Tacoma MESA App Challenge 2019

This challenge involves the design and <u>creation of an app</u> that is *either a simulation, program, or game.* All middle and high school teams will participate in the display & presentation portion, and, must choose to either do a Technical Paper <u>or</u> Audience Pitch.

Display (Trifold/Poster/Powerpoint/Sway) & Presentation- Teams will produce a display that will summarize their idea generation, data on user feedback of prototype, photographs/drawings/diagrams, technical information, coding, and any other information which can help to explain their app.

* Pitch - Teams will explain, persuade, and demonstrate the app to a panel of judges in a "shark tank" like experience.

* Technical paper- Two weeks in advance of Tacoma MESA Day, teams will submit a 5-10-page technical paper (MS word or pdf format) which examines the planning & design, coding, research & development, and operation of their app.

> ** Note: teams must do either the pitch or technical paper*

A rubric will be used to score each section separately and the scores from all three sections will be tabulated to determine category and the overall challenge winners. Please note specifics in corresponding rubrics.

<u>Rules</u>
Team will be comprised of 2-4 students working collaboratively together to design & create a fully functional app in visual based programming language that is either a program, game, or simulation.
1) Ideas
   a. App must be either a simulation, program, or game.
   b. The App must be creative, original, and collaboratively made.
   c. App must be created in a visual based program language (Scratch, AppInventor2, etc).
   d. Teams must cite their sources for any borrowed audio, visual, or intellectual property

2) Code
   a. App works as team intends, has a beginning/end, and has a purpose
   b. Team is able fully explain the code and functions of their app.
   c. Teams must create a <u>flow chart</u> to demonstrate logical and reasonable user navigation.
   d. Teams must be able to explain the code, algorithms, functions, and usability.
   e. The app must be able to accept user <u>input</u> to create an interactive environment.
   f. Scratch, <u>AppInventor2</u> or other visual based program was used to create the app.

3) Participation of <u>All</u> team members
   a. All participating team <u>members must</u> be involved in the design of app and competition
   b. Team must demonstrate <u>their app</u> for the judges and explain how it works.
   c. Teams will have 10 minutes for Display and Presentation, and, 10 minutes for Pitch.
   d. Teams submitting technical papers must submit by deadline to avoid penalty.