**ELEMENTS OF A NON-EXPERIMENTAL/RESEARCH PROJECT**

*   **Background Research**: helps you understand your topic; helps you come up with a problem/testable question to investigate in your project.
*   **Problem/Testable Question**: the specific question you will investigate in your research.
* *e.g. How do archaeologists date wood samples?*
*   **Hypothesis or Thesis**: Write a statement and give a point of view based on your background research.
* *e.g. “Dendrochronology (tree ring dating) is combined with Carbon-14 dating to determine the actual calendar age of a tree.”*
*   **Research:** To carry out extensive research on your subject, consult a wide **variety** of sources: books, internet, scientific journals, and interviews with experts in the field. If you uncover a controversy, it is important to note, explore and understand both sides of the issue.
*   **Scientific Principles:** Make sure you understand and explain the scientific principles of the subject/problem you are studying. Often a small demonstration of the scientific principle or “Law” is valuable.
*   **Concepts**: Explore what the key points, problems and issues are related to your topic. Ensure that your information is accurate and complete for your level of knowledge and understanding. Relevant graphs or tables from research may help to summarize your concepts. Be sure to give proper credit (cite where you found it from) if you use someone else’s graph/table.
* + 1.   **Results**: Keep a complete record of research, research materials, thoughts and questions in your logbook. This needs to be done daily.
*   **Conclusion**: the final outcome of your investigation as supported by the research; relate your conclusion directly to your initial thesis/hypothesis.
*   **What Next?** Discuss how you could take your research further, or what experiments you could do to support your conclusion. Include an explanation of why people would be interested in knowing your results and how they can be used.