**FORMAL ASSIGNMENT 3: PROCEDURAL DESCRIPTION**

**Assignment Description**

Students will create a set of procedures, listing the steps for conducting a short research project.

**DUE DATES**

* PEER REVIEW: Week 6, Thursday
* FINAL DOCUMENT: Week 7, Tuesday

**RESOURCES**

* *Engineering Communication*: Chapter 3 (Principles 7-10)
* “How to Write Procedural Descriptions” document in Formal Assignments folder on Blackboard

**ASSIGNMENT GOALS**

Students will demonstrate the ability to:

* Write a succinct, accurate procedural description of an engineering experiment using appropriate language and structure for use by middle school students.
* Apply four new principles from the textbook:
  1. Frame the knowledge
  2. Build visible structure
  3. Direct the reader rhetorically
  4. Make effective transitions.

**RHETORICAL SITUATION**

The middle school science teacher has read and approved your Summary of Project Findings on the load-bearing ability of a straw when used as a cantilever beam. Now he/she has hired you to create a set of procedures listing the steps students can follow to conduct the experiment themselves.

* **Audience –** Middle school students.
* **Audience technical background –** Have completed6th grade science and math.
* **Purpose –** To create a procedural document that is clear, concise, and well-organized, using language and terminology appropriate for 7th grade science students.
* **Deliverable –** A 2-3 page procedural document.

**REQUIRED COMPONENTS**

* **Introduction**
* Introduces the purpose of the document.
* Briefly explains the function of a cantilever beam.
* Briefly describes the goal of the experiment.
* Previews the contents and organization of the process instructions.
* **Instructions**
* Include enough detail so that students understand what actions to take.
* Include drawings and pictures to help students visualize each step.
* Group steps logically to simplify procedure.
* Instruct the students to perform the test at 6 different cantilever lengths
* **Table for results**
* Create a table for students to use when collecting their data. Give clear and complete instructions for using the table, including, for example, what units to record and how to convert to final numbers for the graph.
* **Graph for results**
* Create a graph for students to use when plotting their results. Provide labels and appropriate quantities for the X and Y axes. Give instructions for using the graph.
* **Conclusion**
* Guide the students in thinking about their results. Create a list of questions to consider about the final graph. What has the experiment helped the students learn about cantilever beams? Remember that the conclusion should tie the whole paper together and leave the students with the most important "takeaway" points.

**REQUIRED FORMAT**

* Times New Roman font, 12 point for headings and body.
* 3-line, single-spaced header on page 1 (See Formatting Tips document in Course Documents folder):
* Student name
* Writing 327
* Date
* Last name and page number in the top right corner on second and subsequent pages (See Formatting Tips document in Course Documents folder).
* Bold font for headings. Primary headings in all caps, secondary headings in title case caps.
* Title centered and bold: **Procedural Description: Finding the Load-Bearing Ability of a Straw When Used as a Cantilever Beam**
* Single spaced block paragraphs. No indentations, 1 blank line between paragraphs.
* No default extra white space between paragraphs (See Formatting Tips document in Course Documents folder).
* Bulleted lists must use parallel construction.
* Labeled table and graph.
* Introduce table and graph in text.
* Binding: Stapled.