



# 2024-2025 *You Be the Chemist*<sup>®</sup> Challenge

## Official Rules

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By participating in the Challenge, you agree to comply with all the rules and requirements set forth in these Official Rules.

## Participation Requirements

To participate in the 2024-2025 *You Be The Chemist Challenge*® cycle, participants must meet the following requirements:

1. Be a student in grades 5, 6, 7, or 8, and must not pass beyond grade 8 before April 1, 2024. An academic classification for the participant above grade 8 must not have been declared to any entity for any purpose by the participant, their parent/guardian, or a school official acting on the participant's behalf.
2. Not have reached the age of 15 before July 1, 2024.
3. Not compete in a Challenge competition in which their parent, legal guardian, or other family member is a Challenge Organizer, Judge, or moderator.
4. Not attend any Challenge competitions other than the one in which they are assigned to participate.
5. Participants must attend an in-person event if there is a Regional Challenge offered in their area, unless approved by CEF. Participants who do not have a Regional Challenge event nearby will attend one of the 2 available virtual Regional Challenges.
6. All students from their school must participate in the same Challenge competition. Participants will not be allowed to participate on a different day or through a different format (in-person vs. virtual) from their teammates or classmates. For example, if there are two Regional Challenge locations near your school, all student teams from that school must attend the same event.
7. Participate as part of a team of three or four at all rounds of competition. Exceptions due solely to a death in the immediate family or personal illness, with notification to CEF, will be made by CEF on a case-by-case basis.
8. Not have been declared a National Challenge competition first-place winning team member.

Any participant not in compliance with any of the eligibility requirements above shall be disqualified. Disqualified participants shall be required to forfeit prizes, titles, and any benefits awarded to the participant as a result of their participation in the Challenge.

## Team Substitutions

If a member of a team is no longer able to participate, there are two options depending on when this occurs.

### Before a Regional Challenge or Video Submission

1. Teams may update/change their roster before participating in a Regional Challenge and/or creating their video. This does not count as a substitution, it's just an update.

### Before the National Challenge

2. If changes in a team's composition occurs after a Regional Challenge **and** after creating the video, the following team substitution rules apply:
  - a. The new team member must adhere to the participation requirements.

- b. The new team member must have participated in the Regional Challenge or the video component.

Please note, substitutes may not participate if they do not meet the above requirements. Substitutes cannot attend the National Challenge if they did not participate in a Regional Challenge or the video component. Any changes to a team after the Team Composition form is submitted, must be communicated to [challenge@chemed.org](mailto:challenge@chemed.org).

## Study Materials & Content

Study materials and supporting information for participants are available on the CEF website. Participants are encouraged to review these study materials, including the periodic table, to prepare for each level of the Challenge competition. Participants should review the information on the periodic table and be familiar with using the periodic table to determine additional information about an element or a set of elements.

CEF provides all competition questions and corresponding answers for all levels of competition. Challenge competition questions are largely derived from information contained in CEF's study materials but are not limited to this information. Questions are based on an overall understanding of chemistry, general science concepts, and the relationships among various concepts.

Study materials and competition questions and answers are the intellectual property of CEF, and any copyright notices displayed on the materials and content shall not be removed. The study materials and competition questions may not be altered or reordered. Questions and answers are to be used only for competitions and are not to be distributed for any other reason. Improper use of Challenge competition questions or content is grounds for disqualification of a single participant or Challenge event.

## Regional Challenge Format

Team scores will be calculated after the virtual or in-person Regional Challenge has ended. Team members *must* participate on the same day through the same format (in-person vs. virtual).

The event will follow the format below:

Round	Number of Questions	Scoring
Round 1	10	Cumulative
Round 2	10	
Round 3	10	
Round 4	10	

A break will follow each round.

## In-Person

### **In-Person Regional Challenge**

#### In-Person Regional Challenge Rules

1. **Regional Challenge events:**
  - i. Regional Challenge events may only use questions supplied by CEF for the 2024-2025 Challenge cycle.
  - ii. Questions may not be altered and must be presented in the order CEF provides.
  - iii. Answers should only be scored using the scoring key provided by CEF.
  - iv. Questions must be simultaneously displayed to the participants and audience during the competition.
  - v. Participants will sit as a team and work together to answer each question.
  - vi. A moderator will state each question once. Questions will not be repeated unless requested to do so by the Judges.
  - vii. Teams will have limited time to provide their answer. Teams will be made aware of the time limit for each question.
  - viii. Teams will submit their answers using answer sheets provided by CEF.
  - ix. Teams must finish answering the question in the allotted time.
    - x. The moderator will read the correct answer once time expires, and after all answers are collected.
    - xi. Judges will begin scoring team responses as soon as all responses have been collected for each question.
  - xii. Winning Regional Challenge team(s) will be determined at the end of the event based on team scores.
  - xiii. If more than one team has the same score, the tiebreaker procedure must be used as outlined in the rules.
  - xiv. A Challenge that fails to meet any of the requirements listed above may result in the Challenge site and/or Organizer being prohibited from participating in the future.
2. **Regional Challenge Tiebreakers:** In the event of a tie at the conclusion of round 4, Regional Challenge events must use the procedures below to determine final scores.
  - i. Teams with tied cumulative scores (from all preceding rounds) are differentiated by combined scores from round 4 only.
  - ii. If a tie persists, one representative from each of the tied teams will answer the CEF multiple-choice questions one by one until the tie is broken.
  - iii. If a tie persists after using all the tiebreaker questions, contact CEF for further instructions.
3. **Judges:** Regional Challenge Organizers must designate at least two competition Judges for each event. Judges' responsibilities include:
  - i. Ensuring the competition complies with all rules.
  - ii. Scoring team answers using the scoring key for each round, tracking total team scores throughout the competition, and calculating team eliminations at the end of the competition.

- iii. Announcing competition results.
- iv. All Judges' decisions are final, appeals are not allowed.

### In-Person Participant & Audience Conduct

Participants and audience members must comply with the following rules of conduct. Violation of these requirements may result in a participant's or team's disqualification from the Challenge.

#### 1. Participants

- i. Participants may only talk to members of their team regarding competition questions and content during the competition. Participants may not talk to participants who are not on their team or audience members regarding the Regional Challenge content during the event.
- ii. Participants may not possess cell phones or other electronic devices while the Regional Challenge competition is in progress or during breaks in between rounds.
- iii. Participants may not have CEF study materials or related reference materials while the Regional Challenge competition is in progress or during breaks, except periodic tables distributed to participants for competition purposes.
- iv. Participants may only use scrap paper provided by Challenge Organizers. Participants may not use the scrap paper to communicate with participants on different teams or audience members.
- v. Any participant behavior deemed by the Organizer or Judges to be distracting, questionable, or dishonest is grounds for disqualification from the Challenge.

#### 2. Audience

- vi. Audience members may not disturb the competition or participants at any time.
- vii. Audience members may not approach the Judges at any point during the competition. Audience members may not approach the Judges about competition scoring or any competition rulings before or after the competition.
- viii. Audience members may not in any way record, disclose, or publish any competition questions. Audio and video recording during the competition is not permitted. Photographs are allowed if no part of competition questions appear in the image.
- ix. Any audience member deemed to be exhibiting distracting, questionable, or dishonest behavior will be asked to leave the competition. Any behavior that is deemed to be dishonest or perceived as giving an unfair advantage to a participant or team is grounds for disqualification of that participant or team.

### In-Person Disability Guidelines

A participant who is identified as having a physical impairment that substantially limits one or more of the participant's major life activities may request reasonable accommodation to participate in the Challenge. Requests for accommodation at a Regional Challenge must be sent to the Challenge Organizer. To make arrangements for reasonable accommodations, the Organizer must be notified at least 30 days prior to the Regional Challenge event in which the participant wishes to compete. Requests for reasonable accommodation at the national level should be sent to CEF at least 45 days prior to the National Challenge.

## Virtual

### Virtual Regional Challenge

#### Virtual Regional Challenge Rules

1. CEF is not responsible for technical issues participants may encounter during the virtual Regional Challenge (e.g.: computer freezes, Wi-Fi drops out, etc.).
2. Participants must form teams of three to four before participating.
3. Participants may work together as a team to answer each question or answer individually, and their scores will be averaged together for their overall Regional score.
4. A moderator will read each question once.
5. Participants will have limited time to provide their answer. Participants will be made aware of the time limit for each question.
6. Participants must finish answering the question in the allotted time.
7. Winning Virtual Regional Challenge team(s) will be determined and announced after all Virtual Challenge competitions have taken place.

#### Virtual Participant & Audience Conduct

Participants and audience members must comply with the following rules of conduct. Violation of these requirements may result in a participant's or team's disqualification from the Challenge.

1. Participants
  - i. To uphold academic integrity, participants are not permitted to search for answers by accessing outside resources during the competition.
  - ii. Participants may not possess cell phones or other electronic devices, other than the device they are using to participate, while the virtual Regional Challenge is in progress or during breaks in between rounds.
  - iii. Participants may not communicate with anyone outside of their team or consult outside sources during the virtual academic competition.
  - iv. Participants may not have CEF study materials or related reference materials near them while the virtual Regional Challenge is in progress or during breaks, except the CEF-provided periodic table.
2. Audience
  - i. Non-participants are not permitted to engage with participants during the virtual Regional Challenge.
  - ii. Non-participants may not disturb the competition or participants at any time.
3. Both
  - i. Participants and non-participants may not in any way record, disclose, or publish any competition questions during or after the virtual Regional Challenge.
  - ii. Any behavior by participants and non-participants that is deemed to be dishonest or perceived as giving an unfair advantage to a participant or team is grounds for disqualification of that participant or team.

## Virtual Disability Guidelines

A participant who is identified as having a physical impairment that substantially limits one or more of the participant's major life activities may request reasonable accommodations to participate in the virtual Regional Challenge. To make arrangements for reasonable accommodations, CEF must be notified by December 31, 2024.

## Video Rules

**THEME: You Be The Solution: Develop a sustainable solution to a local natural hazard that ensures community safety.**

As part of the *You Be The Chemist Challenge*®, teams will create a video investigating **earth science concepts** in which they will form a start-up company that has developed a **sustainable solution** to keep their community safe. Videos will introduce the start-up as a company, discuss who is part of the company's team, and present the problem and solution the company is addressing. Videos should address how specific concepts of earth science explain the problem and solution.

### Video Requirements - **Participant videos must:**

1. Be 5-7 minutes in length. **Videos shorter than 5 minutes or longer than 7 minutes will not be scored. Videos that are sped up or at an increased speed will not be scored.**
2. Introduce your start-up company
  - a. State your company mission
  - b. Describe the industry your company works in (refer to samples below)
  - c. Present careers and roles from different organizational levels within the company that contribute to its success
    - i. Must present at least three careers (see suggestions in the [Video Storyboard Template](#)) and the educational requirements for each of those careers
    - ii. Careers must be connected to your solution
    - iii. Careers from both **degreed positions and non-degreed positions** (such as skill-trades) must be represented. **Videos lacking at least one non-degreed position will not be scored.**
3. Explain the problem your team has chosen
  - a. Include details describing the **earth science concepts** associated with the problem (see suggestions below)
  - b. Describe the personal, local, or environmental impact of the problem
4. Present an innovative solution
  - a. Include details describing the **earth science concepts** and the related **fundamental chemistry principles** involved in developing the solution
  - b. Describe how your company is addressing sustainability in its solution using at least one of the United Nation's 17 Sustainable Development Goals (SDGs).
  - c. Include a diagram, drawing, or picture of the company's solution
  - d. Share the strengths and obstacles in implementing or creating your solution
  - e. Connect identified careers of varying educational levels to the solution

5. Opening and closing titles
  - a. Opening titles at the beginning of the video, must include video title/company name, this year's Challenge theme, school/group name, and team ID
  - b. Closing titles at the end of the video, must include school/group name and address, student names (first names and last initials), and team member contributions
  - c. Opening and closing titles should be a maximum of 10 seconds in length each. **Videos without opening and closing slides will not be scored.**
6. Be submitted along with a completed Video Storyboard Template
  - a. Storyboard Template must include citations in APA format (see suggestions below)
7. Ensure all members are visually present throughout the video and have a contributory role

### Additional Requirements:

1. Format and resolution
  - a. Videos should be saved in .mp4 – a universal video format that is viewable on all platforms
  - b. Resolution should be at least 640 x 480 pixels (HD is 1920 x 1080)
2. Original content and copyrighted material
  - a. A bibliography listing all sources used in researching and creating the video in APA format must be included in the end titles of the video. Please refer to this resource created by [Science Buddies®](#) for more step-by-step directions on creating an APA formatted bibliography.
    - i. Source list must include title, author, publisher, and copyright date
    - ii. Bibliography must also include internet sources, interviews, images, and videos
      1. [Directions on how to automatically format bibliographies in Microsoft Word](#)
      2. [Directions on how to automatically format bibliographies in Google Docs](#)
      3. [Use Grammarly's free Citation Generator](#)
  - b. All content must comply with copyright rules and regulations. We advise that students use wholly **original** content in their videos to avoid violation of copyright. However, if using anything other than original content in your video, be sure that one of the following applies:
    - i. It is in the public domain, meaning it was published in 1929 or earlier; however, be sure that the particular *performance* of the song you are using is in the public domain. For example, a performance of "Twinkle, Twinkle Little Star" by Taylor Swift probably has its own copyright protections, but you could perform the song with your team and use it freely. For more information about what is in the public domain, visit <https://www.pdinfo.com/public-domain-music-list.php>.
    - ii. It has a Creative Commons Attribution license. This license allows you to use a particular work as long as you credit the original author/performer. Be careful when researching a work's particular Creative Commons license and be sure it is a Creative Commons *Attribution* license. Visit <https://creativecommons.org/licenses/> for more information.
    - iii. It is completely royalty-free. If an original author/composer allows their work to be used without restrictions, this is royalty-free. Websites that offer royalty-free music will usually indicate this, so be sure to look for the licensing of a particular work you are interested in using. **Be careful!** If a song, image, etc. is "royalty-free for educational use," you may **NOT** use it in your video submission because the prizes for the *You Be The Chemist Challenge®* have monetary value which invalidates educational use.



### 3. Non-team member contributions

- a. Adult and/or other non-team member involvement in the video competition must be minimal. Challenge Organizers, Coordinators, teachers, parents, and other non-team members cannot actively participate in the research, storyboarding, filming, or editing of any parts of the project.
- b. Non-team member contributions to the storyboard and video may *only* include:
  - i. Helping to organize the team
  - ii. Supporting time management
  - iii. Providing clarification of the rules as needed
  - iv. Providing critical feedback or highlighting factual errors  
Non-team members may point out factual inaccuracies or explanations that are confusing or convoluted, **BUT** they may **NOT** contribute ideas, or provide solutions at the risk of disqualifying a team. (*Note – this can include pointing out factual errors but NOT correcting those factual errors. Students should be directed to re-check facts or do more research on a specific explanation if an adult sees a misconception or specific factual error.*)
  - v. Providing meeting places
  - vi. Ensuring safety  
Adults may instruct students on how to use tools—including lab materials, hardware, and software needed to create the project, **BUT** they may **NOT** actively work on the project.
  - vii. Giving encouragement
  - viii. Acting as extras in video

Video Submission: <https://youbethechemist.submittable.com/submit/5c8b453f-397d-4464-ac2f-9d6da0a81152/24-25-video-submission>

Videos must be submitted by **March 21, 2025** at 11:59 pm eastern time. Team Coordinators will receive Team Identifiers to use when submitting videos.

1. The Video score is combined with the team’s Regional Challenge score to determine the team’s overall score.
2. The overall score is used to determine state winners and National Finalists.

## National Challenge

- A. The top five teams from among the state/province winners will advance to the National Challenge in **Houston, TX June 10<sup>th</sup>-11<sup>th</sup>**.
- B. At the National Challenge, students will present their research and ideas from their video submission to a panel of judges and the top three teams will win scholarships.
- C. Teams competing in the National Challenge **must commit to attending all National Challenge events to participate.**
- D. National Challenge guidelines will be made available to National Finalists.

For questions, please contact CEF at [challenge@chemed.org](mailto:challenge@chemed.org).