# Five Causal Reasoning questions for everyday problem solving

The following 5 questions can be used to apply causal reasoning in everyday, problem solving situations:

1. What is the problem?
2. What do we think caused the problem?
3. What evidence do we have about the causes?
4. What solution(s) do we have in mind?
5. How will the solution(s) address the causes of the problem?


The following guidance should help you unleash the power of these questions by describing the kind of conversation that should occur:

1. What is the problem?
    - A problem is something undesirable that happened and was different than what we expected to happen. The answers to this question should include a description of "what actually happened" (the sequence of events) and "what we expected to happen in that situation".
2. What do we think caused the problem?
    - This question digs deeper into the causes of the problem. It is important to focus on what did happen or what was actually done that caused the problem (using causal reasoning), and to avoid explanations that focus on what did not happen or what "should" have been done (using defensive reasoning).
    - Ask "Why" several times to discover whether we know enough about the causes to solve the problem.
3. What evidence do we have about the causes?
    - Ask this question to assess how certain we are that we know the causes of the problem. Before considering solutions, we need to be to make sure we have good quality data and have done enough analysis to verify the causes of the problem. You may find that the explanations of what caused the problem are based on little evidence or that other causal theories need to be considered.
4. What solution do we have in mind?
    - This question follows after the first 3 questions have been satisfactorily answered. The purpose is to be clear what solutions or actions we have in mind and what these solutions look like when completed.
5. How will the solution address the causes of the problem?
    - It's important to test whether the proposed solutions would be "corrective", i.e. whether the solution would address the causes of the problem and actually prevent the problem from happening again in the future. A good way to check whether the solution is corrective is to imagine that the solution had already been in place before the problem occurred and ask yourself exactly how the solution would have prevented the problem and what would have happened instead (how the solution would have interrupted the sequence of events that occurred to create a better outcome).
    - If the solution proves not to be corrective, a different solution should be considered.
    - It is also important to check whether the solution could have any unintended or undesirable consequences. A solution that corrects a cause could still create an undesirable outcome if we are not careful.