

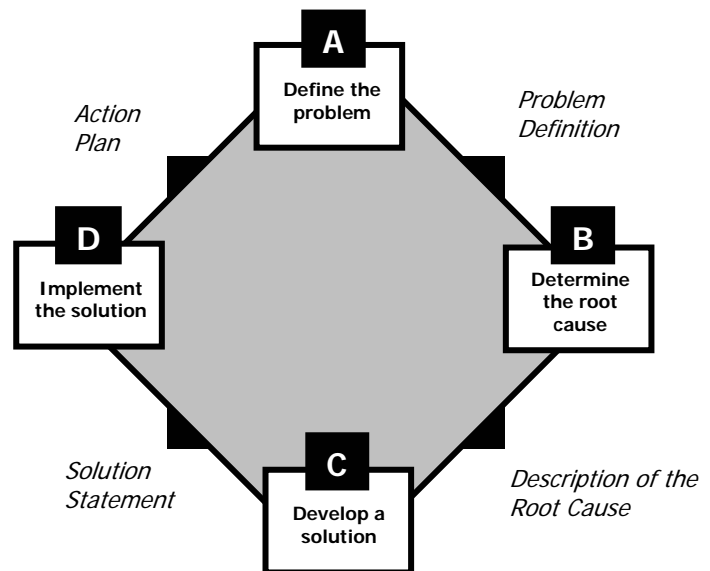
Toolkit

Problem Solving Roadmap

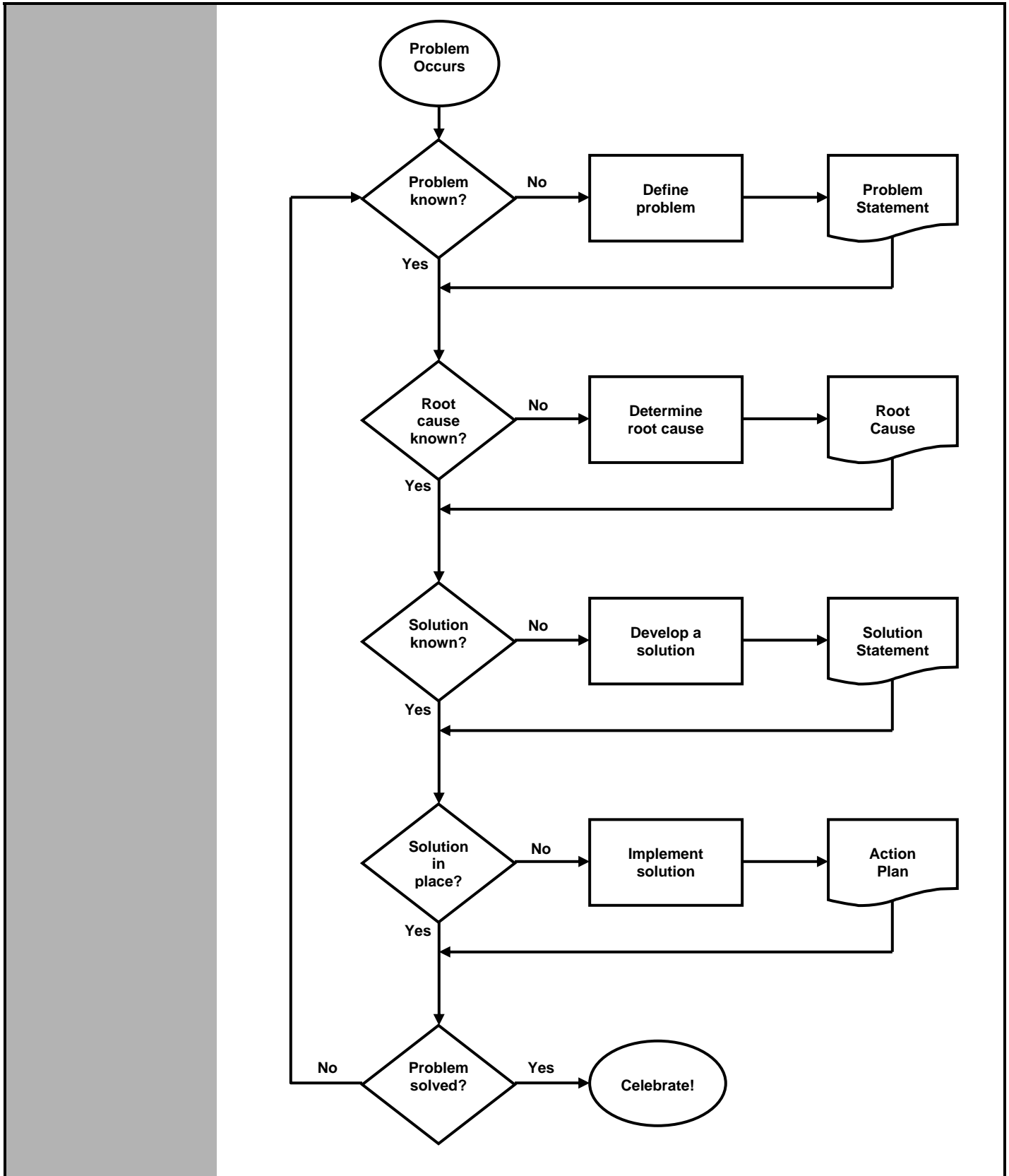
Name:	<input type="text"/>
Problem:	<input type="text"/>
Date:	<input type="text"/>



Use this roadmap to plan, summarize, and document your approach to solving a work related problem.



Problem Solving Process



Problem Solving Chart

Step	Outcome	Key Actions	Resources
Step A: Define the problem	Problem definition	<ol style="list-style-type: none"> 1. Define the current situation. 2. Define the desired situation. 3. Define the importance of the problem. 4. Define who needs to be involved in solving the problem. 5. Define the timeframe for solving the problem. 6. Record the problem definition on the Problem Solving Summary. 	<p>Problem Definition Worksheet</p> <p>Problem Solving Summary</p>
Step B: Determine the root cause	Description of root cause	<ol style="list-style-type: none"> 1. Analyze the root cause. --Ask WHY --Get additional information --Use analytical tools 2. Describe the root cause. 3. Check the root cause. 	<p>Root Cause Worksheet</p> <p>Problem Solving Summary</p>
Step C: Develop a solution	Solution statement	<ol style="list-style-type: none"> 1. STATE the solution challenge. 2. TARGET the solution criteria. 3. Identify solution OPTIONS. 4. CHECK the options against the criteria. 5. KNOW your solution. 6. Record the solution statement on the Problem Solving Summary. 	<p>Solution Worksheet</p> <p>Problem Solving Summary</p>
Step D: Implement the solution	Action plan	<ol style="list-style-type: none"> 1. Clarify the solution. 2. Plan out the solution. 3. DO the plan. 4. CHECK progress toward the plan. 5. ACT on what you find out. 6. Summarize the plan and the results on the Problem Solving Summary. 	<p>Root Cause Worksheet</p> <p>Problem Solving Summary</p>

A: Define the problem (Problem Definition Worksheet)

Use this worksheet to help you define a specific work problem.

<p>▼</p> <p>1) Define the current situation. Begin by describing the basic problem. Then, describe WHERE, WHEN, and HOW MUCH the problem is occurring.</p> <p>2) Define the desired situation. What would you see if the problem were solved?</p> <p>3) Define the importance of the problem. What impact does the problem have?</p> <p>4) Define the involvement. Describe who needs to be involved in solving the problem.</p> <p>5) Define the timeframe. Describe when the problem must be solved.</p> <p>6) Summarize. Record the problem definition on the Problem Solving Summary.</p>	CURRENT SITUATION —What OBSERVABLE FACTS help tell you what is happening?	
	1	WHAT is the basic problem?
		WHERE does it happen?
		WHEN does it happen?
		HOW MUCH does it happen?
	DESIRED SITUATION —What would you see if the problem did not exist?	
	2	
	IMPORTANCE —What impact will this problem have on safety, quality, cost, speed, etc.?	
	3	
	INVOLVEMENT —Who needs to be involved and to what level?	
	4	
TIMEFRAME —How soon must the problem be solved?		
5		






B: Determine the root cause (Root Cause Worksheet)

Use this worksheet to help you determine the root cause of a problem.

<p>▼</p> <p>1) Analyze root cause. First, ask why does the problem exist? If you have the answer, rephrase it in the form of a question.</p> <p>If you do not know the answer, then identify the additional information and analytical tools that can help you find the answer.</p> <p>Keep asking WHY until you feel you have the root cause.</p> <p>2) Describe the root cause. Write a brief statement that describes the root cause of the problem.</p> <p>3) Check the root cause. Use the three check questions to ensure that you have determined the root cause.</p> <p>4) Summarize. Record the root cause on the Problem Solving Summary.</p>	Analyze Root Cause—Ask five WHYS. Gather additional information and use analytical tools to find the answers to your WHY questions.																				
	1	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 33%;">Five WHY Questions</th> <th style="width: 33%;">Additional Information Analytical Tools</th> <th style="width: 33%;">Five WHY Answers</th> </tr> </thead> <tbody> <tr><td style="height: 80px; vertical-align: top;">WHY?</td><td></td><td style="vertical-align: top;">BECAUSE</td></tr> <tr><td style="height: 80px; vertical-align: top;">WHY?</td><td></td><td style="vertical-align: top;">BECAUSE</td></tr> <tr><td style="height: 80px; vertical-align: top;">WHY?</td><td></td><td style="vertical-align: top;">BECAUSE</td></tr> <tr><td style="height: 80px; vertical-align: top;">WHY?</td><td></td><td style="vertical-align: top;">BECAUSE</td></tr> <tr><td style="height: 80px; vertical-align: top;">WHY?</td><td></td><td style="vertical-align: top;">BECAUSE</td></tr> </tbody> </table>	Five WHY Questions	Additional Information Analytical Tools	Five WHY Answers	WHY?		BECAUSE	WHY?		BECAUSE	WHY?		BECAUSE	WHY?		BECAUSE	WHY?		BECAUSE	
	Five WHY Questions	Additional Information Analytical Tools	Five WHY Answers																		
	WHY?		BECAUSE																		
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	WHY?		BECAUSE																		
	WHY?		BECAUSE																		
	2	Describe Root Cause—Based on your analysis, what is the root cause? Write a description of the root cause below.																			
	3	Check Root Cause— Are you certain of the root cause?																			
	Y	N	Does the root cause explain why the problem is occurring?																		
	Y	N	If you addressed the root cause would you solve the problem?																		
	Y	N	Do you have the facts to support your conclusion?																		

C: Develop a solution (Solution Worksheet)

Use this worksheet to help you develop a solution to the problem.

<p>▼</p> <p>S) STATE the solution challenge. State, in the form of a question, the challenge (root cause) for which you need a solution.</p> <p>T) TARGET the criteria. List the criteria you will use to evaluate the proposed solution options.</p> <p>O) OFFER OPTIONS. Identify and list the ideas and options you have for solving the problem.</p> <p>C) CHECK options against criteria. Evaluate each option using the target criteria. Select the best option.</p> <p>K) KNOW your solution. Make sure you all understand how the solution will solve the problem. Be sure the solution is consistent with company goals and policies.</p> <p>Summarize. Record the solution statement on the Problem Solving Summary.</p>	<p>State the solution challenge—Write the challenge (root cause) for which you need to develop a solution.</p>	<p>S</p> 	
	<p>Target the criteria—Define the criteria that should be met by the chosen solution. Ensure the criteria are MEASURABLE and CONSISTENT with company goals, policies, and procedures.</p>	<p>T</p> 	
	<p>Offer options—Identify and list solution options that will solve the problem by addressing the root cause and meeting the target criteria.</p>	<p>O</p> 	
	<p>Check the options against the criteria—Select the solution option(s) that best meets the criteria.</p>	<p>C</p> 	
	<p>Know your solution—Review your solution(s) for CONSISTENCY with company goals. Verify that your solution will address the root cause.</p>	<p>K</p> 	

D: Implement the solution (Action Planning Tool)

Use this tool to help plan and implement solutions and actions at work.

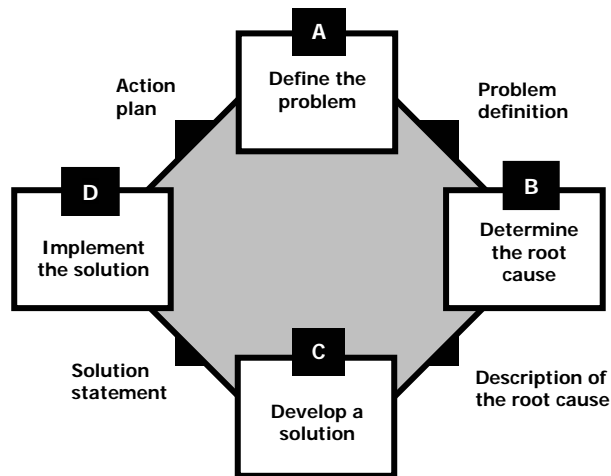
<p>▼</p> <p>S) Clarify the SOLUTION. State the current and desired situations.</p> <p>State the solution.</p> <p>P) PLAN Plan out WHAT action need to be taken, WHO will take the action, WHEN, the action will be completed, and what the OUTCOME will be.</p> <p>D) DO. Do what is on the plan and monitor progress.</p> <p>C) CHECK. Periodically follow-up to formally check and record progress made.</p> <p>A) ACT. Act on obstacles and opportunities that arise.</p> <p>Summarize. Record a summary of your action plan on the Problem Solving Summary.</p>	Date Updated: <input style="width: 100px;" type="text"/>			
	Current Situation: (What is the current situation?)		Desired Situation: (What is the desired situation?)	
	Solution/Action Statement: (What will you do to move from the current to the desired situation?)			
#	Action Steps	Who	Date	Outcome
Follow-up				

Problem Solving Summary

Use this worksheet to help you summarize and communicate your problem solving process.

<p>▼</p> <p>A) Record the problem definition. Summarize the definition of the problem. Use the Problem Definition Worksheet 4A to define the problem.</p> <p>B) Record a description of the root cause. Summarize the root cause. Use the Root Cause Worksheet 4B to determine the root cause.</p> <p>C) Record the solution statement. Summarize the solution that you have chosen. Use the Solution Worksheet 4C to develop the solution.</p> <p>D) Record the action plan. Summarize the highlights of the action plan or refer to the actual Action Planning Tool 4C.</p>	<p>Problem Definition—Write the problem definition. TIP: Describe WHAT, WHERE, WHEN, HOW MUCH.</p>	A	
	<p>Description of Root Cause—Write a description of the root cause. TIP: Use the 5 WHY'S.</p>	B	
	<p>Solution Statement—Write a solution statement in the space below. TIP: Use the S-T-O-C-K method.</p>	C	
	<p>Action Plan—Write an action plan for implementing the solution. TIP: Describe WHAT, WHO, DATE.</p>	D	

Problem Solving Checklist



A	<p>Define the problem</p> <ul style="list-style-type: none"> <input type="checkbox"/> Did you define the CURRENT SITUATION (what, where, when, how much)? <input type="checkbox"/> Did you define the DESIRED SITUATION (if the problem did not exist)? <input type="checkbox"/> Did you define the IMPORTANCE of the problem (impact on business)? <input type="checkbox"/> Did you define WHO needs to be INVOLVED in solving this problem? <input type="checkbox"/> Did you define the TIMEFRAME for solving the problem?
B	<p>Determine the root cause</p> <ul style="list-style-type: none"> <input type="checkbox"/> Did you ANALYZE the root cause (5 WHYS, information, tools)? <input type="checkbox"/> Did you DESCRIBE the root cause? <input type="checkbox"/> Does the root cause explain WHY the problem exists? <input type="checkbox"/> If you ADDRESSED the root cause, would you SOLVE the problem? <input type="checkbox"/> Do you have the FACTS to support your conclusion?
C	<p>Develop a solution</p> <ul style="list-style-type: none"> <input type="checkbox"/> Have you STATED the solution challenge? <input type="checkbox"/> Have you identified TARGET CRITERIA for your solution? <input type="checkbox"/> Have you developed solution OPTIONS that address the root cause? <input type="checkbox"/> Have you CHECKED the options against the criteria? <input type="checkbox"/> Do you KNOW that your solution(s) will address the root cause?
D	<p>Implement the solution</p> <ul style="list-style-type: none"> <input type="checkbox"/> Did you describe the CURRENT situation? <input type="checkbox"/> Did you describe the DESIRED situation? <input type="checkbox"/> Did you list all the required ACTION STEPS? <input type="checkbox"/> Did you establish WHO would do WHAT by WHEN? <input type="checkbox"/> Did you establish a FOLLOW-UP process for your action plan?

