



Creative Problem Solving

New for 2017-2018

Editorial updates and language clarifications have been made. 101 Creative Problem Solving Techniques by Higgins has been replaced with Strategies for Creative Problem Solving by Folger. The test plan has also been updated. Markers will NOT be allowed in the presentation room.

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 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. Teams must be composed of three (3) or four (4) members.
 4. [Round One Test Instructions](#): Each team will be evaluated in Round One by a fifty (50) item multiple choice written test. Competitors will be given sixty (60) minutes to complete the test, which will be administered during the event orientation session. **No proxies are allowed for this event.** 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.

Round I: Written Test Plan

Creative Thinking	30%
Problem Solving Strategies & Skills	10%
Problem Identification	10%
Clarification of Problems/Developing Objectives	15%

Examining Constraints/Developing Alternatives	15%
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. All official references are used in the development of the written test.
 - [Adair, John. *Decision Making & Problem Solving \(Creating Success\)*. Kogan Page. Latest edition.](#)
 - [Folger, HS, LeBlanc, S., Rizzo, B. *Strategies for Creative Problem Solving*. Prentice Hall. Latest edition.](#)
 - [Michalko, Michael. *Creative Thinking: Putting Your Imagination to Work*. New World Library. Latest edition.](#)
6. The Round Two 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.
7. Resources will be provided to teams for use during their 30 minute preparation time, if applicable. No other printed materials may be brought into the preparation room. Competitors will be provided with index cards for taking notes and for use during their oral presentation. Teams will also be provided with flip chart paper and markers for use during their preparation only.
8. The section leader will announce when teams have one (1) minute remaining in the preparation room by saying, "You have one minute remaining. Please conclude your preparation, gather your materials, and prepare to be escorted to the presentation room."
9. At the conclusion of the 30 minute preparation time, teams will be escorted to another room for their oral presentation. Teams may take the index cards and the flip chart paper they prepared during the preparation time. The flip chart paper and index cards are the only items to be used during the oral presentation.
10. 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.
11. In case of a tie, the highest averaged test score will be used to determine the rank.

Competitor Must Provide

- Event guidelines – one per team (orientation)
- #2 lead pencils with eraser
- Watch with second hand (optional)

Required Personnel

- One Event Manager
- One QA 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 and prep room

Facilities, Equipment and Materials (Per Section)

- Testing room with tables/chairs; or schoolroom desks/chairs for total number of competitors
- Test packets which are pre-numbered and Scantron answer forms
- 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.
- Presentation room(s)
- Competitor list by alpha/team for check-in, EM, QA, Section Leaders & Timekeepers
- Copy of secret problem - one for each team member and the judges
- Stopwatch/Timer (for prep room(s) and presentation rooms)
- Calculators, note pads, and pencils for judges
- 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 is not used)
- Flash card for 1 minute remaining (for prep and presentation rooms)
- Rating sheets – one per judge per team
- Evaluation Forms – competitor, judge, and personnel
- #2 lead pencils with eraser to complete evaluations
- Copy of guidelines for judges

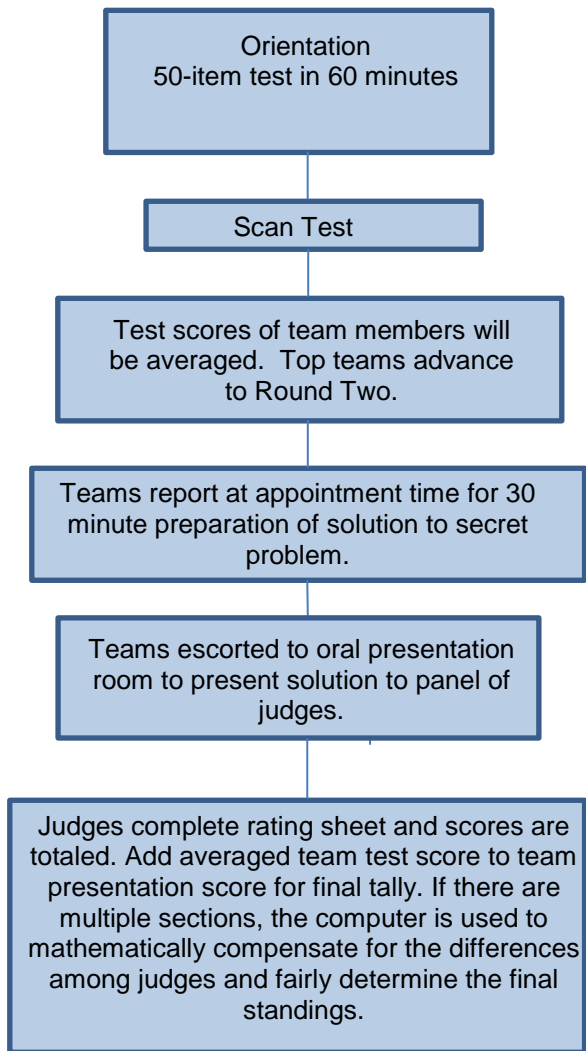
Sample Round One Test Questions

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

2. The purpose of the 'outcomes window' when considering solutions is to:
 - 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 others to determine if they 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 JUDGE'S RATING SHEET

Section # _____

Division: _____ SS _____ PS/Collegiate

Team # _____

Judge's Signature _____

Items Evaluated	Superior	Points Possible					Points Awarded
		-----	-----	-----	-----	Poor	
A. Understanding of problem/health issue.	10	8	6	4	2	0	
B. Effectively applies previous knowledge and experience to current problem.	10	8	6	4	2	0	
C. Solution was clear and logical.	15	12	9	6	3	0	
D. Solution was financially sound and workable.	10	8	6	4	2	0	
E. Solution showed good use of research/expert data.	10	8	6	4	2	0	
F. An imaginative and innovative approach was used to solve the problem.	15	12	9	6	3	0	
G. Evidence of teamwork in reaching a solution.	10	8	6	4	2	0	
H. Organization, delivery and quality of oral presentation.	10	8	6	4	2	0	
I. Total group involvement in presentation of solution.	10	8	6	4	2	0	
TOTAL POINTS	100	----- 0					