MESA Math · Engineering · Science Achievement

MESA Day 2026 Grid

	Level	Division(s)	Competition	Objective	Engineering Lab Book	Sponsors	Subject/Discipline
Mathematics	Middle School	6-8	**Math Escape Challenge**	Solve math questions through Brain Chase	Not required	Pacific / Cal State LA / Ukiah Field Station	mathematics
Mathematics	High School	9-12	**Math Escape Challenge**	Solve math questions through Brain Chase	Not required	Pacific / Cal State LA / Ukiah Field Station	mathematics
Mathematics	Middle School	Novice and Experienced	**Coding Solutions**	Debug challenge and technical test using CodeHS (JavaScript) / incorporating math	Not required	UC Davis / UC Riverside	computer science and mathematics
Mathematics	High School	Novice and Experienced	**Coding Solutions**	Debug challenge and technical test using CodeHS (Python programming) / incorporating math	Not required	UC Davis / UC Riverside	computer science and mathematics
Engineering	Middle School	6 and 7/8	**Moon Base**	Design and build lightweight structure using recycled cardboard to withstand highest amount of impact while protecting the astronaut (Impact-to-Mass Ratio)	Required	CSULB / CSU East Bay	civil engineering
Engineering	High School	9/10 and 11/12	**Moon Base**	Design and build lightweight structure using recycled cardboard to withstand highest amount of impact while protecting the astronaut (Impact-to-Mass Ratio)	Required	CSULB / 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 distance	Required	IV	aerospace engineering
Engineering	Middle School	6 and 7/8	**MESA Machine: Ball 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	
Engineering	High School	9-12	**NEDC**	Designing for Local Change		Statewide / UCLA	
Science	Middle School	6 and 7/8	**Prepared Speech - Sustainable Development**	Prepared group presentation on sustainable environment	Not required	UCI / SJSU	environmental science
Science	High School	9/10 and 11/12	**Impromptu Speech - Environmental Science**	Impromptu group presentation on environmental science	Not required	UCI / SJSU	environmental science
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 + biology
Science	High School	9/10 and 11/12	**Bio Breakthrough**	CRISPR Quiz Bowl,Transcription, and Cas9 model presentation	science journal (in the rules)	UCSF / USC	biology
Science	Middle School	6-8	**AI for Social Good (PILOT)**	Train an image classification model to identify the primary macronutrient in different foods	Not required	UC Davis / UCSF	Data Science
Science	High School	9-12	**AI & Health Disparities (PILOT)**	Address real-world health disparities by analyzing public datasets	Not required	UC Davis / UCSF	Data Science
Achievement			**Engineering Lab Book**	Lab book for required competitions		UCR	

Timeline:

September 2	Posting on Statewide website - DRAFT version rules
November 3	Posting on Statewide website - FINAL version rules