MESA DAY CONTEST RULES
2023-2024
(FINAL/OFFICIAL)

Think Tank
Environmental Sustainability ~ EV's for Everyone?

LEVEL: High School (HS)

DIVISION(S): Grades 9/10 and Grades 11/12

COMPOSITION OF TEAM: 2-3 students per team

NUMBER OF TEAMS: Preliminary – Determined by your local MESA center
Regional – # of teams per division at the discretion of each region
(Northern/Central, LA/Central Coast, and Southern)

SPONSORS: UC Irvine MESA College Prep
Global Institute for Futures Teaching (GiFT)

OVERVIEW: The United Nations defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". https://www.youtube.com/watch?v=zx04Kl8y4dE
Imagine a future wherein EVERYONE has an Electric Vehicle (EV). In this future, the world is without harmful emissions and pollutants because all vehicles are Zero Emissions. What would the impacts be—both positive and negative—of this possible future?
Teams will research zero emissions technology, environmental impacts, and other unintended consequences of EVs for Everyone, then create a presentation which illustrates this future with supporting evidence of both the "pros" and "cons" of this possible future.
Knowledge of the technologies, impacts and consequences shall be presented in a MESA "Think Tank Talk" (similar to a TEDtalk).

Participation logistics and limits may vary by host site. Advisors and students are responsible for verifying this information with their local MESA center.
This competition will be in-person for 2023-2024.

MATERIALS: The host MESA Center will provide the following:
- Computer and projector with HDMI/USB/VGA/Display Port cables (verify with host Center)
- Table

The team is responsible for the following:
- Completion of the course: EV's For Everyone? - High School "Think Tank Talk" Competition (located online in the GIFT platform)
- "Think Tank Talk" Presentation
- Visual Aid

GENERAL RULES:

1) Teams must **REGISTER** and complete the online GIFT EVs for Everyone? - High School "Think Tank Talk" Competition course. Teams should consult with their MESA advisor before using school based email accounts to access the course. Use of Gmail, Yahoo!, or other free email hosting sites are encouraged. Following registration, teams will receive a confirmation email granting them access to the EV's for Everyone course.

2) Teams will explore how vehicle exhaust causes harmful pollution, research current zero emission technology, and create a design to conceptualize a future where EVERYONE has an electric vehicle. The design concept should address the following: "If everyone drove an electric vehicle, what are the implications?" Research and design concept shall be presented in a "Think Tank Talk" presentation.

3) The "Think Tank Talk" MUST include a visual aid.

4) Teams are encouraged to explore additional research on the ramifications of a zero emissions future, and the infrastructure, cultural, educational, and technological changes that would be required.

Think Tank Talk

1) Teams will create a "Think Tank Talk" to introduce their design concept. The "Think Tank Talk" should include an EV overview and introduction of the design concept.

2) The EV overview should answer the following questions:
   a. How does vehicle exhaust cause harmful pollution? How do these pollutants affect the environment and human body?
   b. What are zero emission vehicles?
   c. What are 2 myths about EV's?
   d. Are EV's really better for the environment, why or why not?
   e. What could happen to gas stations if all vehicles were electric?

3) The introduction of the design concept should include the following:
   a. Introduce and highlight key features of your design.
   b. Explain how your design is innovative and uniquely suited to answer the question, "What if EVERYONE has an electric vehicle?"
   c. Explore how your design will benefit your community and society as a whole.
   d. Explore the individual and societal cost of your design.
   e. Address barriers to access and equity concerns.

4) The "Think Tank Talk" should be creative and engaging and utilize each of the following:
   a. Emotional (those that touch one's heart)
   b. Novel (those that teach us something new)
   c. Memorable (those that present content in ways one will never forget).

5) The "Think Tank Talk" MUST include a visual aid which reflects the design concept. The visual aid may be a PowerPoint, video, physical model, a rendering by hand or utilizing CAD, sketch, storyboard, Minecraft world, or other medium of choice. Teams without a visual aid will not be allowed to compete.

6) Teams will be scored based on the following criteria:
   a. Content Knowledge (Think Tank Talk Rule #2 & #3 above)
   b. Clarity of Communication
   c. Creativity and Originality
   d. Quality of Visual Aid
   e. Engagement and Impact
   f. Collaboration and Teamwork

7) The "Think Tank Talk" may not exceed 5 minutes.

JUDGING:

1) Judges will assemble all teams in the competition room, read the rules, explain judging procedures, and answer any related questions.

2) Judges will determine team order by random selection and will post the team order prior to the start of competition.

3) If a team is called twice and does not check in within 30 seconds, they will not be allowed to present.

4) Each team will be given one minute to set up.

5) "Think Tank Talk"may not exceed 5 minutes. Once 5 minutes has elapsed, teams will be stopped and prevented from speaking beyond the 5 minute mark.

6) Judges will provide time signals at the following intervals: one (1) minute, thirty (30) seconds, and five (5) seconds remaining.

7) "Think Tank Talk" will be judged by a panel of 2-3 judges according to the Score Sheet (see attachment). Judges' scores are averaged to determine final scores.

AWARDS:

- Awards will be given per division: Grades 9/10 and Grades 11/12.
- Medals will be awarded for 1st, 2nd, and 3rd place.
- Please check with your MESA center to determine the number of teams that advance to Regional MESA Day.

ATTACHMENTS/APPENDIX:

- Score Sheet
- Scoring Rubric

SCORE SHEET FOR THINK TANK
High School – Grades 9/10 and Grades 11/12
Copies of this inspection and score sheet will be provided by the MESA Day Host Center.

Student Names: _____   MESA Center: _____

School: _____   **Grade** 9/10 or 11/12*(circle one)*

Think Tank Talk Criteria	Excellent (4 points)	Good (3 points)	Fair (2 points)	Needs Improvement (1 point)
Content Knowledge: EV Overview				
Describe how vehicle exhaust causes harmful pollutants and their effect on humans and the environment.	4	3	2	1
Define zero emission vehicles.	4	3	2	1
Describe 2 myths about EV's.	4	3	2	1
Explore if EV's are better for the environment (why or why not).	4	3	2	1
Analyze what could happen to gas stations if all vehicles were electric.	4	3	2	1
Content Knowledge: Design Concept				
Introduce and highlight key features of the design.	4	3	2	1
Explain how the design is innovative and uniquely suited to answer the question, "What if EVERYONE has an electric vehicle?"	4	3	2	1
Explore how the design will benefit the community and society as a whole.	4	3	2	1
Explore the individual and societal cost of the design.	4	3	2	1
Address barriers to access and equity concerns.	4	3	2	1
Presentation				
Clarity of Communication	4	3	2	1
Creativity and Originality	4	3	2	1
Quality of Visual Aid	4	3	2	1
Engagement and Impact	4	3	2	1
Collaboration and Teamwork	4	3	2	1
COLUMN TOTALS:				
THINK TANK SCORE:				**/60**

Think Tank Scoring Rubric

Criteria	Excellent (4 points)	Good (3 points)	Fair (2 points)	Needs Improvement (1 point)
Content Knowledge	Demonstrates in-depth, accurate understanding of environmental science concepts and electric vehicles, with clear connections to the topic.	Shows a solid understanding of environmental science concepts and electric vehicles, with some connections to the topic.	Presents basic understanding of environmental science concepts and electric vehicles, with limited connections to the topic.	Exhibits limited understanding of environmental science concepts and electric vehicles, with minimal connections to the topic.
Clarity of Communication	Information is effectively organized, logically presented, and clearly conveys ideas. Provides a clear and engaging narrative that facilitates understanding.	Information is generally well-organized and conveys ideas clearly. Provides a cohesive narrative that is mostly understandable.	Information is somewhat organized, but may lack clarity in conveying ideas. Narrative may have some gaps in coherence.	Information is disorganized and lacks clarity in conveying ideas. Narrative is difficult to follow or understand.
Creativity and Originality	Demonstrates innovative and unique approaches in storytelling, visual design, and audio presentation. Incorporates creative elements that enhance the overall impact of the project.	Shows some creative elements in storytelling, visual design, and audio presentation. Includes a few unique aspects that contribute to the project's impact.	Exhibits limited creativity in storytelling, visual design, and audio presentation. Includes some generic or commonly used elements.	Lacks creativity in storytelling, visual design, and audio presentation. Contains mostly generic or unoriginal elements.
Visual Aid	Visual aid is of high quality, well-composed, and accurately depicts the design concept.	Visual aid is generally of good quality, with some room for improvement.	Visual aid has some quality issues.	Visual aid quality is poor, does not aid in the design concepts message.
Engagement and Impact	Project effectively engages and captivates the audience, evoking emotions and inspiring action or awareness. Demonstrates a strong impact on the viewer/listener.	Project engages the audience to a reasonable extent, providing some inspiration and creating awareness. Demonstrates a moderate impact on the viewer/listener.	Project has limited audience engagement, with minimal inspiration or awareness created. Demonstrates a weak impact on the viewer/listener.	Project fails to engage the audience effectively, lacking inspiration or awareness. Demonstrates little to no impact on the viewer/listener.
Collaboration and Teamwork	Clearly demonstrates effective collaboration and distribution of tasks among team members. Contributions from each member are well- coordinated, balanced, and cohesive.	Shows adequate collaboration and distribution of tasks among team members. Contributions from each member are generally balanced and coordinated.	Collaboration and task distribution among team members are somewhat lacking or uneven. Contributions maybe inconsistent or disconnected.	Collaboration and task distribution among team members are weak or non-existent. Contributions are minimal or unrelated to the project.