

Ultimate Egg Drop Challenge



OVERVIEW

Applying leadership and 21st century skills, participants design and produce a device to protect an egg from a drop of 50-100 feet.

Video submissions must be submitted to:

cotsa.submissions@gmail.com by April 15th, 2022

MANDATORY REQUIREMENTS

All participants must be members of an affiliated TSA chapter in Colorado. Communication regarding this event is done through Colorado TSA ONLY. **Do not contact the Colorado Rockies.** Questions and document/video submissions will be completed on the COTSA website: coloradotsa.org under the STEM at the Rockies tab, Submission deadline April 15, 2022

ELIGIBILITY

Open to middle school chapters.

One team of two to six (2-6) members per chapter.

ATTIRE

TSA competition attire, or school logo clothing is great!!! Show that Colorado TSA and school spirit!

PREPARATION

- A. Participants focus their efforts on researching, developing, and testing a contraption or container to protect a raw chicken egg from a drop of 50'-100'
- B. Preliminary round will consist of submitting a link to a video of your team showing and describing your egg drop creation. An Unlisted Youtube link is preferred.
- C. Video Submissions should be emailed to: cotsa.submissions@gmail.com no later than April 15, 2022.
- D. Selected semifinalists will be invited to test their Egg Drop creation at the Colorado Rockies STEM day, May 5, 2022, at Coors Field.

REGULATIONS AND REQUIREMENTS

Students will work to develop their leadership and 21st century skills in the process of preparing for and participating in this Steve Spangler, Colorado Rockies, and Colorado TSA event.

PRELIMINARY ROUND

- A. Each team or school will submit a video of their Egg Drop Creation, and their team briefly explaining their design.
 - a. The Egg Drop Creation
 - i. The Egg Drop Creation must be able to safely hold one (1) standard raw egg. The egg must be easy to put in and take out without destroying the creation, container, or contraption.
 - ii. The Egg Drop Creation must not have an initial size larger than 18"x18"x18"
 - iii. The Egg Drop Creation must not weigh more than 3 pounds, including an egg.
 - iv. The Egg Drop Creation must not have any entanglements, or anything the might get caught up in any equipment or machine that might be used to lift your creation.
 - v. An attachment loop, or sling may be added by event coordinators on the day of the event, so please have the TOP of your Egg Drop Creation clearly labeled.
 - vi. No chemicals, explosives, or anything of that nature is allowed.
 - vii. Pizazz, showmanship, and creativity is HIGHLY ENCOURAGED!!!
 - viii. The actual egg used at the Colorado Rockies STEM Day will be provided by event coordinators: **DO NOT BRING ANY EGGS TO THE EVENT!!!**
 - ix. The following materials may NOT be used:
 1. Glass
 2. Flammable, corrosive, or explosive materials
 3. Compounds that produce odors or gases
 4. Metal
 - x. Submission

SEMIFINAL ROUND

- A. The teams that are chosen will bring their Egg Drop Creations to Coors Field on May 5th, 2022
 - a. Do NOT bring an egg, the actual raw egg to be used will be provided by event coordinators.

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- b. Chapter advisors will be notified if their team is selected for the Colorado Rockies STEM Day.
- c. Participants must be able to attend the event on May 5th, 2022, at Coors Field.

EVALUATION

PRELIMINARY ROUND

- A. The Video submission
- B. The Egg Drop Creation

SEMIFINAL ROUND

- A. In Person at Colorado Rockies STEM Day, May 5, at Coors Field.

STEM INTEGRATION

This event aligns with the STEM (Science, Technology, Engineering, and Mathematics) educational standards.

LEADERSHIP AND 21ST CENTURY SKILLS DEVELOPMENT

This event provides opportunity for students to build and develop leadership and 21st century skills including but not limited to:

- Communication
- Collaboration/Social Skills
- Initiative
- Problem Solving/Risk Taking
- Critical Thinking
- Perseverance/Grit
- Creativity
- Relationship Building/Teamwork
- Dependability/Integrity
- Flexibility/Adaptability

CAREERS RELATED TO THIS EVENT

This competition has connections to one (1) or more of the careers below:

- Engineering technician
- Mathematician
- Mechanical engineer
- Physics teacher