

- LEVEL:** Middle School/High School
- NUMBER OF TEAMS:** One (1) team per school can participate at the MESA Day state competition. Three (3) teams can participate at MESA regional events.
- TEAM MEMBERS:** Two (2) to Four (4) Students per Team
- OBJECTIVE:** Students will participate in a scavenger hunt at the campus of the university hosting the event. Students will need to check in at stations where they will solve a problem involving computer science concepts. Students WILL NOT use a computer for any of the problems.
- MATERIALS:** All materials will be provided by MESA.
- RESOURCES:**
The problems will be themed using the resources below.
Computer Science Unplugged: www.csunplugged.org
Code.org: <https://code.org/curriculum/unplugged>

TESTING PARAMETERS:

1. All teams members must stay with their team at all times. You may not split up to accomplish the tasks.
2. Teams will begin and end the problem at the same location.
3. There will be a total of 5 tasks that are sequential.
4. Tasks will be scored individually.
5. Total time will be recorded and counted as part of the score.
6. Students will be walking outside and should be prepared for the weather.

JUDGING:

1. All teams will start promptly at 9:00.
2. Teams will be given the first clue at 9:00. They will determine the location of the next clue and proceed to the location.
3. At the location of the next clue, students will need to solve a problem relating to computer science. Teams will have a total of 10 minutes to solve the problem. If they are unable to solve the problem in that time, they will be given the next clue for the following location.
4. Each problem will be scored at the location. Teams will carry score sheet to each location.
5. At the final location, when the problem has been solved, the final time will be recorded in minutes.

SCORING CRITERIA:

1. Teams will carry their scoresheet with them from location to location.
2. Each problem will have a maximum score of 25 points.
3. At the final location, the time in minutes will be recorded.
4. The final score will be determined by summing the score of the five locations and dividing by the time in minutes.
5. The winning team will be the team with the highest points.
6. In the case of a tie, the team with the highest summed point value will be used to determine the winner.



Event Specifications
Computer Science Scavenger Hunt
MESA Day 2018

School: _____

Student Names: _____

For Official Use Only

Location	Score	Judge Initials
1		
2		
3		
4		
5		
Total		

Time (in minutes): _____

Total Score (Total/Time): _____

Lead Judge Signature: _____

Student Signature: _____

Comments/Suggestions:

Rubric for Engineering Design Notebooks (EDN).

EDN Goals	3	2	1	0
1. Explore				
1.1 Problem Statement. Accurately describes, in your words, the design objective (includes success criteria, constraints constants and variables)	Specific description of problem, success criteria, constraints, variables and constants	Basic...	Weak...	No...
1.2 Depth of Free exploration. Prior knowledge, brainstorming & hands-on exploration documented.	Numerous examples of brainstorming and hands-on exploration observations.	Regular...	Few...	No...
1.3 Research in Design: Research ideas about your design that might be useful. Record information using different sources (e.g. books, websites, interviews from experts).	Clear analysis of other design pros/cons.	Basic...	Scant...	No...
2. Design				
2.1 Design Plan. Includes reasoning on your design choices (materials used, modifications, etc.). Use data from past trials, research and design considerations.	Clear reasons given (based on data or research) for each design choice.	Basic...	Scant...	No...
2.3 Design sketching and/or photos. Prior & during build, team sketches, 2-D or 3-D perspective drawings.	Numerous representations of each design iteration.	Regular...	Scant...	No...
3. Test				
3.1 Observation. Data & written observations (tables, graphs, labeled drawings, etc.).	Numerous presentation of quantitative & qualitative data, graphs & charts follow design progression.	Regular...	Scant...	No...
3.2 Reflection/Analysis. Assesses pros and cons of design/materials, testing procedure, etc. Apply test results and analysis to pose a theory, recommend and argue for a next step, or draw an insightful conclusion. Restate the purpose in your conclusion.	Detailed reflection shows how design considerations and logic flowing from research, test analysis, etc.	Basic...	Scant...	No...
4. EDN Organization				
4.1 Structured. Includes Table of Contents with key elements. Elements of EDN can be used to answer judges questions easily	Clear organization utilizes defined sections.	Basic...	Minimal..	No...
4.2 Labeled. Clearly labeled with School and Team Members names.			Yes	No
Column Totals (for selected categories)				
Subtotal (out of 25)				
Modifier			(S ÷ 25) x 10	
Score (out of 10)				

Comments/Suggestions: