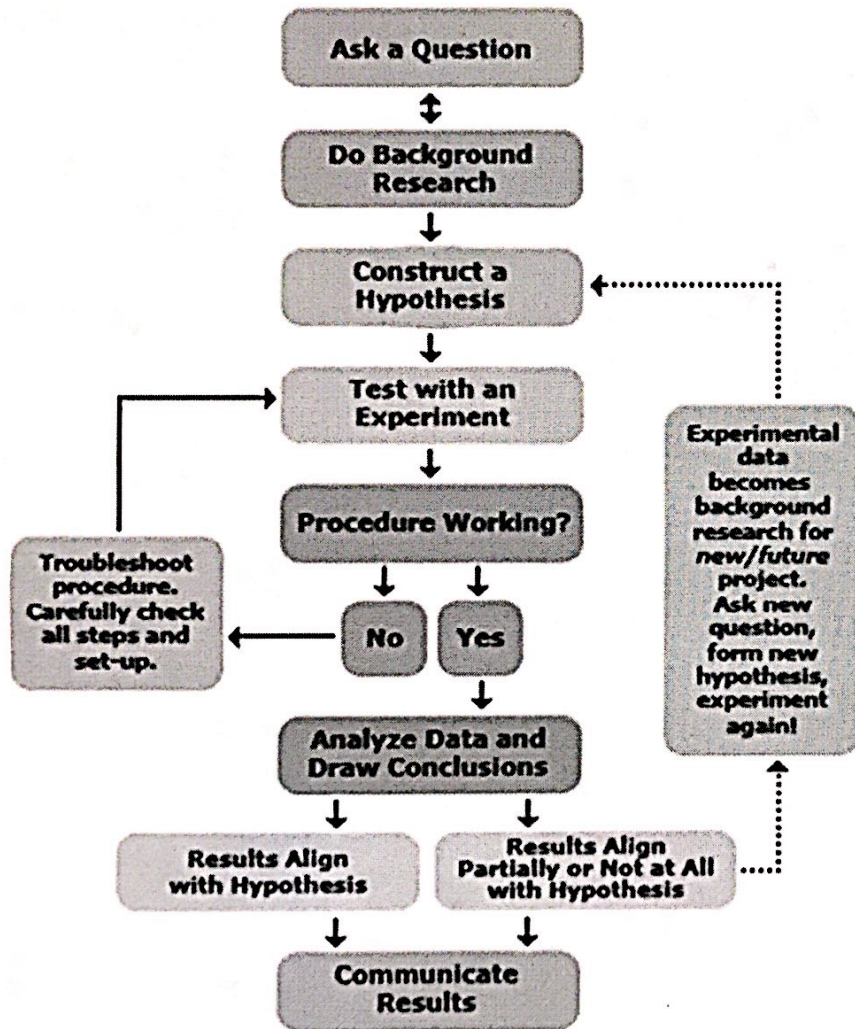
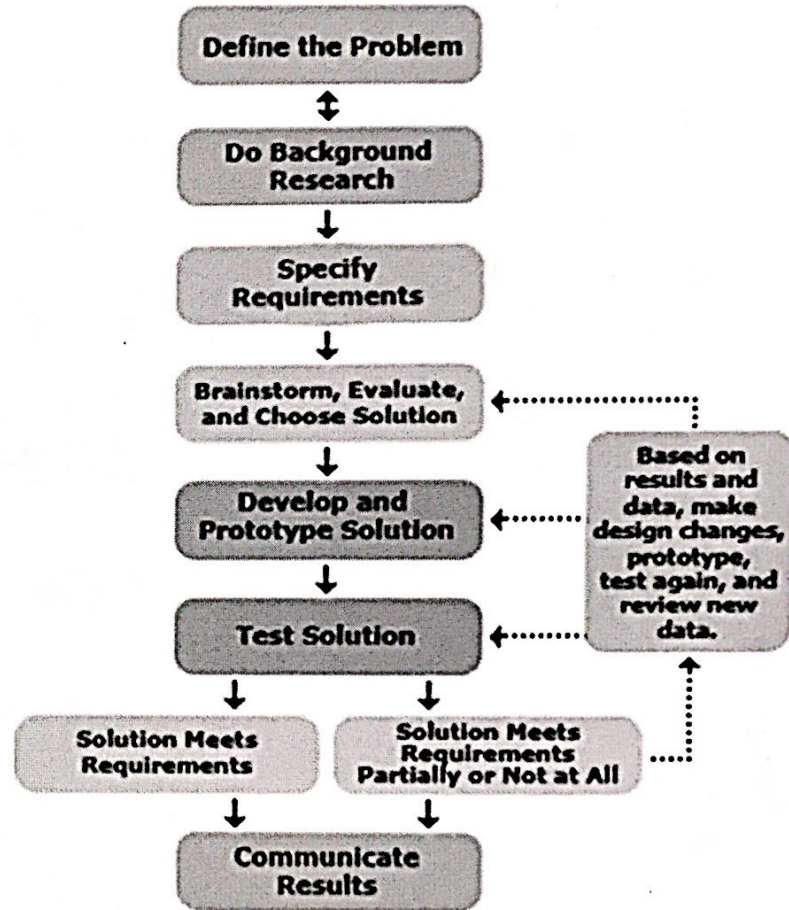


## Scientific Method



## Engineering Method



| Scientific Method  | Engineering Method   |
|--|--|
| Title page.  | Title page.  |
| Abstract.  | Abstract.  |
| Table of contents.   | Table of contents.   |
| Question, variables, and hypothesis.                             | <p>Statement (instead of a question) about the need to design something that fulfills xyz need.</p> <p>Summary of what will be built to address the need and the specific design specifications the solution will fulfill (instead of a hypothesis).</p> <p>Specifications against which the solution will be judged successful or not (instead of variables).</p> |
| Background research. (Research paper written before experiment.) | Background research. (Research paper written before starting to identify the problem. This research documents what solutions exist, what has been tried, and what science might be applied to a new approach.)   |
| Materials list.  | Materials list.  |
| Experimental procedure.  | Documentation of how the student built and tested the prototype(s) or finished solution.   |
| Data analysis and discussion.                                    | Results of field testing of prototype(s) or finished solution. What was observed and/or measured? How did the prototype(s) or finished product measure up against the original design specifications? Did it achieve the goal? Show the data either way.   |
| Conclusions.   | How successful was the prototype(s) or finished solution? Did it perform as intended? Why or why not? What were the design and implementation challenges?  |
| Ideas for future research.                                       | What could have gone better in the design process? How could the design be improved with further prototyping/testing?  |
| Acknowledgements.  | Acknowledgements.  |
| Bibliography.  | Bibliography.  |
| Project display board.   | Project display board.   |