



## **Future Problem Solving of Virginia 2017-2018 Rules of the Competition**

### **Practice Problems**

The first two problems (called Practice Problem 1 and Practice Problem 2) give teams an opportunity to informally compete with other teams throughout Virginia. Each booklet is scored and ranked by an official state evaluator. Coaches are encouraged to follow qualifying problem conditions but may suspend rules at their own discretion. Results of the practice problems are returned to students and published. Although they play no part in selecting teams for participation in the state bowl, they provide valuable feedback. Only booklets of registered teams and individuals will be scored.

The topic for Practice Problem 1 is **Spread of Infectious Disease**. The topic for Practice Problem 2 is **Toxic Materials**.

On practice problem one, the workload requirements are reduced. Teams should submit booklets with eight challenges, one underlying problem, eight solution ideas, three criteria for evaluation, five solutions on the grid, and an action plan. If more is written in the booklet, only the components noted above will be evaluated. Practice Problems and Qualifying Problem team and individual work must be completed in competitors' handwriting on the single sided 14 page (team)/10 page (individual) GIPS booklets.

### **Qualifying Problem Protocols**

The topic of the Qualifying Problem will be **Disorders**.

Booklets must be completed in one carefully timed session lasting no more than two hours.

Only four students may participate on a team submitting a booklet for competitive consideration on the qualifying problem. No substitutions may occur after the competition has begun. The grade level of the team member in the highest grade determines the competitive division of the booklet. Divisions are as follows:

Junior: grades 4 - 6;

Middle: grades 7 - 9;

Senior: grades 10 -12;

Adult: post high school

Sealed packages containing the Qualifying Problem future scenes are not to be opened prior to the problem solving session, either by team members or coaches. Each package contains five copies of the future scene. When the package is opened, one copy should be passed to each team member. Timing of the problem solving session must begin when students open their sealed packages; reading of the future scene must be included in the two-hour time limit.

No written materials relating to the topic of 3D Printing or the Future Problem Solving process may be used by students or displayed in the room where booklets are being prepared. All reference materials, except dictionaries and thesauruses, are also prohibited.

Participants may not use electronic devices (including calculators, spell checkers, electronic thesauruses, and computers). Exceptions for special circumstances must be requested in advance.

Coaches may not be present in the same room as their team during the problem solving session. Other adults may supervise students in the room as long as interaction is limited to issues of supervision and security. Coaches may monitor student behavior outside problem solving rooms, in hallways, or adjoining rooms. If a coach must enter the room to attend to an emergency or disruption, extra care must be taken to avoid any discussion of Future Problem Solving. Should an emergency occur causing an interruption in the problem solving session, additional time corresponding to the length of the interruption should be extended to affected teams. Coaches are responsible for insuring that all team participants are familiar with the rules of the competition. The coach must also sign the statement affirming adherence to the rules on the qualifying problem cover sheet before an entry can be certified for competitive ranking.

If a team member violates a rule of the Qualifying Problem, the coach must inform the state director before submitting the booklet. The Rules Committee will handle all charges of rules violations and interpret the rules of the competition. This committee may assess penalties, up to and including disqualification, as they deem appropriate. Coaches may disqualify one of their own teams for any behavior he/she considers inappropriate.

All entries must be postmarked no later than Saturday, February 3, 2017. Booklets postmarked or hand delivered after this deadline will not be competitively evaluated.

An officially embossed cover sheet must accompany each Qualifying Problem entry. A Qualifying Problem entry consists of the original Team/Individual booklet with accompanying embossed coversheet and one legible copy of booklet and coversheet. Qualifying Problem submissions missing any of these required items will be assessed a \$15 production fee to be paid prior to the return of QP evaluation and State Bowl participation.

### **Qualifying for the State Bowl**

State bowl bids are based solely on results of Qualifying Problem booklets.

All booklets are evaluated and rank ordered in the first round. Booklets receiving a rank of one or two are re-evaluated in the second round. Each Round Two booklet is assigned a TRS (total rank sum) which is the sum of a team's ranks after successive rounds of evaluation. The TRS range is 2-8 (for example:  $1+1=2$ ,  $2+1=3$ ,  $2+6=8$ ).

District bids are filled first, with the best team(s) in each geographic district invited, up to the guaranteed allocation per grade level division.

If a clear winner cannot be determined after round two, booklets go to a third round of head-to-head competition among teams within a particular district. After district bids are determined, all remaining second round teams are placed in the at-large pool.

Each division's allocation of at-large bids will be filled according to the second round TRS. At-large slots are filled according to quality regardless of district. Some situations may require an additional third round run-off. After each division's at-large bid allocations are filled, stand-by teams may be selected from the highest-ranking teams remaining in the at-large pools.

At large bid opportunities for yearlong individual competitors will be determined by the number of entries submitted in each division, and the quality of the submissions as determined by the Evaluation Director.

Coaches may purchase memberships until Friday, January 19, 2017. Teams or yearlong individuals registering after the registration deadline will be assessed a late fee.

Each evaluator is responsible for extrapolating and adding sub-scores, total scores and ranks. All qualifying problem scoresheets will be re-checked for mathematical accuracy. Any error in calculation which could affect a team's qualification for the State Bowl should be immediately reported to the state director. Future Problem Solving of Virginia reserves the right to adjust the number of state bowl teams to include teams who lost a bid due to an error.

A team must be in good standing with the Virginia program to participate in the VAFPS state bowl.

## Team Qualifying Problem Terms

**At-large bids**—state bowl invitations to the best teams that did not qualify for a district bid, based on a predetermined allocation of at-large bids. The at-large pool is composed only of second round teams who did not win district bids.

**Bid**—an invitation to the state bowl.

**Geographic district**—area in which all teams participating in Future Problem Solving, representing either public or independent schools or composed or sponsored in any other way, are assigned for the purpose of competing for district bids. Geographic districts are determined by the public school boundary of the locality.

**District bid**—state bowl invitation that is automatically extended to the highest-ranking team(s) in a particular geographic district, based on an established allocation policy. The 2017-2018 formula is one bid for each geographic district in each grade-level division in which the geographic district participates and one bid for each additional ten registered teams.

**TRS (total rank sum)**—sum of a team's ranks after successive evaluation rounds.

**Stand-by team**—selected teams remaining in the at-large pools after bid allocation are filled. Selection will be based solely on booklet quality. If a division's at-large pool is empty, stand-by status will be awarded to the highest-ranking teams regardless of division. When a bid receiving team is unable to accept a state bowl bid, an invitation to participate in the competition will be extended to highest-ranking stand-by team.

**Division**—competitive level of a team, based on grade level. (Junior: grades 4-6, Middle: grades 7-9, Senior: grades 10-12, Adult: post high school) The division of a team is based on the level of the student in the highest grade.

**Host bid**—additional bid extended to state bowl host school. The host bid will be selected based on booklet quality after the district's bid allocation is filled.

## The Individual Competition

Individuals follow team competition rules in the booklet preparation and competition for a state bowl invitation. An Individual completes all six steps when preparing a booklet.

Practice Problem 1 is an abbreviated booklet that requires only four challenges, one underlying problem, four solution ideas, three criteria for evaluation, three solutions on the grid, and an action plan. If more is written in the booklet, only the components noted above will be evaluated.

For Practice Problem 2 and the Qualifying Problem competitors generate eight challenges in step one and eight solution ideas in step three. In step five, the individual applies criteria to four solution ideas to determine the best solution for his/her action plan.

The number of state bowl invitations will be determined by division registrations and the quality of submissions. Slots are filled according to quality regardless of district.

During the state bowl competition, each individual will prepare a booklet using the official state bowl future scene. Individuals will complete all steps. The only difference between team and individual booklets will be the required number of challenges and solution ideas. (Individuals only write eight challenges, eight solution ideas, and apply criteria to four solution ideas.)

Ties, after two rounds of competition, will be broken through paired comparison evaluation.

Individuals must take part in the presentation competition with participants from their geographic district in the appropriate competitive division to be eligible for individual competition awards.

## **Presentation of the Action Plan Competition**

Guidelines and rules for the Presentation of the Action Plan and scoring guidelines for Virginia participants will be posted on the program website in advance of the Virginia state bowl. Scoring will follow the 2017-18 International Conference guidelines.

The presentation competition is scored independently of the team competition. However, in order to be considered for a finalist prize in the team competition, a team must have participated in the Action Plan competition. Adult teams are not required to present a presentation of their action plan at the State Bowl.

## **State Bowl Protocols**

The topic of the State Bowl problem will be **Cloud Storage**.

Sealed packages containing copies of the state bowl future scene will be distributed at the state bowl. Each team will be assigned a location for completing their booklet. Coaches or designated adults may assist participants in finding rooms, and are then required to leave the competition area. The problem solving session begins when students are directed to open their sealed packages; reading of the future scene is included in the two-hour time limit placed on the booklet competition at Future Problem Solving state bowls. Each team must turn in their completed booklets to a designated official no later than three minutes after the call to stop writing is announced.

No written materials relating to the state bowl topic Identity Theft or the Future Problem Solving process may be used by students during the competitive session. All reference materials, except dictionaries and thesauruses, are also prohibited.

No electronic devices (including calculators, spell checkers, electronic thesauruses, and computers) may be used by participants. The coach must request exceptions for special circumstances in advance.

Should an emergency occur causing an interruption in the competitive session, team members should immediately report the problem to their hall monitor. The State Bowl Rules Committee may choose to provide additional time to affected teams if circumstances warrant.

Only four students may participate on a team submitting a booklet for competitive consideration. No substitutions may occur after the competition has begun. The grade level of the team member in the highest grade determines the competitive division of the booklet. Grade level divisions are as follows: Junior: grades 4 - 6; Middle: grades 7 - 9; Senior: grades 10 -12; Adult: post high school.

Coaches are responsible for insuring that all team participants are familiar with the rules of the competition. If a team member is found violating a rule of the state bowl, the matter will be adjudicated by the State Bowl Rules Committee.

The Evaluation Director will supervise State Bowl evaluation.

The State Bowl Certification Committee will monitor state bowl evaluation procedures. Prior to announcement of results at the awards ceremony, the committee will certify that all established procedures were followed. The certified decision of the evaluators, announced at the state bowl, is final.

If an error is discovered that would have affected the first and second place rankings, the Executive Board may submit the names of affected competitors as alternates to the International Conference.

A team must be in good standing with the Virginia program to participate in the International Conference.

## **Community Problem Solving (CmPS)**

Virginia follows international evaluation guidelines to select CmPS project winners prior to the state bowl competition. For rules governing student projects eligible for international competition refer to guidelines sent to each participating coach.

All teams and individuals that submit projects for the competition are invited to participate in the CmPS Fair at the Virginia State Bowl for 2017-2018. Awards are presented for winning projects. CmPS team participation at the bowl is limited to fifteen students and five adults. Additionally, first place CmPS projects meeting guidelines set forth by the rules governing the international program in each division win the right to represent Virginia at the FPSP International Conference.

### **Scenario Writing**

In order to comply with the International calendar, Virginia's winners in each division are declared and submitted for International consideration in February. For rules governing scenario entries, refer to guidelines sent to each registered coach.

All place winners are recognized and receive awards. First place winners in each division are encouraged to read their winning scenario at the state bowl. Additionally, writers of first place scenarios in each division win the right to represent Virginia at the FPSP International Conference.

### **Scenario Performance**

Scenario Performance is a year-long storytelling program. Storytellers select one topic from either the 2017 International Conference topic, one 2017-2018 practice problem or qualifying problem topics that interests them and creates a story that is not written in full, but told in a more spontaneous manner. Entries are submitted following guidelines provided in materials provided to registered coaches.

The number of state bowl invitations will be determined by division registrations and the quality of submissions. Slots are filled according to quality regardless of district. Invited Scenario Performance competitors will research the State Bowl topic, Cloud Storage, and prepare a 4 - 5 minute story to entertain an audience. The performance will include voice and hand movements only; props and physical "acting" and/or background and special effects are not permitted. Based on the quality of their performances, first place scenario performers in each division win the right to represent Virginia at the FPSP International Conference.

### **Electronic Sharing**

Coaches and teams are cautioned not to share, in any electronic form, information regarding the future scenes or completed booklets during the competition year, since Affiliate Programs do not all share the same competition dates. All materials produced by Future Problem Solving Program International contain publication warnings. These warnings are to be taken very seriously. Teams, individuals or coaches publicly posting (websites, Facebook, Instagram, etc.) will be responsible for paying the penalty assigned by Future Problem Solving Program International for this publication violation.

Additionally, coaches are responsible for advising parents and guardians not to publicly post video they may take of teams competing in Presentation of Action Plan. Similarly, teams with Presentation of Action Plan posted skits, in part or whole, will incur a financial penalty.