

2015 National Challenge Format



National Challenge • National Challenge

Participants and all attendees must review and comply with the rules established by the Chemical Educational Foundation® (CEF) in this 2015 National *You Be The Chemist* Challenge® Format document and the 2015 National Challenge Rules document.

A. Overall Format

1. The number of participants, designated number of eliminations, and questions per round are as follows:

Round	Number of Participants	Number of Participants Eliminated	Number of Questions
Preliminary Round 1	36	8	10
Preliminary Round 2	28	7	10
Preliminary Round 3	21	6	10
Preliminary Round 4	15	5	10
<i>---One-hour lunch break---</i>			
Finals Round 1	10	3	6
Finals Round 2	7	2	6
Finals Round 3	5	1	6
<i>---25 minute break---</i>			
Quarter-final Round	4	1	6
Semi-final Round	3	1	6
Championship Round	2	1	10

2. National Challenge Judges and Officials appointed by CEF define the structure and format of the National Challenge. National Challenge Judges and Officials have the right to alter the competition format in the best interest of the competition at any point. Any alterations will be noted to the participants and audience members as necessary.
3. Participants will be staged alphabetically by last name for all rounds.
4. CEF will provide scrap paper and a pencil for each participant, this scrap paper is for computation purposes only. CEF will collect used scrap paper at the end of each round.

5. Participants will be provided with the CEF competition version of the periodic table for pre-selected questions as necessary throughout the competition.
6. Participants will be able to view each question and the possible multiple-choice answers on a screen as the moderator reads the question and answer choices aloud (questions and answer choices with long equations, symbols, or images may not be read aloud in their entirety).
7. Judges and officials will use the results from the electronic response system to track the number of correct and incorrect answers for each participant.
8. Questions and answer choices will be read once and will **not** be repeated unless requested by the National Challenge Judges and Officials.
9. Participants will answer multiple-choice questions each round using an electronic response system. Once the question and answer choices have been read aloud by the moderator, participants will have 10 seconds (unless otherwise noted) to submit their answers using the electronic response device. After the 10 seconds have passed and participants are no longer able to submit an answer, the correct answer will be shown and read aloud by the moderator. If participants do not submit an answer within the allotted time, their answers will not be registered by the electronic response system and considered incorrect.
10. After each round and any necessary tiebreaker rounds (please see additional information regarding tiebreaker rounds on page 4, section E) there will be a short break to allow the judges to review participant scores and determine which participants will advance in the competition. The designated number of participants eliminated after each round is indicated on page 1.
11. Before Preliminary Round 1, Finals Round 1, the Quarter-final Round, and the Championship Round, participants will be asked to test their electronic response system by answering a calibration question that will not count towards their total number of correct answers. If a participant's electronic device is not working properly, he/she must raise his/her hand immediately to notify the judges and officials before the competition rounds begins.

B. Preliminary Rounds 1-4 and Finals Rounds 1-3

1. Participants will respond to questions using an electronic keypad by pressing the multiple choice letter they would like to select for their answer.
2. At the conclusion of all Preliminary Rounds and Finals Rounds 1, 2, & 3 eliminations will be determined by each participant's cumulative score (excluding any tiebreaker rounds). The participant(s) with the lowest cumulative score(s) at the end of each round will be eliminated based on the designated number of eliminations listed on page 1.
3. If there are participants with tied cumulative scores at the end of Preliminary Rounds 1, 2, or 3, or at the end of Finals Round 1 or 2 that prevent the designated number of participants from being eliminated, the number of eliminations for that round will be adjusted and those tied participants will advance to the next round. If this should occur, additional eliminations will occur at the end of the following round(s) in order to meet the designated number of participants. See example below:

According to the format indicated on page 1, at the end of Finals Round 1 the three participants with the lowest cumulative scores are to be eliminated. At the end of Finals Round 1 The 10 participants have the following cumulative scores:

Participant A	50
Participant B	49
Participant C	49
Participant D	48
Participant E	47
Participant F	47
Participant G	40
Participant H	40
Participant I	40
Participant J	37

Participant J will be eliminated based on lowest cumulative score. Participants G, H, and I's tied cumulative score prevents the second and third designated eliminations from being made. Therefore, participants G, H, and I will advance to Finals Round 2.

Since there are two additional participants entering Finals Round 2 (than indicated in the designated format), the number of eliminations at the end of Finals Round 2 will be adjusted from two to four in order to reach the designated number of participants advancing to the Quarter-final Round.

4. In case of a tie after Preliminary Round 4 or Finals Round 3 a tiebreaker round will take place in order to determine which participant(s) will advance to Finals Round 1 or the Quarter-final round, respectively.

C. Quarter-final and Semi-final Rounds

1. The CEF staff is finalizing the electronic response system format for the Quarter-final, Semi-final, and Championships Rounds; details will be announced in May 2015.
2. At the end of the Quarter-final Round and Semi-final Round, **the participant with the lowest score for that round, and that round only, will be eliminated.** A cumulative score analysis will be used if there is a tie between the participants with the lowest score at the end of the round.
3. If there are participants with tied cumulative scores at the end of the Quarter-final and Semi-final Round that prevent the designated number of participants from being eliminated, those tied participants will enter a tiebreaker round to determine which participant will advance on in the competition.
4. When the number of participants is narrowed to two, the Championship Round will begin.

D. Championship Round

1. The final two participants will be asked to answer a set of 10 multiple-choice questions, using the same format as the Quarter-final and Semi-final Rounds.
2. The participant who answers the most questions correctly out of those 10 will be declared the National Challenge Champion.
 - a. If both participants have the same number of correct answers at the end of the Championship Round, the participants will enter a Championship tiebreaker round. In a Championship tiebreaker round participants will be asked a set of five questions, the participants who answers the most questions correctly out of those five will be declared the National Challenge Champion.
 - b. If participants still remain tied after a Championship tiebreaker round the participants will enter a regular format tiebreaker round where participants will be asked the same question at the same time. When one participant answers the question incorrectly and the other participant answers the question correctly, the participant who answered the question correctly will be declared the National Challenge Champion.

E. Tiebreaker Rounds

1. A tiebreaker round will only be used if there are tied cumulative scores that prevent the designated number of eliminations from being made at the end of the following rounds: Preliminary Round 4 and Finals Round 3. Also, if necessary, tiebreaker rounds will be used to determine which participants will be designated 3rd Runner-up, 2nd Runner-up, and 1st Runner-up, and National Challenge Champion.
2. Participants will respond to tiebreaker questions using the same response system format used in the round that preceded the tiebreaker round.
3. Participants who are participating in the tiebreaker round will be given the same question to answer at the same time.
4. After each tiebreaker question, the advancement of participants will be determined depending on the number of participants who answered the question correctly and the number of open positions in the next round. See the scenarios below:
 - a. If the number of participants who answered the tiebreaker question correctly is equal to the number of open positions in the next round, those participants who answered correctly will advance to the next round. Those participants who answered incorrectly will be eliminated.
 - b. If the number of participants who answered the tiebreaker question correctly is fewer than the number of open positions in the next round, those participants who answered correctly will advance to the next round. Those participants who answered incorrectly will be asked another tiebreaker question.

- c. If the number of participants who answered the tiebreaker question correctly exceeds the number of open positions in the next round, those participants who answered correctly will be asked another tiebreaker question. All participants who answered incorrectly will be eliminated.
5. Tiebreaker rounds will continue until all open positions for the next round have been filled.
6. For information about Championship tiebreaker rounds please refer to page 4, section D.

F. Competition Conclusion

1. If a Champion has not been declared by 5 pm (Eastern Time) or if all questions have been exhausted, the judges will tally the cumulative scores of the participants who remain in the competition to determine the results. The participants' scores and their resulting place in the competition will be determined based on the number of total correct answers throughout all competition rounds (excluding tiebreaker rounds). If the judges determine that more than one participant has the same cumulative score throughout all rounds for the positions of 3rd Runner-up, 2nd Runner-up, 1st Runner-up, and/or Champion, those participants will be declared joint 3rd Runners-up, 2nd Runners-up, 1st Runners-up, and/or Champions, respectively, and will be awarded with the prizes designated for that place.

