

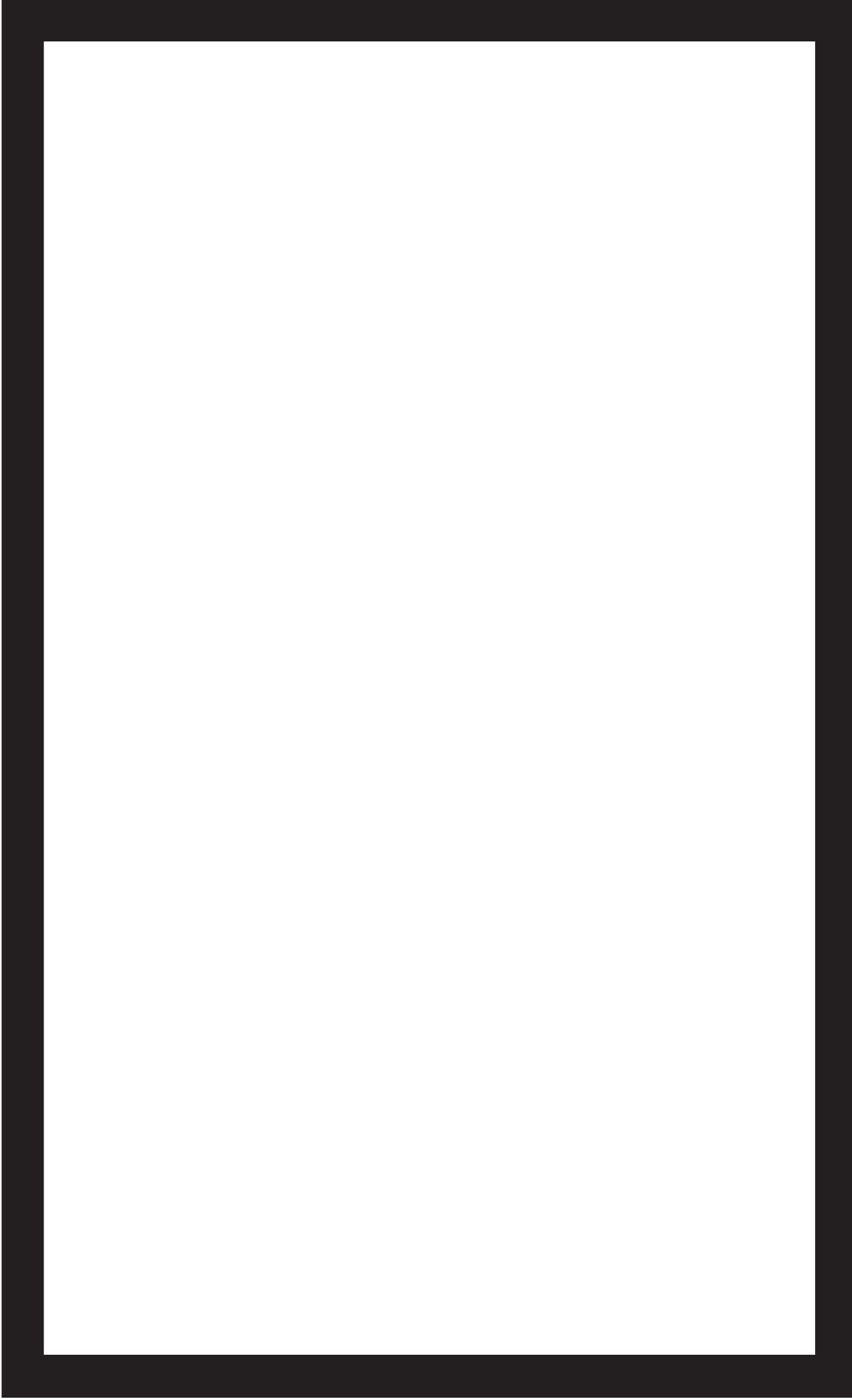
Action-based Problem Solving

Junior/Middle Divisions



STUDENT ACTION BOOKLET

Step 1: Identify Challenges ... brainstorming areas of concern



JOT BOARD

Place the **Jot Board** in the *middle of the group*. All group members should write their ideas on the **Jot Board** - even upside down and sideways. Identify as many problems as you can think of by **jotting** them down on the **Jot Board**. Simple phrases, words, symbols, or drawings are fine. All ideas, including *wild* and *crazy* ones, should be included on the **Jot Board**. **Circle** the five or six problems that your team thinks present the biggest challenges.

Step 1, Part 2: Incubating and Elaborating the Challenges

... Creating the "IF ... THEN" Challenge Statements (optional for juniors)

Think about the five or six problems circled on your *Jot Board*. Tell more about them by explaining **what** the problem is and **why** it is a challenge. Think about the **causes** and **effects** of each problem - if this happens, then this may result. Remember to use *may*, *might* or *could* rather than *can*, *will* or *would*.

Fill-in-the-blank "examples" for challenge statements are listed below. You may use a similar format when elaborating on your circled ideas.

1. If (explain what you think the problem is), **then** (explain what you think might happen).
2. If _____ continues, **then** (explain what you think might happen).
3. If there is a problem with _____, **then** (explain what you think might happen).

List your challenge statements on the numbered lines below.

1.	
2.	
3.	
4.	
5.	
6.	

Step 2: Select an Underlying Problem *... recognizing and stating the most significant problem*

Look back at the problems **circled** on your Step 1 *Jot Board*. Identify which challenges, if overcome, would have the greatest impact on this specific situation. The problem you choose will become the basis for your Underlying Problem. Look at your **circled** ideas and discuss the following questions before selecting the Underlying Problem.

*Which problem, if overcome, would have the greatest **impact** on the fuzzy challenge?*

*Which problem or challenge can we have the most **influence** on because of our understanding or knowledge of the problem or people involved?*

*Which problem or challenge generates the most **interest** and **enthusiasm** among our team members?*

*Which problem seems to inspire our **imagination**s the most, so we are more likely to come up with the creative ideas to overcome the challenge?*

The Underlying Problem should be written as a question using a format similar to the one below:

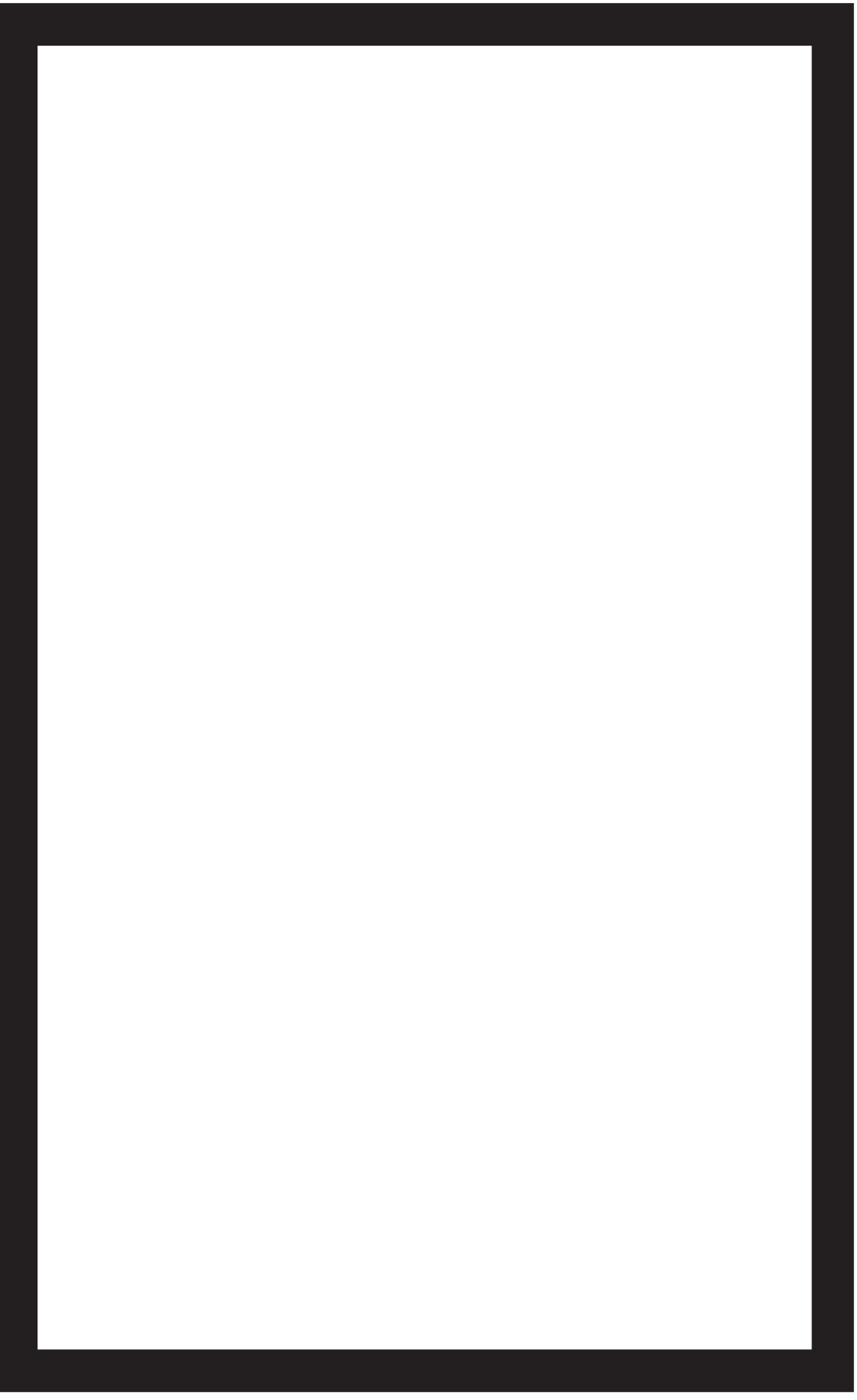
In what ways might we, the (team name – optional), (one key verb phrase which indicates the action you will take) **so that (the goal, purpose or desired outcome) ?**

Avoid absolute verbs such as *prevent*, *eliminate* or *stop* as it is nearly impossible to create solutions that totally prevent, eliminate, or stop something from happening. Only use *one* verb in the verb phrase so the action the team takes is clearly understood.

Write the Underlying Problem decided upon by the team in the box below.

In what ways might we

Step 3: Produce Solutions ... brainstorming the action



JOT BOARD

Place the **Jot Board** in the *middle of the group*. Brainstorm as many different ways as you can think of to overcome the Underlying Problem identified by your team in Step 2. Include all ideas for action, even *wild* and *crazy* ones, on the Jot Board. **Circle** the 10 action ideas that your team thinks are the most promising.

Step 3, Part 2: Produce Solution Ideas

... **Creating the solutions** (optional for juniors)

Think about the solutions you circled on your *Jot Board*. Pick **six** to **ten** of the **circled** ideas. Elaborate on your choices to explain **what** the idea is, **who** will put your idea into action, and **how** or **why** it will overcome the Underlying Problem. Write your solution ideas as positive statements of the action to be taken using *will* or *would*.

A fill-in-the-blank "example" for a solution idea is listed below. You may want to use a similar format when expanding on your solution ideas to create elaborated solutions.

<p>Who – {person, group, business, type of technology} will {what will be done to overcome the Underlying Problem} so that {why it needs to be done or how it will solve this problem} _____.</p>

List your solution ideas on the numbered lines below.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Step 4: Generate and Apply Criteria... **using criteria to analyze and evaluate the most promising ideas**

List the eight ideas **circled** on the numbered lines. Select four criteria from the examples below and list each across the top of the grid. Think about the solution ideas. Decide how well each idea fits each criterion. Rank the ideas on a scale from 1-8.

- Criteria Examples:**
- Which action idea will . . .*
- . . . be the most useful?*
 - . . . be the safest to implement?*
 - . . . be the least harmful?*
 - . . . be the easiest to keep going?*
 - . . . cause the least amount of hassle?*
 - . . . be the most honorable?*
 - . . . be the longest lasting?*
 - . . . be the most acceptable to those in charge?*
 - . . . be the most acceptable to those involved?*
 - . . . cost the least to put into operation?*

1 = Worst Idea
8 = Best Idea

Criteria

List the top 8 ideas below

	Criteria				TOTAL	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

Total the points for each action idea and note the score in the total box. Put a check mark in the last column next to 2, 3, or 4 ideas which scored the highest in the total column and can be used together to form a plan. These ideas have the most potential for overall success.

Step 5: Develop an Action Plan

Look at your highest ranked solution ideas. Combine those that would work well together and elaborate on them to create the Action Plan. Explain what it is you will do to solve the Underlying Problem. Be specific, listing names, tasks, and dates when you can.

What action will be taken? (Use the ideas with a check mark.)

Who will take the action? (Your group or someone else?)

How and to whom will you present your plan?

Why is this action important? (What difference will it make?)
