“The most basic skill that can be taught in today’s schools is problem solving, especially skills in solving future problems.” Dr. E. Paul Torrance, 1984
## FUTURE PROBLEM SOLVING SEASON

<table>
<thead>
<tr>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
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<tbody>
<tr>
<td></td>
<td>~ Research topic #1.</td>
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<td>~ Research topic #2.</td>
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<td>December</td>
<td>January</td>
<td>February</td>
<td>March</td>
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<td>~ Complete practice packet #2.</td>
<td>~ Refine FPS process based on practice packet evaluation.</td>
<td>~ Attend Regional Bowl to compete against other area teams.</td>
<td>~ Winners of Regional Bowl are announced. State Bowl qualifiers research topic #4 to prepare for competition.</td>
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<td>~ Research topic #3 to prepare for Regional Bowl.</td>
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<td>April</td>
<td>May</td>
<td>June</td>
<td>July</td>
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<tr>
<td>~ Iowa Future Problem Solving State Bowl. Qualifying teams participate in this 2-day event.</td>
<td>~ FPS State Bowl champions prepare for International Conference, a four-day event at a college campus.</td>
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<td>~ FPS International Conference.</td>
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RESEARCH
PREPARATION for COMPLETING a FPS PACKET

Future Problem Solving coaches and students know the general topic of each practice and competitive packet ahead of time. For competitive packets, the specific content of the Future Scene is not revealed until the two-hour competition begins. Students must decide which research applies to the Future Scene situation.

The Future Problem Solving Program International publishes *Readings, Research, and Resources* each year. It contains terms, an overview, and article summaries related to each of the year’s topics.

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STEP 1: BRAINSTORM POSSIBLE PROBLEMS / CHALLENGES

A. Brainstorm possible problems/challenges that may occur as a result of facts from the Future Scene.

B. For clarity, write possible problems/challenges in complete form. Students should include
   1. HOW the possible problem is related to facts in the Future Scene.
   2. WHAT problem may occur.
   3. WHY it may be a problem.

C. Use terms of possibility such as *may, might, or could*. Possible problems that use research, creative thinking, and futuristic thinking are encouraged.
FPS CATEGORY LIST

1. ARTS & AESTHETICS  11. LAW & JUSTICE
2. BASIC NEEDS        12. ORGANIZATION
3. BUSINESS & COMMERCE 13. PHYSICAL HEALTH
4. COMMUNICATION      14. PSYCHOLOGICAL HEALTH
5. DEFENSE            15. RECREATION
6. ECONOMICS          16. SAFETY
7. EDUCATION          17. SOCIAL RELATIONSHIPS
8. ENVIRONMENT        18. TECHNOLOGY
9. ETHICS & RELIGION  19. TRANSPORATION
10. GOVERNMENT & POLITICS  20. MISCELLANEOUS
STEP 2: IDENTIFY an UNDERLYING PROBLEM

A. The team selects a single, important problem from Step 1 to solve.

B. Include the following parts in the Underlying Problem:

   * **Condition Statement**: State Future Scene facts that show why the *Key Verb Phrase* and *Purpose* need to be done.

   * **Stem**: Start the *Key Verb Phrase* with one of these stems “How might we …” or “In what ways might we …”

   * **Key Verb Phrase**: Include one verb phrase that mandates what the team will do in Step 3.

   * **Purpose**: The *Purpose* is the goal of solving the *Key Verb Phrase*. It starts “… so that…”

   * **Future Scene Parameters**: Add the *time, place, and topic* of the Future Scene.

Example: Because of the many dangers facing the current and future inhabitants of the undersea colony of Sea Star in 2049 (*condition statement with topic, place and time*), how might we increase the level of safety for the citizens of Sea Star (*key verb phrase*) so that qualified people will continue to be willing to carry on the important medical research done there? (*purpose*)
STEP 3: BRAINSTORM SOLUTION IDEAS

A. Brainstorm solution ideas to solve the Key Verb Phrase and Purpose from the Underlying Problem in Step 2.

B. An elaborated solution includes at least three of these:
   1. WHO is in charge of the solution.
   2. WHAT will be done.
   3. WHY the solution will be done.
   4. HOW the solution will work.

C. State what will be done. Solutions that use research, creative thinking, and futuristic thinking are encouraged.

STEP 4: SELECT CRITERIA to EVALUATE SOLUTIONS

A. Write the criteria in correct form.
   1. Single Dimension: Focus on one criterion at a time.
   2. Include a Superlative: In order to rank solutions, include a superlative such as most, best, greatest, least, safest, etc.
   3. Desired Direction: Be positive. Each criterion should ask a desired outcome: most humane, for example.

B. Criteria can be generic, modified, or advanced. It is preferable to use criteria that are specific to the Future Scene and the team’s Underlying Problem.
STEP 5: RANK SOLUTIONS using the TEAM’S CRITERIA

The team chooses its 8 most promising solution ideas to list on the FPS grid. Use the criterion to rank each solution from 8 (best) to 1 (worst) vertically. After ranking each criterion vertically, add the numbers horizontally.

<table>
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<tr>
<th>Step 3 Sol’n #</th>
<th>Solution Idea</th>
<th>Criteria 1</th>
<th>2</th>
<th>3</th>
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STEP 6: DEVELOP an ACTION PLAN of the TEAM’S HIGHEST-RANKING SOLUTION

A. The highest-ranking solution becomes the Action Plan.
B. Elaborate the best solution with details such as who is involved, what will be done to implement the solution, why the solution is being done, and an obstacle that may occur.