

Creative Problem Solving

New for 2019-2020

Competitors will not be required to show event guidelines at ILC. Time remaining announcements have been added to the test. The event rubric has been updated to a new format. Scholarship information has been added to the guidelines.

- Purpose** To encourage HOSA members to analyze the problem solving process and to work as a team to apply their problem solving skills in creating a solution to a hypothetical health or HOSA-related problem.
- Description** This event will involve two rounds of competition. Round One will consist of a written test to evaluate the team's understanding of problem solving processes and theories. Written test will measure knowledge and understanding at the recall, application or analysis levels. Higher-order thinking skills will be incorporated as appropriate. The test score from Round One will be used to qualify the team for Round Two, and will be used as part of the final score. The top scoring teams will advance to Round Two and will be given a potential problem related to HOSA, the health community, or a specific health issue. Teams will have 30 minutes to analyze the problem. Selected resource materials related to the problem will be provided. At the end of the preparation time, teams will have eight (8) minutes to present their solution to a panel of judges.
- Dress Code** Competitors shall wear the HOSA uniform or proper business attire. Bonus points will be awarded in both rounds for [proper dress](#). All team members must be properly dressed to receive bonus points.
- Rules and Procedures**
1. Competitors in this event must be active members of HOSA in good standing in the division in which they are registered to compete (Secondary or Postsecondary/Collegiate).
 2. Competitors must be familiar with and adhere to the ["General Rules and Regulations of the HOSA Competitive Events Program \(GRR\)."](#)
 3. Each team will consist of 3-4 team members.
 4. [Round One Test Instructions](#): The competitors will be given instructions and will be notified to start the test. There will be a maximum of 60 minutes to complete the test. Competitors should leave the testing site promptly after submitting all testing materials and evaluations.
 - A. All competitors shall report to the site of the event orientation at the time designated. The Round One test will immediately follow the orientation. **No proxies will be allowed for the orientation.** At ILC, [photo ID](#) must be presented prior to competing in each round.
 - B. The team test score average from Round One will be used to qualify the team for the Round Two presentation. The team test score average will then be added to the presentation score to determine final results.

C. Round I: Written Test Plan

Creative Thinking	30%
Clarification of Problems/Developing Objectives	15%
Examining Constraints/Developing Alternatives	15%
Problem Solving Strategies & Skills	10%
Problem Identification	10%
Generating Ideas & Solutions/Deciding a Course of Action	10%
Sharing Decisions/Troubleshooting/Implementation	10%

NOTE: *States/regions may use a different process for testing, to include but not limited to pre-conference testing, online testing, and testing at a computer. Check with your Area/Region/State for the process you will be using.*

5. **TIME REMAINING ANNOUNCEMENTS:** There will be a verbal announcement when there are 30 minutes, 15 minutes, 5 minutes, and 1 minute remaining to complete the test.
6. All official references are used in the development of the written test.
 - [Adair, John. *Decision Making & Problem Solving \(Creating Success\)*. Kogan Page. Latest edition.](#)
 - [Fogler, HS, LeBlanc, S., Rizzo, B. *Strategies for Creative Problem Solving*. Prentice Hall. Latest edition.](#)
 - [Michalko, Michael. *Creative Thinkering: Putting Your Imagination to Work*. New World Library. Latest edition.](#)
7. **Round Two:** the problem is a secret topic. Each team will be asked to solve the same problem. Professional ethics demand that competitors **DO NOT** discuss or reveal the secret topic until after the event has concluded. Competitors who violate this ethical standard will be penalized per the [GRRs](#).
8. Resources about the secret topic may be provided to teams for use during their 30 minute preparation time (such as data, supporting research, etc.).
Materials allowed in preparation room:
 - HOSA will provide index cards for taking notes.
 - HOSA will provide flip chart paper and markers for preparing solution materials.
 - Competitors may NOT bring anything into the preparation room.
9. The section leader will announce when teams have five (5) minutes and one (1) minute remaining in the preparation room. At the one minute mark section leader will announce, "You have one minute remaining. Please conclude your preparation, gather your materials, and prepare to be escorted to the presentation room."
10. At the conclusion of the 30 minute preparation time, teams will be escorted to another room for their oral presentation.
Materials allowed in the oral presentation room:
 - Index cards the team prepared as notes in the preparation room.
 - Flip Chart paper the team prepared to support their solution in the preparation room.
 - Extra paper, markers, or any other materials will NOT be allowed in the presentation room.

11. Teams will be allowed a maximum of eight (8) minutes for their oral presentation of a solution to the secret problem. The timekeeper shall present a flash card advising the competitors when there is one (1) minute remaining. Time will be stopped at the end of eight (8) minutes. Judges will have two additional minutes to complete the rating sheet.
12. All team members must take an active role in the presentation.
13. In case of a tie, the highest averaged test score will be used to determine the rank.
14. HOSA offers numerous scholarships every year to its members interested in pursuing a variety of health careers. As you consider participating in this competitive event, please keep in mind there may be a HOSA Scholarship offered that fits your interests! For more information on the HOSA Scholarship program, please visit <http://www.hosa.org/scholarships>.

Competitor Must Provide

- #2 lead pencils with eraser
- [Photo ID](#)
- Watch with second hand (optional-Round Two only)

FOR SPECIFICS ON EVENT MANAGEMENT SEE [MANAGING COMPETITIVE EVENTS](#)

Required Personnel

- One Event Manager
- One Judge Manager (JM) to provide quality assurance for the event by ensuring that the guidelines are followed and all event documents are complete.
- One Section Leader per section
- Two - three judges per section
- Preparation room attendant (One per preparation room)
- One-two event assistants per section
- One time-keeper per section

Facilities, Equipment and Materials (Per Section)

Round One: Written Test (Reference: All resources)

- Testing room with tables/chairs for the number of registered competitors (see [HOSA Room Set](#))
- List of competitors for check-in
- One pre-numbered test per competitor
- Scantron/answer forms- one copy per competitor
- Evaluation forms - competitor and event personnel
- #2 lead pencils with eraser to complete evaluations (event personnel)

Round Two: Presentation Round

- Preparation room with table and chairs – If there are multiple sections, more than one team may prepare at the same time in the preparation room. (see [HOSA Room Set](#))
- Presentation room(s) (see [HOSA Room Set](#))
- List of competitors for check-in
- Copy of secret problem - one for each team member and judge
- Stopwatch/Timer (for prep room(s) and presentation rooms)
- Index cards
- Flip chart paper – as many pages as needed per team
- Flip chart pad and/or easel in preparation and presentation room(s)
- Colored Markers for prep room(s)
- Masking or blue painters tape (if self-adhesive flip chart paper/easel is not used)
- Flash card for 1 minute remaining (for presentation rooms)

- Rating sheets – one per judge per team
- Evaluation Forms – competitor, judge, and personnel
- #2 lead pencils with eraser (judges & evaluations)
- Copy of guidelines for judges
- Hand sanitizer (alcohol based handrub)

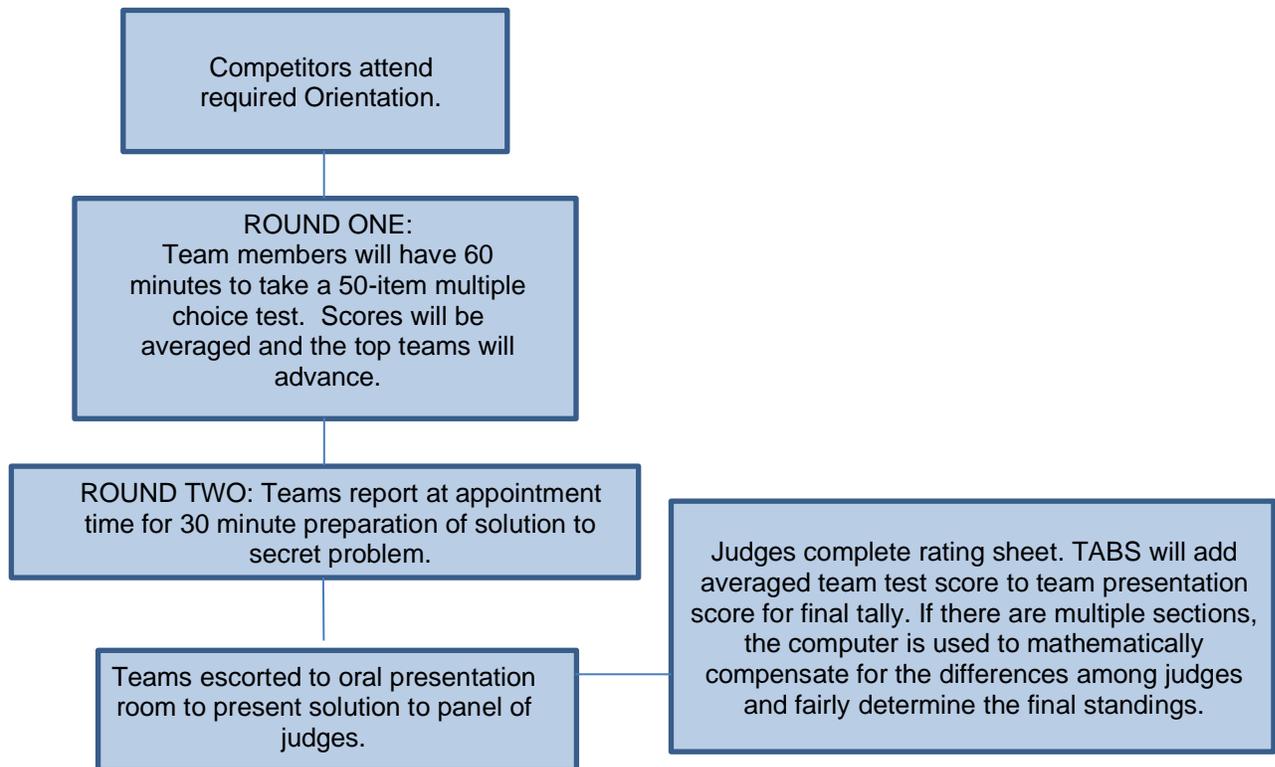
Sample Round One Test Questions

1. According to John Scully, the former chairman of Apple Computer, a key ingredient of successful teams is:
 - A. creativity.
 - B. viability.
 - C. reasonability.
 - D. profitability.

2. What is the purpose of the outcomes window when considering solutions?
 - A. Determine how much it will cost to implement each solution.
 - B. Determine if all solutions have been considered.
 - C. List positive and negative consequences of a decision.
 - D. Test to determine if other people will accept or reject the solutions.

3. The key to creatively generating associations and connections between dissimilar subjects is called _____.
 - A. balancing concepts
 - B. conceptual blending
 - C. disassociation
 - D. intermingling ideas

Event Flow Chart



CREATIVE PROBLEM SOLVING ROUND TWO: Judge's Rating Sheet

Section # _____ Judge's Signature _____
 Team # _____ Division: SS _____ PS/C _____

A. Presentation Content	Excellent 15 points	Good 12 points	Average 9 points	Fair 6 points	Poor 3 points	JUDGE SCORE
1. Understanding of problem/health issue	Demonstrates clear evidence of a deep, insightful understanding of the problem or health issue.	Shows a solid grasp or understanding of the problem or health issue.	Demonstrates an average understanding of the problem or health issue. Judges left with a few questions	Shows a basic understanding of the problem or health issue. Judges left with more questions than answers.	Team is not able to demonstrate an understanding of the problem or health issue.	
2. An imaginative and innovative approach is used to solve the problem	The team provided creative, imaginative solution(s) that were highly innovative and thoughtful.	The solution was unique and offered a fresh approach to solving the problem. Missing the "wow" factor though.	The solution to the problem was adequately imaginative. Would like to see more innovation in the solution.	Solutions provided were unoriginal and little imagination was included in the presentation.	No evidence of imagination was used to solve the problem.	
3. Explanation of solution	Clear and concise explanation of the solution in a logical, well-constructed presentation.	The explanation of the solution was mostly clear and logical.	An average explanation of the solution was provided. Some aspects seem to be presented out of sequence.	The explanation of the solution did not flow and was hard to follow.	The explanation did not provide a logical solution and was fragmented.	
4. Applies previous knowledge and experience to current problem	Clear, thorough connection to prior knowledge and experiences were used to enhance the solution to the current problem.	Good examples of previous knowledge and experiences were applied to the solution of the current problem.	Some demonstration of prior knowledge and experiences were applied to the solution of the current problem.	Prior knowledge and experiences were not clearly demonstrated in correlation to the current problem.	No prior knowledge or experiences were connected to the current problem.	
	Excellent 10 points	Good 8 points	Average 6 points	Fair 4 points	Poor 2 points	JUDGE SCORE
5. Explanation of solution is financially sound	The solution is realistic and financially sound. The resources required to fund this solution are thoughtful and concise.	The solution appears to be financially sound. Slight questions arise on the feasibility of the budget and ability to complete the task in a fiscally responsible manner.	The solution may require resources that are outside the budget constraints of this project. Careful consideration must be made to move forward with this project.	The solution provides questionable budget requirements and would require further attention to detail.	The solution is outside of budget constraints and is not recommended to move forward as presented.	
6. Use of the information provided in the secret topic.	The presentation offered clear and effective use of the information provided in the secret topic.	The information on the secret topic was mostly effective in the presentation but could have been clearer.	The presentation provided an average use of the information provided in the secret topic.	The presentation used a small amount of the information provided to teams on the secret topic.	The team did not include information provided on the secret topic.	

B. Presentation Delivery	Excellent 5 points	Good 4 points	Average 3 points	Fair 2 points	Poor 1 points	JUDGE SCORE
1. Voice Pitch, tempo, volume, quality	Each speaker's voice was loud enough to hear. The speakers varied rate & volume to enhance the speech. Appropriate pausing was employed.	Each speaker spoke loudly and clearly enough to be understood. The speakers varied rate OR volume to enhance the speech. Pauses were attempted.	Each speaker could be heard most of the time. The speakers attempted to use some variety in vocal quality, but not always successfully.	Most of the speaker's voices were low. Judges have difficulty hearing the presentation.	Judge had difficulty hearing and/or understanding much of the speech due to low volume. Little variety in rate or volume.	
2. Stage Presence Poise, posture, eye contact, and enthusiasm	Movements & gestures were purposeful and enhanced the delivery of the speech and did not distract. Body language reflects comfort interacting with audience. Facial expressions and body language consistently generated a strong interest and enthusiasm for the topic.	The speakers maintained adequate posture and non-distracting movement during the speech. Some gestures were used. Facial expressions and body language sometimes generated an interest and enthusiasm for the topic.	Stiff or unnatural use of nonverbal behaviors. Body language reflects some discomfort interacting with audience. Limited use of gestures to reinforce verbal message. Facial expressions and body language are used to try to generate enthusiasm but seem somewhat forced.	Most of the speaker's posture, body language, and facial expressions indicated a lack of enthusiasm for the topic. Movements were distracting.	No attempt was made to use body movement or gestures to enhance the message. No interest or enthusiasm for the topic came through in presentation.	
3. Diction*, Pronunciation** & Grammar	Delivery emphasizes and enhances message. Clear enunciation and pronunciation. No vocal fillers (ex: "ahs," "uh/ums," or "you-knows"). Tone heightened interest and complemented the verbal message.	Delivery helps to enhance message. Clear enunciation and pronunciation. Minimal vocal fillers (ex: "ahs," "uh/ums," or "you-knows"). Tone complemented the verbal message	Delivery adequate. Enunciation and pronunciation suitable. Noticeable verbal fillers (ex: "ahs," "uh/ums," or "you-knows") present. Tone seemed inconsistent at times.	Delivery quality minimal. Regular verbal fillers (ex: "ahs," "uh/ums," or "you-knows") present. Delivery problems cause disruption to message.	Many distracting errors in pronunciation and/or articulation. Monotone or inappropriate variation of vocal characteristics. Inconsistent with verbal message.	
4. Team Participation	Excellent example of shared collaboration in the presentation of the project. Each team member spoke and carried equal parts of the project presentation.	N/A	The team worked together relatively well. Some team members spoke more than others.	N/A	One team member dominated the presentation.	
Total Points (100):						

*Definition of Diction – Choice of words especially with regard to correctness, clearness, and effectiveness.

**Definition of Pronunciation – Act or manner of uttering officially