Approved Facility Schools
Appendix 1
Science Connections to Common Core State Standards
Grade 6-8 Earth and Space Science

ELA/Literacy:

- **RST.6-8.1** Cite specific textual evidence to support analysis of science and technical texts. (MS-ESS1-3) (MS-ESS1-4) (MS-ESS2-2) (MS-ESS2-3) (MS-ESS2-5) (MS-ESS3-1) (MS-ESS3-2) (MS-ESS3-4) (MS-ESS3-5) (MS-ETS1-1) (MS-ETS1-2) (MS-ETS1-3)

- **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-ESS1-3) (MS-ESS2-3) (MS-ESS3-2) (MS-ETS1-3)

- **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) (MS-ETS1-2) (MS-ETS1-3)

- **WHST.6-8.1** Write arguments focused on discipline content. (MS-ESS3-4)

- **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-ESS1-4) (MS-ESS2-2) (MS-ESS3-1)

- **WHST.6-8.7** Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. (MS-ESS3-3) (MS-ETS1-2)

- **WHST.6-8.8** Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. (MS-ESS2-5) (MS-ESS3-3) (MS-ETS1-1)

- **WHST.6-8.9** Draw evidence from informational texts to support analysis, reflection, and research. (MS-ESS3-1) (MS-ESS3-4) (MS-ETS1-2)

- **SL.8.5** Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. (MS-ESS1-1) (MS-ESS1-2) (MS-ESS2-1) (MS-ESS2-2) (MS- ESS2-6) (MS-ETS1-4)

Mathematics:

- **MP.2** Reason abstractly and quantitatively. (MS-ESS1-3) (MS-ESS2-2) (MS-ESS2-3) (MS-ESS2-5) (MS-ESS3-2) (MS-ESS3-5) (MS-ETS1-1) (MS-ETS1-2) (MS-ETS1-3) (MS-ETS1-4)

- **MP.4** Model with mathematics. (MS-ESS1-1) (MS-ESS1-2)

- **6.RP.A.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. (MS-ESS1-1) (MS-ESS1-2) (MS-ESS1-3) (MS-ESS3-3) (MS-ESS3-4)

- **7.RP.A.2** Recognize and represent proportional relationships between quantities. (MS-ESS1-1),(MS-ESS1-2),(MS-ESS1-3) (MS-ESS3-3) (MS-ESS3-4)

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- **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-ESS1-2) (MS-ESS1-4) (MS-ESS2-2) (MS-ESS2-3) (MS-ESS3-1) (MS-ESS3-2) (MS-ESS3-3) (MS-ESS3-4) (MS-ESS3-5)

- **7.EE.3** Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. (MS-ETS1-1) (MS-ETS1-2) (MS-ETS1-3)

- **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-ESS1-2),(MS-ESS1-4) (MS-ESS2-2),(MS-ESS2-3) (MS-ESS3-1) (MS-ESS3-2) (MS-ESS3-3) (MS-ESS3-4) (MS-ESS3-5)

- **7.SP** Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. (MS-ETS1-4)