



During Lunar Quest, student teams are exposed to the following national standards:

Next Generation Science Standards
MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
MS-ETS1-2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
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-LS2-4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
MS-PS2-4: Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.
MS-SEP 6-8: Analyze and interpret data to determine similarities and differences in findings.
MS-ESS1-1: 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-SEP 6-8: Construct a scientific explanation based on valid and reliable evidence obtained from sources.
MS-LS1-5: Construct an explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
Common Core State Standards
7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
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.
MP6: Attend to precision.
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.
RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements or performing technical tasks.
RST.6-8.7: Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually.
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.
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.
SL.7.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, fact, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
SL.7.6: Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.