

## BETTER UPON REFLECTION:

Building  
metacognitive  
habits

### ONE CARD

at a time

The  
**EvaluateUR Method**

## Tips for Playing:

The cards can be used at any time, in any order, singly, or in any combination. They can be played by individuals or groups. The goal is to return to the cards regularly because frequency is the key to habit formation.

### Individual play

- Individuals can choose any card to prompt reflection.
- Individuals may take the opportunity to be vulnerable with themselves and say things to themselves that they might not say to others.

### Group play

- Individuals may take turns answering cards. Fun and laughter are encouraged.
- Players may also: answer from the point of view of someone else in the group; pass a card to someone else for them to respond; or shift perspective by answering from the point of view of someone outside the group.

Learn more about  
how to play:



## When to Play

- Use a card to kick off a meeting session before moving on to the business at hand. End a meeting with a card either to recap the day's activities or to set goals for the next session.
- Use cards to debrief about what's working, what's not, and where things could be improved.
- Use cards on the plane, train, bus, or during pizza parties. Most anytime can be a good time to pause and reflect together.

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**PROBLEM SOLVING**



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Learn more about the  
EvaluateUR Method:



These cards can help build metacognition:

Research demonstrates that individuals with gains in metacognition show improvements in reading comprehension, problem-solving, critical thinking, skill development, and performance.

Metacognitive people:

- set goals
- plan for success
- monitor their progress
- recognize when to adjust their approach
- learn to be flexible
- look at problems from different angles
- ask for guidance

These cards are designed to strengthen metacognitive habits that can improve performance in any domain. Cards can be used at any point, in any order, singularly, or in any combination with individuals, groups, or teams.

## The **EvaluateUR Method**

### PROBLEM SOLVING



Consider one of the competition tasks and possible ways to accomplish the task. How many different solutions can you generate in 3 minutes?

### PROBLEM SOLVING



What's your problem solving superpower? Briefly explain how it works.

### PROBLEM SOLVING



When you're evaluating possible solutions to a problem, do you find yourself favoring the first thing that might work or do you consider many different possibilities before making a choice?

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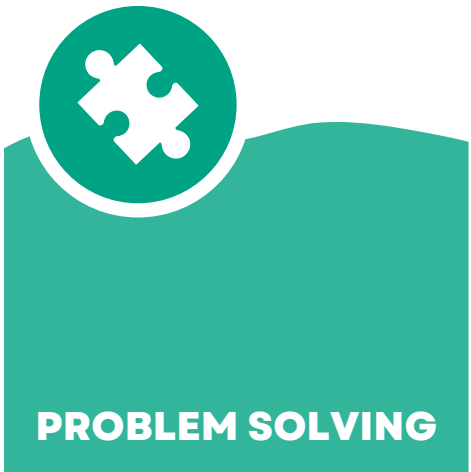
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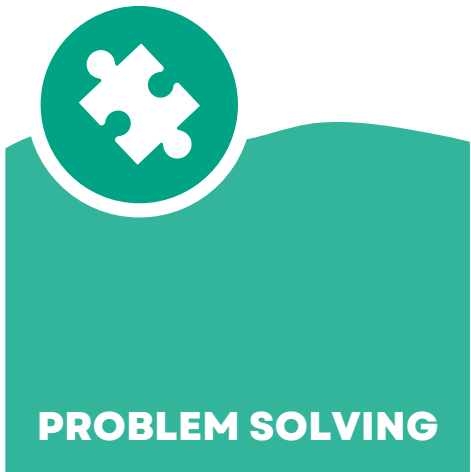
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## PROBLEM SOLVING



How do you decide whether or not a solution is worth trying?

## PROBLEM SOLVING



Given that we don't know what we don't know, how do you go about identifying assumptions, gaps in understanding, and blind spots?

## PROBLEM SOLVING



If you had to, how many parts of your design could be replaced with low tech objects?

## PROBLEM SOLVING



What's one skill you wish you could develop because it is needed to accomplish this project? (If playing as a team, go around the room).

## PROBLEM SOLVING



How do you know if you're asking the right question?

## PROBLEM SOLVING



Describe a time when you were sure you had a solution to a problem and it turned out not to work. What did you learn from this experience?

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## PERSISTENCE



Would your friends describe you as flexible? Why or why not?

## PERSISTENCE



What's the first thing you do when you encounter something you don't understand? Where do you go from there?

## PROBLEM SOLVING



When it comes to solving problems, do you take a step-by-step approach or work on multiple elements at the same time?

## PERSISTENCE



Describe a time when feedback made all the difference in your success. What made the feedback so effective?

## PERSISTENCE



Are you comfortable having difficult conversations? Give an example.

## PERSISTENCE



Do you consider yourself a risk-taker? Describe a time when taking a risk worked out. Or describe a time when you thought a risk was worth taking, but you just couldn't do it.

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## PERSISTENCE



Do you tend to ask for help too soon or too late in the process? Give an example.

## PERSISTENCE



Describe a situation when you received criticism.

What made the criticism difficult to hear?  
Alternatively, what made the criticism helpful?

## PERSISTENCE



Consider a time when you faced a setback and reached out for help. Did you have a clear goal when you asked for guidance? In hindsight, might you have asked for help differently?

## PEOPLE



What might a sibling or close friend tell your team members about you?

(For example, how would they describe your strengths and less strong areas?)

## PERSISTENCE



When you find yourself discouraged by a setback, what's your next move?

## PERSISTENCE



When you encounter problems, do you look for a quick fix or the root cause of the problem?



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## PEOPLE



Given your past experience with groups/teams, what are some signs that teams are functioning effectively?

## PEOPLE



When a miscommunication inevitably happens, what are three ways to get things back on track?

## PEOPLE



Given your prior experiences working with others, how do you tend to handle yourself when things don't go your way? What do you need most in those situations?

## PEOPLE



Choose an engineering or design process. How would you explain it to a fifth-grader, high school science teacher, and professional in the field?

## PEOPLE



Consider the various roles played by members of your team. Choose one. Briefly describe the biggest challenge to fulfilling the role successfully. (Repeat with other roles if you like).

## PEOPLE



On a scale of 1 to 10, how confident are you in your ability to resolve conflicts (with 1 being "no way" and 10 being "got this")? What's one thing that could improve your score?

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## PEOPLE



Would your fellow team members say that you're good at meeting deadlines? Why or why not?

## PEOPLE



What are three ways to demonstrate respect for a team member?

## PEOPLE



Choose a system or component of your design.  
How would you explain it to a fifth-grader, high school science teacher, and professional in the field?