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| All Projects **MUST** complete this research plan template PRIOR to any experimentation. This will be used to review any safety & questions about methods to help guide your experiment. It is also used as a reference for State project approval for entry. The research plan should NOT include experimental data, results, or conclusions. |
| Student Name:  | Grade |
| School: | Teacher: | Year:  |
| Rationale: Include a brief synopsis of the background that supports your research problem. Why is this research important, and what (if any) societal impact might it have?  |
| Question/Problem: |
| Engineering Goal/Expected Outcome/Hypothesis: |
| Materials: List all materials to be used in experiment/data collection/analysis.  |
|  |  |  |  |
| Tools: List all the tools to be used for construction, set-up, or data collection.  |
|  |  |  |  |

Procedures: Detail all procedures and experimental design to be used for data collection. If you use a kit or any type of ready-to-use or assemble system, the procedures MUST be detailed here. **Safety risks/mitigation and any disposal procedures should be INTEGRATED into the procedures.**

Use the space below for your procedures in numerical order of process: *(this is typically 1-4 pages)*

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| Bibliography: (APA Format - Use [CitationMachine](http://www.citationmachine.net/)) List at least five (5) major references (e.g. science journal articles, books, internet sites) from your literature review. **Human, vertebrate, and PHBA studies must include one of the ISEF suggested references from pp 23-25 of the** [**ISEF Rulebook.**](https://www.societyforscience.org/isef/international-rules/rules-and-guidelines/) All bibliographies must include the ISEF rulebook, for a minimum total of six (6) sources.  |
| ISEF FY25 Rulebook: ISEF International Rules for Pre-College Science Research. (2024). *Society for Science*. societyforscience.org. Retrieved from https://www.societyforscience.org/isef/international-rules/rules-and-guidelines/. (SSEF, 2024) |
| Source 1 |
| Source 2 |
| Source 3 |
| Source 4 |
| Source 5 |
| SDS Citations for ALL Chemicals used: <https://www.msdsonline.com/sds-search/>  |
| Safety Reference |