

Florida FPSP Scoring Guidelines For Training

GUIDELINES FOR EVALUATION
2008-09 Team and Individual Problem Solving
Florida Future Problem Solving Program

PURPOSE OF EVALUATION

The primary purpose of Future Problem Solving (FPS) evaluation is to provide coaches and students with feedback that allows them to develop and improve their problem solving skills. Team problem solving is performance-based, and evaluation is authentic assessment of the team's booklet. Because there is no single "right" answer, FPS employs a variety of strategies to review student work. Specific criteria evaluate performance in each step. Skill improvement remains the most important aspect of evaluation; however, FPS also involves competition and competition scoring must be impartial. A secondary purpose of evaluation is to provide a fair and reliable method for comparing teams in a Future Problem Solving competition.

ATTITUDE

It is essential that evaluators maintain a positive attitude throughout the evaluation process. The central purpose of the Future Problem Solving Program International is to assist students in acquiring better thinking, communicating, and problem solving skills. Evaluation is always done with this thought in mind. **The better evaluators offer constructive feedback and make students want to improve their problem solving skills.** Effective feedback praises students for what they did well and encourages them to use their improved skills to tackle the next problem. **Regardless of the quality of the student effort, critical feedback may discourage a team and keep them from improving. This defeats the purpose of the program.**

It is important for evaluators not to confuse their personal expectations and skill level with that of the teams represented in an evaluation sample. Do not confuse the sophistication of the task with that of the students. Consider the age/division of the team and the level of competition (practice or competition) in constructing positive feedback. Once you see an exceptional booklet, it may be easy to expect the same quality from all booklets. Remember, the completion of an FPS booklet is, by itself, a major accomplishment, possibly more demanding than anything else the students have done as part of their educational experience. Students will delight, frustrate, and eventually reward the demanding task of evaluation.

The ability to consistently provide positive and constructive feedback is the goal to which all evaluators must aspire.

PREPARATION

Before evaluating booklets for any topic, evaluators should have knowledge of the topic. The students put tremendous effort into their work. They can really lose respect for anything you say — no matter how valid it is — if you do not show a basic understanding of the material. Reading the topic chapter in Readings, Research, and Resources, or several articles from the bibliography, is a good way to gain topic knowledge necessary for evaluation.

Reading, discussing, or contemplating the ideas presented in the future scene and in the topic evaluation notes help bring a high level of consistency to FPSP evaluation.

Evaluation is a highly rewarding experience. Evaluators expend considerable mental energy during a day of evaluation; however, they are always re-energized and inspired by the ideas of creative students. Evaluation is the lifeblood of the Future Problem Solving Program, and evaluators should take great pride in knowing their evaluation makes a significance contribution to FPSP and the students who participate.

SCORESHEET COMPONENTS

Three elements require evaluator attention on the Future Problem Solving Program score sheet:

- *Identification* – An evaluator fills in the identification portion at the top of the score sheet before evaluating a booklet.
- *Feedback* – Space is provided on the score sheet for both general and specific feedback. **Feedback is the most important aspect of the evaluation.**
- *Scoring* – Use the descriptors on the score sheet for each criterion to determine the numerical score.

FEEDBACK

Feedback helps a team understand its strengths and weaknesses and motivates them to improve their skills. Feedback is the most important aspect of the evaluation and is given for each step of the FPS booklet. Feedback enables students to focus their learning process and allows the coach to adapt problem solving instruction to meet the needs of the students.

Comments, both general in nature and specific to a single response, are written on the score sheet.

Using a strategy devised by Edward de Bono (1974) improves the quality of feedback. Edward de Bono suggests that attention be given to the following four areas when responding to students about their problem solving: praise, clarification, criticism and amplification.

Praise: Positive acknowledgement of a team's effort, creativity, and major strengths

- Reinforces positive aspects of a team's performance
- Establishes a good working relationship between the evaluator and problem solvers
- Rewards the team for facing a problem and developing a solution idea
- Reminds the team, even if their score is not high, they did some things right and encourages the team to improve

Clarification: Evaluator comments asking teams to clarify ideas

- Points out statements that may be confusing or unclear and offers suggestions for improvement
- Encourages teams to improve the clarity and elaboration of their work
- Promotes the development of effective communication skills

Criticism: Evaluator suggestions for areas needing improvement

- Specific constructive comments help teams build their skills
- Gives teams examples of ways to use their ideas, research, or the problem solving process more effectively
- Encourages teams to learn from their work to become better problem solvers

Amplification: *Evaluator comments that help students expand their ideas, push their thinking even further, and improve the quality of their problem solving*

- *Points out gaps in information or logic*
- *Helps teams improve their planning for an FPS booklet*
- *Identifies other ideas the team might consider*
- *Prompts teams to consider the possible consequences of their ideas*
- *Lists positive, constructive ideas for improvement*

TYPES OF CRITERIA

The FPSP criteria measure student skills in the following three categories:

- **Content:** These criteria measure the *quality of the content* in students' work. Content-oriented criteria evaluate the *merit of the ideas*.
- **Structure:** Structure-oriented criteria assess how effectively students fit their work into a prescribed format. This measures a team's mechanics in completing their booklet.
- **Process:** These criteria judge how well students use the FPS model.

STEP 1: POSSIBLE CHALLENGES

Objective: To identify all challenges according to the directive of the future scene. Challenges are defined as issues, concerns, or problems that need addressing.

- Count all possible challenges that could occur within the boundaries of the future scene including:
 - Challenges that caused the future scene (cause)
 - Challenges that may occur because of the future scene (effect)
- To receive credit, a statement must be complete enough to convince you that it truly is a challenge of the future scene.

Fluency

- *The highest scores indicate that most of the challenges identified show a clear understanding of the future scene. Lower scores will appear when the students misunderstand the future scene OR have unclear OR repetitive challenges.*

Y	Yes – Those challenges listed which have a strong possibility of occurring in the future scene. These are challenges that can be seen as logical cause or effect of the future scene .
“√”	After each <u>solid</u> “Y” to distinguish from challenges of minor concern or somewhat insignificant challenges.
P	Perhaps – (1) Those challenges listed which have <u>some possibility of existing or occurring</u> if the future scene were to occur, but (2) those challenges are worded poorly or ambiguously and would have been scored YES had they been stated more clearly. (Unclear)
W	Why – (1) Those challenges that do not appear to have a clear connection to the future scene. (2) Those statements which do not identify a challenge
S	Solution – Those responses listed which represent how to solve challenges of the future scene.
D	Duplicate – Those challenges listed that are too contextually similar to another challenge – previously scored as YES – to be given additional credit <i>Evaluators should not confuse duplicate ideas with duplicate categories – it is acceptable to list several ideas in the same category.</i>

➤ **Count the number of “Y’s” and assign points according to the provided scale.**



Each challenge given a “Y” must be evaluated across the line in the other areas.

Clarity

- All challenges marked “Y” should either receive a “√” or “-“ in space provided.
- Each statement that is clearly stated & directed at the future scene should receive a check.
- Evaluator should work up the provided scale until reaching correct statement that identifies the work in booklet.

10	Little or no room for improvement – well written & tie to the future scene is obvious
9	Very well written; many challenges marked “√” & link to future scene is clearly defined
7 – 8	Well written; many challenges marked “Y” & link to future scene was identifiable in most challenges.
5 - 6	Written in average range; an average amount of challenges received “Y” & link was clear in those given “Y”
5	Highest score given if “may” or “might” or “could” was not used
4	Writing needs improvement; booklet did not receive many “Y’s” because challenge statements were not clearly written and/or not clearly tied to the future scene

- **Enter score of 1 – 10**
- **While “√’s” are not totaled for scoring, students can easily see which statements were considered clearly written & tied to future scene.**
- **Score of “4” equals 40%; no need for lower score.**

Flexibility

- The more varied the ways the future scene is approached, the more complete a picture of the whole situation one can get.
- The higher score is given if the challenges listed address multiple categories.

Category Number/ Name	Categorize the “Y” responses on the team’s booklet (use the category list provided on the evaluation sheet).
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- **Identify category(s) for each accepted challenge (Y).**
- **Circle only one category for each “Y”, attempting to use as many categories as possible.**
- **Count 1 point for each new category until you reach the maximum of 10 points. DO NOT AWARD MORE THAN 10 POINTS.**

Originality – Rewards the identification of a rare, high-quality challenge that received a ‘Yes’ in fluency.

- Only award Originality points for new/or different thoughts on the future scene.
- Any response found infrequently at that age/grade level and considered of high quality is scored original.
- Do NOT award originality so freely that the score is warped.

☺	New or different thoughts on the future scene.
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- **Each “☺” receives 3 points.**
- **Do NOT give freely. Increase “Creativity” score rather than many “Originals.”**

STEP 2 – THE UNDERLYING PROBLEM

Objective: To identify and state an important problem of the future scene to solve.

Structure

- *Completeness is an assessment of the structure of the Underlying Problem.*
- *A complete UP is one that includes all elements required.*

0, 1 <u>or</u> 2	Condition Phrase (0, 1, <u>or</u> 2 points) — The condition phrase is a lead-in fact or logical assumption from the future scene or related research that is the basis for or cause of the challenge the team chooses as its underlying problem (e.g., <i>Because little is known about the new natural disaster of sonic shock ...</i> ”).
0, 1, 2 <u>or</u> 3	Stem + Key Verb Phrase (0, 1, 2, <u>or</u> 3 points) — The underlying problem includes a stem (“How might we” or “In what ways might we”) and one key action verb in a phrase indicating what to do to solve the challenge. (e.g., “Because little is known about the new natural disaster of sonic shock, <i>how might we provide financial support for insurance companies ... ?</i> ”) The key verb phrase (KVP) is one key action verb in a phrase that <i>mandates</i> what must occur in Step 3 to solve the underlying problem.
0, 1 2 <u>or</u> 3	Purpose (0, 1, 2, <u>or</u> 3 points) — The purpose specifies an optimal direction, goal to pursue, or reason for solving the challenge. (e.g., “Because little is known about the new natural disaster of sonic shock, how might we provide financial support for insurance companies <i>so they will be able to continue to provide the protection property owners need?</i> ”) The purpose should give further information about what will be accomplished if the underlying problem is solved; it is not a repetition of the condition phrase or key verb phrase.
0, 1 <u>or</u> 2	Future Scene Parameters (0, 1 <u>or</u> 2 points) — The future scene parameters (FSP) place the underlying problem within the confines of the future scene. These parameters include time, place, and topic. (e.g., “Because little is known about the new <i>natural disaster of sonic shock</i> , how might we provide financial support for insurance companies so they will be able to continue to provide the protection property owners need <i>after 2032 in the Sound Tunnel?</i> ”)

➤ The score “Total Completeness” is the sum of the points awarded in all four components as outlined here.

Condition Phrase

- *2 points: The condition phrase relates to the key verb phrase and uses accurate information from the future scene and/or from related research on the topic.*
- *1 point: The condition phrase does not use accurate information or reasonable assumptions, or it does not relate to the key verb phrase.*
- *0 points: The condition phrase is missing.*

Stem & Key Verb Phrase

- *3 points: The key verb phrase is present and contains a single active verb or verb phrase.*
- *2 points: The key verb phrase is present but has two objects or two modifiers.*
- *1 point: The key verb phrase is present but has two verb phrases.*

- 0 points: The key verb phrase is missing.

The use of an absolute verb in the KVP, such as stop, prevent, and eliminate, may unnecessarily narrow the focus thus reducing the points awarded. However, there are times when an absolute verb is appropriate. Evaluators will determine the degree to which an absolute verb is appropriate or is too narrow, and will award points accordingly. For example, “prevent drug abuse” is narrower than “reduce drug abuse.” The context of the Future Scene will help the evaluator determine if “prevent” is appropriate or too narrow. An absolute verb should have no impact on the adequacy score, which is about the importance of the issue selected.

Purpose

- 3 points: The purpose is present and has a single focus with a logical relationship to the key verb phrase.
- 2 points: The purpose is present but does not have a clear relationship to the key verb phrase.
- 1 point: More than one purpose is present.
- 0 points: The purpose is missing.

Future Scene Parameters

- 2 points: All 3 parameters of topic, place, and time are present.
- 1 point: Two of the three parameters are present.

0 points: Only one or none of the parameters are present.

Focus and Adequacy can be very difficult for new or young teams. A pair of evaluators should discuss each U.P. as they work up the scales in deciding these areas.

Focus

- UP must be aimed at the future scene directive & narrow, but not trivial.
- If **multiple verbs or purposes** are written in the UP, score for Focus using the **first verb or purpose** only.
- If no purpose is provided, determine focus from UP as written.
- Qualities to consider:
 - How clear is the goal?
 - How manageable is the task/problem?
 - Have they set a measurable goal (Increase rather than insure)?
 - What is the size/scope of the problem (neither trite nor too large)?
- Evaluator should work up the provided scale until reaching correct statement that identifies the work in booklet.

10 or 9	Goal of UP is clear, manageable & will definitely affect those involved in a positive way as directed in future scene.
8 or 7	Goal of UP is clearly written, manageable & effect of future scene is obvious.
6 or 5	Goal is <u>somewhat</u> clear or <u>somewhat</u> manageable or will affect future scene <u>somewhat</u>
4 or 3	Goal is <u>unclear</u> or <u>unmeasurable</u> or too big or trivial in focus
4 or 3	No purpose stated; cannot determine the focus of the problem
1 – 5	Must be assigned if UP is not found in Step 1
1	Must be assigned if future scene is ignored, restated, or broadened. SEE EVALUATION LEAD before assigning a “1.”

Adequacy

-Importance of concern chosen and stated in UP

-If a generic verb such as educate or finance (fund raise) or convince is used, the UP should be rated low UNLESS you see a significant reason why the generic problem would be of importance to the future scene. (Example: connection made in the purpose)

-If multiple verbs or purposes are written into UP, score using first verb or purpose only.

-If no purpose is provided, determine adequacy from UP as written.

-Qualities to consider:

- Have they identified a particular concern related to the future scene?
- How significant is the concern they've chosen?
- Will addressing the concern have an impact on the quality of life for people involved?

-UP's that score highest on Adequacy:

- Should be significant concerns of the future scene
- Should make no drastic assumptions
- Should be of importance to the future of the people involved

- Evaluator should work up the provided scale until reaching correct statement that identifies the work in booklet.

10	WOULD MAKE A DEFINITE & POSITIVE CHANGE AS DIRECTED IN THE FUTURE SCENE
9	EXTREMELY IMPORTANT in regards to the future scene
8 or 7	VERY IMPORTANT in regards to future scene
6 or 5	AVERAGE SIGNIFICANCE to future scene
4 or 3	LITTLE IMPORTANCE to future scene or makes assumptions not given in future scene
4 or 3	No purpose stated; the true importance of the problem cannot be determined
1	Problem is a restating, broadening, or ignoring of the future scene SEE EVALUATION LEAD before assigning a "1."

STEP 3: SOLUTIONS

***Read Step 2 as written in booklet before evaluating this Step.

***Neatly write UP onto evaluation sheet in provided space (if not already done).

Objective: To formulate many, varied, & unusual possibilities or ideas that respond to the UP.

- Solution statements should be written as definite proposals - not using “may” or “might.” Please comment on this to any teams doing otherwise and continue to evaluate.
- If no purpose was stated in Step 2, method of scoring will depend on level of problem being completed.
Practice Problems: Evaluator will guess at the purpose as implied by the stated UP and write it onto the evaluation sheet to model how the purpose should have been stated. Solutions should be scored according to the assigned purpose.
Qualifying Problems: Evaluator will NOT guess at the unstated purpose. Solutions will not be scored, nor will any points be awarded in Step 3.
- If a generic UP was used, the evaluator may note a lack of research & futuristic thinking in this step and should note this in “Overall.”

Fluency

- Fluency measures the number of solution ideas listed that are relevant to the UP.

R	RELEVANT – Those solution ideas that, if implemented, achieves the goal of the UP (KVP <u>and</u> Purpose) Solution ideas <u>must address</u> (not necessarily solve) every part of the UP. UP with multiple verbs/purposes – Each solution must be aimed at all verbs & purposes A solution does not have to completely solve the UP.
“√”	After each <u>solid</u> “R” to indicate solutions which are significant rather than trite
I	IRRELEVANT – Those solution ideas which do not appear to have a clear connection to the goals of the UP
P	PURPOSE – Those statements that do not address the purpose of the UP
U	UNCLEAR – Those statements that do not identify a solution idea or have faulty logic
D	DUPLICATE – Those solution ideas that are too contextually similar to another solution idea – previously scored as Relevant – to be given additional credit. Contextually similar trivial ideas may be combined & counted as solution if new idea is formed. Do not confuse duplicate solution ideas with duplicated categories. It is acceptable for students to list several solution ideas in the same category.
➤ Count the number of “R’s” and assign points according to provided scale.	

Elaboration

Any solution that provides 3 of these elements should definitely be considered elaborately written and receive a “√”.

Who indicates the person or agency who will implement the solution idea; the “who” should identify the person or group. A pronoun such as we, they, he/she are not sufficient to count as a “who.”

What states the solution idea.

How describes how the solution idea will work.

Why explains why the solution idea will solve the UP (KVP and purpose).

When designates a timeline, a specific date for completion, timeframes for specific ideas to occur, etc.

Where describes specific relevant places necessary for the solution idea to occur.

- Teams do not have to write a paragraph in order to get elaboration points, nor should they earn elaboration points for writing a paragraph
- NOTE: Repetitive elaboration should only receive credit 3 times. Evaluators should provide suggestions for better ways to state elaboration.

➤ Count the number of “√’s” & refer to provided scale to determine points to be assigned.

Flexibility – Refers to the diversity of thought in relevant solution ideas.

- The more varied the ways the UP is approached, the better.
- A higher score is given if solutions address multiple categories.

Category Number/ Name	Categorize the “R” responses on the team’s booklet (use the provided Number/category list on the evaluation sheet).
<ul style="list-style-type: none"> ➤ Identify category(s) for each accepted solution (R). ➤ Circle <u>only</u> one category for each “R”, attempting to use as many categories as possible. ➤ Count 1 point for each new category until you reach the maximum of 10 points. DO NOT AWARD MORE THAN 10 POINTS. 	

Originality – Rewards teams for especially insightful or creative thinking.

- Only award Originality points for new/or different thoughts on the future scene.
- Do NOT award originality so freely that the score is warped.

☺	New or different thoughts on the future scene.
<ul style="list-style-type: none"> ➤ Each “☺” receives 3 points. ➤ Do <u>NOT</u> give freely. Increase “Creativity” score rather than many “Originals.” 	

STEP 4: CRITERIA

*****Read Step 2 as written in booklet before evaluating this Step.**

*****Neatly write UP onto evaluation sheet in provided space (if not already done).**

Objective: To develop criteria that will adequately compare solutions in order to decide upon a best solution for development of an action plan.

A. CORRECTLY WRITTEN

- *Criteria must be written to show the following:*

1. Desired direction – least expensive rather than most expensive
2. Superlative degree – least expensive rather than less expensive
3. Singular in intent – not least expensive & easiest to implement

(Example - Which solution would be the least expensive to implement?)

Criteria do not have to be written in the form of a question to be written correctly.

➤	In the left column of the score sheet, mark as follows for each criterion:
-	INCORRECTLY written criterion
√	CORRECTLY written criterion. No additional credit for repetitive criteria.
➤	Total points are attained by adding the “√’s” in the column under “Correctly Written.”

Criteria not scored as correctly written **are** evaluated for applicability and relevance.

Quite a few terms have been used to describe criteria, sometimes with completely different meanings depending on who is using the term. Here is a list of the terms and definitions we will be using for evaluation.

B) RELEVANCE

- **RELEVANT:** A criterion that is appropriate for evaluating solutions to this underlying problem.
- **NOT RELEVANT:** A criterion that is not appropriate for evaluating solutions to this underlying problem.

C) TYPES OF CRITERIA

- **UP-BASED: KVP or UP-BASED: PURPOSE:** A criterion that is based on the ideas from the underlying problem, either from the key verb phrase or from the purpose.
- **GENERIC:** A criterion whose core idea can be applied to nearly every solution to nearly every underlying problem for nearly every topic. **A generic criterion does NOT become specific by adding future scene information to it.**
- **SPECIFIC:** A criterion whose core idea can only be applied more narrowly, to this underlying problem and/or for this topic, or for other closely related topics, but not to a wide variety of areas. It may be based on the research for a topic. *A specific criterion does NOT need to have future scene information in it. However, sometimes it is hard to tell if a criterion is generic or specific without modifying information.*

D) “FLAVORS” FOR GENERIC AND SPECIFIC TYPES

- **PLAIN:** A criterion with no details or information coming directly from the future scene.
- **MODIFIED:** A criterion with adequate details, such as important stakeholders, to place it firmly within this underlying problem and/or future scene. Parameters alone (time, place, and topic) are not enough for modification. Try to avoid adding a complete KVP or purpose as a modification.
- **JUSTIFIED:** A criterion that gives a condition from the future scene as a rationale for its use. The justification must have a logical connection to the criterion.

STEP 4 EXAMPLES

Underlying Problem: Because there is a controversy regarding Navitas users receiving SI transplants, HMW in 2032 in the US maintain the equitable distribution of SI transplants so that potential donors continue to donate their organs? (*taken from the Evaluation Guidelines*)

Not relevant	Which solution will prevent identity theft the most? (0 points)
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UP-Based: KVP	Which solution will provide the fairest method of determining who gets the SI organs? (3 points)
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UP-Based: Purpose	Which solution will most convince people to continue donating their organs? (3 points)
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Plain Generic	Which solution will be most accepted by the people? (1 point)
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Modified Generic	Which solution will be most accepted by the Navitas users who need SI transplants? (2 points)
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Justified Generic	Since 4% of the population continues to use Navitas that can lead to SI failure, which solution will be most accepted. (3 points)
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Plain Specific	Which solution will be the most legally binding? (3 points)
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Modified Specific	Which solution will be the most legally binding on the organ donors? (3 points)
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Justified Specific	Since ethically and legally all patients must be treated without discrimination, which solution will be the most legally binding on the organ donors? (3 points)
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STEP 4 SCORING

****International Terms: As shortcuts, the terms generic, modified, and advanced will be used to designate 1, 2, or 3 points.** There are multiple ways to earn 3 points, all part of the “advanced” group of criteria. Note that ALL specific criteria receive 3 points, but generic criteria must be “justified” in order to receive 3 points. If a justification does not come directly from the future scene or have a logical connection to the criterion, the justification is ignored and the criterion is scored on its own.

Evaluation Shortcut Terms	Type & Flavor	Points
NR - Not relevant	Not relevant	0
G - Generic	Plain Generic	1
M – Modified	Modified Generic	2
A – Advanced	Justified Generic	3
A – Advanced	UP-Based: KVP	3
A – Advanced	UP-Based: Purpose	3
A – Advanced	Plain Specific	3
A – Advanced	Modified Specific	3
A – Advanced	Justified Specific	3

STEP 5: GRID

Objective: To rank order the top ten solutions from Step 3 using criteria formed in Step 4 in order to arrive at the best solution for use as an action plan in Step 6.

Correctly Used Grid

1-5 points	<p>Grid is assigned points for each solution ranging from best (8 points) to worst (1 point) for each criterion. Each of the 5 columns should show ranking of 1 – 8.</p> <p>Grid must be calculated correctly. If numbers are assigned correctly, <u>sum of 8 totals on grid will equal 180.</u></p> <p>Evaluator should add up the ten totals from rows and mark grand total at bottom of booklet page to indicate if calculations have been done accurately.</p> <ul style="list-style-type: none"> - IF totals do not add up to 180. Evaluator should check that each column has been ranked from 1 to 10 and that each row has been added correctly. (Find reason why the grid did not add up to correct total of 180!) - IF students have <u>weighted</u> one criterion because they found it to have greater value than the other criteria, grand total of grid would equal <u>216</u>. <p>Solution with highest score must be used as final solution for action plan in Step 6. <i>Check Step 6 to ensure that they have done so.</i></p>
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C. Scoring of Grid

5 points	<p>No errors</p> <ul style="list-style-type: none"> - Numbers placed correctly in columns; - Accurate addition; - Highest scored solution used in Step 6
4 points	<p>1 error noted in grid</p> <ul style="list-style-type: none"> - Numbers misplaced in columns - Minor addition error
3 points	<p>2 errors noted in grid</p>
1 or 2 points	<p>3 or more errors made Top solution is not used in Step 6</p>

STEP 6: ACTION PLAN

*****Read Step 2 as written in booklet before evaluating this Step.**

*****Neatly write UP onto evaluation sheet in provided space (if not already done).**

Objective: To form a plan of action which addresses the UP stated in Step 2

If a booklet is incomplete and Step 6 has not been written, points cannot be awarded. In this case, place "-" where score would have been placed. This will indicate that no solution was written.

Relevance to the UP

Is the action plan actually aimed at the verb & purpose stated in Step 2?

(Being relevant does not necessarily mean that the solution would actually solve the UP.)

5	Excellent connection to the UP
4	Very good connection to the UP
3	Fair connection to UP; can see connection, but need more information
2	Poor connection to the UP; connection not obvious
1	Final solution incomplete & /or relevance to UP is missing

Effectiveness (how well will it solve the UP)

If plan were followed as described, would the solution really solve the UP?

5	Excellent plan that would <u>definitely solve</u> the UP
4	Very good plan that would solve the UP <u>for the most part</u>
3	Good plan that would make <u>some difference</u> in the UP
2	Plan would probably <u>not solve</u> the UP
1	Final solution is poorly written &/or incomplete (effect not obvious)

Impact on Future Scene

Will solution improve the situation presented in the future scene?

An effective action plan for an underlying problem that scores well in adequacy in step 2 usually receives a high score for impact.

5	Solution would definitely make a <u>significant</u> difference in future scene
4	Solution would make a <u>substantial</u> difference in future scene
3	Solution would make <u>some</u> difference in future scene
2	Solution would make <u>little</u> difference in future scene
1	Solution is incomplete &/or impact on future scene is not obvious

Humaneness

How positive an impact will the solution have on the persons affected by it?

5	Humanity would be <u>positively</u> affected by solution & <u>plan shows how</u>
4	Humanity would <u>obviously</u> receive some benefit from the plan & is stated
3	It is <u>not clear</u> how humanity would be affected by the plan (Neutral)
2	Humanity could be <u>adversely</u> affected by plan
1	Humanity would definitely be <u>negatively</u> affected by the plan

Development of Action Plan

How complete is Action Plan? Measures the degree to which a team creates a strategy for addressing the underlying problem. It is a proposal for solving the UP. Developing an action plan involves moving from creative ideas into action; a new idea is incomplete until it is a workable idea. The action plan demonstrates how it addresses the problem area in step 2 and how it impacts the future scene.

10	Contains detailed information such as - <ul style="list-style-type: none"> • Detailed when and where • Long and short term goals are included • Obstacles to overcome are detailed • Assister and Resisters are noted • Advantages/Limitations and how to Overcome/Unique Possibilities are given
9	Fully elaborated and comprehensive. Long and short term goals are included.
7-8	Detailed plan of action is given; appropriate who, what, and how is provided
5-6	Plan is present and understandable, but not detailed; the who and what is provided, but many details are missing
3-4	Somewhat clear, but necessary elements are missing; the appropriate who, what, or how is missing; Tie to UP(KVP or Purpose) is not provided
1-2	Very unclear
-	No action plan presented

OVERALL EVALUATION

Objective: To combine research with creative problem solving to effectively work from a futuristic situation to a focused action plan.

- Evaluators of Steps 1, 3 & 6 must score Overall section of the evaluation sheet.
- Evaluators must differentiate work done in booklets according to scales provided.
- Person in charge of calculations will average scores for total Overall score.

Research Applied

- *Topic terminology and/or concepts contained within writing*
- *Many ideas generated in Steps 1 & 3 (Fluency, Flexibility)*
- *Ideas of today’s world converted to new futuristic concepts*

10	BOOK IS FULL OF RESEARCH
9	EXCELLENT – Obvious evidence of research
7 - 8	GOOD – Noticeable effort to use researched information
5 - 6	AVERAGE – Typical work for age group. Use of common knowledge
4	BELOW AVERAGE – Evidence of research missing
NO NEED FOR LOWER SCORE TO SHOW LACK OF RESEARCH	

Creative Thinking

- *Innovative, unconventional thinking (Fluency, Flexibility)*
- *Fresh insights not seen in other booklets (Originality)*
- *New relationships (Fluency, Originality)*
- *Original approach in writing.*

10	BOOK WORK WAS LOADED WITH ORIGINAL IDEAS & CONCEPTS
9	EXCELLENT – Booklet displayed creative energy at work & thoughts stretched to new ideas
7 - 8	GOOD – Team was quite fluent, elaborate, & original. High creative strength obvious
5 - 6	AVERAGE – Typical work for age group; ideas don’t go beyond future scene or common practice.
4	Students did not show any aspect of creative thinking
NO NEED FOR LOWER SCORE TO SHOW LACK OF CREATIVE THINKING	

Futuristic Thinking

- *Extrapolation of futuristic elements in the future scene*
- *Stretching of today’s world to that of the future scene*
- *Proposal of workable, futuristic solutions*

10	YOU WERE IN THE FUTURE WHILE READING THE BOOKLET!
9	EXCELLENT – Team provided many futuristic ideas
7 - 8	GOOD – Team considered and included some futuristic ideas
5 - 6	AVERAGE – Typical work for age group; basically present-day ideas
4	POOR – Booklet contained little or no futuristic ideas
NO NEED FOR LOWER SCORE TO SHOW LACK OF FUTURISTIC THINKING	