



**During Operation Comet, student teams are exposed to the following national standards.**

<b>Next Generation Science Standards</b>
MS-SEP 6-8: Analyze and interpret data to determine similarities and differences in findings.
MS-SEP 6-8: Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of an investigation.
MS-SEP 6-8: Construct a scientific explanation based on valid and reliable evidence obtained from sources.
MS-SEP-6-8 Obtain and combine information from books and/or reliable media to explain phenomena or solutions to a design problem.
MS=SEP-6-8 Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomena.
3-5-ETS1-1: Engineering Design: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
3-LS4-3: Biological Evolution: Unity and Diversity: 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.
5-PS1-3: Matter and Its Interactions: Make observations and measurements to identify materials based on their properties.
5-PS2-1 Support an argument that the gravitational force exerted by Earth on objects is directed down.
MS-ESSI-1: Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.
MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient prevision to ensure successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
MS-ETS1-4: Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
MS-LS1-5: Construct an explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
<b>Common Core State Standards</b>
CCSS.ELA.SL.6.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA.RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements or performing technical tasks.
CCSS.ELA.RI.6.7: Integrate information presented in different media formats as well as in words to develop a coherent understanding of a topic or issue.
CCSS.ELA.SL.7.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
CCSS.ELA.SL.7.6: Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
CCSS.ELA.L.7.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or a phrase important to comprehension or expression.
CCSS.ELA-LITERACY.RI.5.4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.



CCSS.ELA-LITERACY.RI.5.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
CCSS.ELA-LITERACY.RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks
CCSS.MATH.CONTENT.5.NBT.A.3: Read, write, and compare decimals to thousandths.
CCSS.MATH.CONTENT.5.MD.C.5: Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.
CCSS.MATH.CONTENT.5.MD.A.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
CCSS.MATH.CONTENT.7.G.B: Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
MP1: Make sense of problems and persevere in solving them.
MP4: Model with mathematics.
MP5: Use appropriate tools strategically.

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