

- I. Visual Analysis do not take apart yet.
 - a. Using a digital camera, take at least three pictures of the product from different angles, save images to folder on server.
 - b. In WORD, create a caption under each image that identifies the particular object view.
 - c. Next to each image, write a description of the visual <u>design principles and elements</u> that are evident from that particular view.
- II. Functional Analysis do not take apart yet
 - a. What is the purpose or primary function of the object?
 - b. Who is the manufacturer, how much did the object cost originally, and date object was acquired.
 - c. Photograph and label the exterior components (in WORD). If you are not sure what a particular component is called, then make a logical guess.
 - d. Make an educated guess as to how this product operates.
 - e. Prepare a black box model as below in your word file.

| Inputs F | Product Function | on Output | |
|---------------|------------------|-------------|--|
| Staples | | Noise | |
| Loose paper | Fasten paper | Heat | |
| Applied force | | Bent staple | |

III. Structural Analysis – yes, now but SLOWLY

a. Carefully disassemble your product and identify <u>each part by name</u> by making a table, see sample below. Use excel!

| Part# | Part Name | Qty | Function | Material | Interaction with Other Parts |
|-------|--------------|-----|----------|----------|---------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |

- b. Take digital photos of parts, several small parts can go on one photo. Each photo with a corresponding number to the chart for identification.
- c. Take a photo of the entire object "exploded" and ballooned in WORD see my examples if you need help.
- IV. Material Analysis & Manufacturing analysis See me about what part(s) from your project you need to research and report on.
- V. **Product improvement** <u>other than visual elements</u>, what would you change about this product to make it better or to repair it? SKETCH ideas and put in your report. You can scan it, or take a photo!

VI. Deliverables - REPORT

a. Cover sheet with group member's names. Each section above must be titled correctly. Submit on or before due date in **<u>BLACK AND WHITE</u>**. I will edit and return so you can update and make a color copy for each group member. -12 points for printing in color first.

Special Note: stay on task, clean up, play nice. I am giving daily work ethic grades.