# Common Core State Standards Alignment for Challenging Units for Gifted Learners: Science

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<th>Chapter</th>
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| Chapter 3 - Memories Are Made of This | CCSS Math 6.SP.A Develop understanding of statistical variability.  
CCSS Math 6.SP.B Summarize and describe distributions.  
CCSS Math 7.SP.A Use random sampling to draw inferences about a population.  
CCSS Math 7.SP.B Draw informal comparative inferences about two populations.  
CCSS Math HSS-IC.A Understand and evaluate random processes underlying statistical experiments.  
CCSS Math HSS-IC.B Make inferences and justify conclusions from sample surveys, experiments, and observational studies.  
NGSS MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories. |
| Chapter 4 - A Human Physiology Role-Play Project | CCSS ELA SL.8.4 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.  
CCSS ELA SL.8.5 Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.  
CCSS ELA RST.6-8.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics. |
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| Chapter 4 - A Human Physiology Role-Play Project, *continued* | CCSS ELA WHST.6-8.7 Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.  
CCSS ELA 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. |
| Chapter 5 - The Science of Motion | CCSS Math 6.RP.A Understand ratio concepts and use ratio reasoning to solve problems.  
CCSS Math 6.EE.C Represent and analyze quantitative relationships between dependent and independent variables.  
CCSS Math 8.EE.B Understand the connections between proportional relationships, lines, and linear equations.  
CCSS Math 8.SP.A Investigate patterns of association in bivariate data.  
CCSS Math HSN-VM.A Represent and model with vector quantities.  
NGSS MS-PS3-1. Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object. |
| Chapter 6 - An Introduction to Food Science | CCSS Math 7.RP.A Analyze proportional relationships and use them to solve real-world and mathematical problems.  
CCSS ELA SL.8.4 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.  
NGSS MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures.  
NGSS MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.  
NGSS MS-LS1-7. Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism. |