)
- **HSN-Q.A.2** Define appropriate quantities for the purpose of descriptive modeling. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4) (HS-ESS1-5) (HS-ESS1-6) (HS-ESS2-1) (HS-ESS2-3) (HS-ESS2-4) (HS-ESS2-6) (HS-ESS3-1) (HS-ESS3-4) (HS-ESS3-5) (HS-ESS3-6)
- **HSN-Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4) (HS-ESS1-5) (HS-ESS1-6) (HS-ESS2-1) (HS-ESS2-2) (HS-ESS2-3) (HS-ESS2-4) (HS-ESS2-5) (HS-ESS2-6) (HS-ESS3-1) (HS-ESS3-4) (HS-ESS3-5) (HS-ESS3-6)
- **HSA-SSE.A.1** Interpret expressions that represent a quantity in terms of its context. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4)
- **HSA-CED.A.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4)
- **HSA-CED.A.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. (HS-ESS1-1) (HS-ESS1-2) (HS-ESS1-4)
- **HSF-IF.B.5** Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. (HS-ESS1-6)
- **HSS-ID.B.6** Represent data on two quantitative variables on a scatter plot, and describe how those variables are related. (HS-ESS1-6)

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ENGINEERING DESIGN

ELA/Literacy:

- **RST.11-12.7** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. (HS-ETS1-1) (HS-ETS1-3)
- **RST.11-12.8** Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information. (HS-ETS1-1) (HS-ETS1-3)
- **RST.11-12.9** Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. (HS-ETS1-1) (HS-ETS1-3)

Mathematics:

- **MP.2** Reason abstractly and quantitatively. (HS-ETS1-1) (HS-ETS1-3) (HS-ETS1-4)
- **MP.4** Model with mathematics. (HS-ETS1-1) (HS-ETS1-2) (HS-ETS1-3) (HS-ETS1-4)