

Strand	Level	Division(s)	Competition	Objective	Engineering Lab Report	Sponsors	Subject/Discipline
Mathematics	Middle School	6-8	Team Math Challenge	Solve math questions	Not required	Cal State LA / UCSB	mathematics
Mathematics	High School	9-12	Team Math Challenge	Solve math questions	Not required	Cal State LA / UCSB	mathematics
Mathematics	Middle School	Novice and Experienced	Coding Solutions	Debug challenge and technical test using CodeHS (JavaScript) / incorporating math and real-world scenarios	Not required	UC Davis	computer science and mathematics
Mathematics	High School	Novice and Experienced	Coding Solutions	Debug challenge and technical test using CodeHS (Python programming) / incorporating math and real-world scenarios	Not required	UC Davis	computer science and mathematics
Engineering	Middle School	6 and 7/8	Moon Base	Design and build a lightweight structure using recycled cardboard to withstand highest amount of impact while protecting the astronaut	Required	CSU Long Beach / CSU East Bay	civil engineering
Engineering	High School	9/10 and 11/12	Moon Base	Design and build a lightweight structure using recycled cardboard to withstand highest amount of impact while protecting the astronaut	Required	CSU Long Beach / CSU East Bay	civil engineering
Engineering	Middle School	6 and 7/8	Cargo Glider	Design and build glider over an obstacle with a payload for distance	Required	IV	aerospace engineering
Engineering	High School	9/10 and 11/12	Cargo Glider	Design and build glider over an obstacle with a payload for accuracy	Required	IV	aerospace engineering
Engineering	Middle School	6 and 7/8	MESA Machine: Bean Bag Throw/Launch	Design and build complex machine to throw/launch bean bags	Required	USC	mechanical and electrical engineering
Engineering	High School	9/10 and 11/12	MESA Machine: Ball Throw/Launch	Design and build complex machine to throw/launch balls	Required	USC	mechanical and electrical engineering
Engineering	Middle School	6-8	NEDC	Designing for Local Change		Statewide / UCLA	Communication, Technical Knowledge, and Human Centered Engineering.
Engineering	High School	9-12	NEDC	Designing for Local Change		Statewide / UCLA	Communication, Technical Knowledge, and Human Centered Engineering.
Science	Middle School	6 and 7/8	Crime Scene Science	Analyze/solve a crime scene following principles of CSI and forensic sciences	science journal (in the rules)	USC / UCSF	life science
Science	High School	9/10 and 11/12	Crime Scene Science	Analyze/solve a crime scene following principles of CSI and forensic sciences	science journal (in the rules)	USC / UCSF	life science + biology
Science	Middle School	6-8	AI for Social Good	Use AI image recognition models to classify images for nutritional and environmental science	Not required	UC Davis /UCSF	data science + nutrition + environmental science
Science	High School	9-12	AI & Health Disparities	Use AI chatbots to analyze statistical data about different populations and health risks	Not required	UC Davis /UCSF	data science + medical science
Achievement			Engineering Lab Report	To have students apply the engineering design process directly to the design, planning and construction of projects		UCR	

Timeline:

September 1 Posted on Statewide website - DRAFT version rules

November 2 Posted on Statewide website - FINAL version rules