Creative and Practical Problem Solving

 Scoring Criteria

| Performance Indicator | Beginning | Developing | Proficient | Expanding |
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| 1. Observe and evaluate situations in order to define problems.
 | I can * Make observations about a problem situation.
 | I can* Identify variables that influence a problem situation.
 | I can* Articulate the problem and identify constraints, based on observations and collect related information from multiple sources.
 | I can* Analyze situations to define complex problems and explain their relevance within the world;

Or* Create alternative evidence that expands upon proficient.
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| 1. Frame questions, make predictions, and design data collection and analysis strategies.
 | I can * Ask questions about a situation or phenomenon.
 | I can* Take information into consideration when making predictions.
 | I can* Identify tools and design procedures needed for collecting, managing, and analyzing information.
 | I can* Justify my data collection strategy by analyzing strengths and weaknesses;

Or* Create alternative evidence that expands upon proficient.
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| 1. Identify patterns, trends, and relationships that apply to solutions.
 | I can* Determine whether my data are sufficient or if I need to gather more data.
 | I can* Identify the most important or relevant data I have gathered.
 | I can* Explain patterns and/or trends (including outliers) in the data and the relationship to the proposed solution.
 | I can* Prioritize the significance of the patterns, trends, and relationships as they impact the design of possible solutions;

Or* Create alternative evidence that expands upon proficient.
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| 1. Analyze, evaluate, and synthesize evidence, arguments, claims, and beliefs.
 | I can * Identify evidence to support a claim or argument.
 | I can* Summarize the relationship between the evidence and the argument or claim.
 | I can* Analyze, synthesize, and cite evidence to develop a claim or argument.
 | I can* Evaluate the strengths and weaknesses of the argument;

Or* Create alternative evidence that expands upon proficient.
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| 1. Generate a variety of solutions, use evidence to build a case for best responses, critically evaluate the effectiveness of responses, and repeat the process to generate alternate solutions.
 | I can* Identify multiple solutions.
 | I can* Use evidence to identify a possible solution and its strengths and weaknesses.
 | I can * Generate and consider a range of solutions and compare the strengths and weaknesses of each, using evidence to justify the choice of solution.
 | I can* Critique the potential effectiveness of a range of solutions with careful consideration of real-life constraints;

Or* Create alternative evidence that expands upon proficient.
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| 1. Identify opportunities for innovation and collaboration.
 | I can* Identify a real-life situation where the needs were met through innovation and/or collaboration.
 | I can * Identify an opportunity for new thinking or creative problem solving.
 | I can* Identify a range of peers and field experts/ organizations to support my creative problem solving.
 | I can* Seek out a variety of experts, peers, experiences, or sources of information that could add additional viewpoints or insights;

Or* Create alternative evidence that expands upon proficient.
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| 1. Use a range of tools, including technology, to solve a problem.
 | I can* Identify a range of appropriate tools, including digital technology, to help solve a problem.
 | I can* Use a tool to solve a problem and articulate and/or explain why the tool is the best choice.
 | I can* Use multiple tools together to effectively solve a problem.
 | I can* Develop generalizations about the tools used and apply them to new problems or situations;

Or* Create alternative evidence that expands upon proficient.
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| 1. Persist in solving challenging problems and learn from failure.
 | I can* Make an attempt to solve a challenging problem.
 | I can* Learn from trial and error how to improve my efforts over time.
 | I can* Learn from experience and continue to put forth effort even after trying several times.
 | I can* Apply my learning and adapt to new challenges;

Or* Create alternative evidence that expands upon proficient.
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