

# Materials Technology

## Technical Report Format

### **Introduction** (*narrative format*)

- Introduce self
- Introduce school
- Introduce course (Offer your description)

### **Project Description:**

- General description (class assignments, your assignment)
- Time line
- Material requirements (testing materials, construction materials)
- Size limitations

### **Design process:**

- Initial ideas ( How did you solve problems as they arose )
- Sources
- Functionality
- Material choices

### **Design documentation:**

- Initial design drawings (sketches)
- Revision drawings
- Final (as built) Drawings
- Discuss how your final design came about, and the revisions or development steps you went through. (very important)

### **Manufacturing:**

- where was your project constructed
- what tools and processes were incorporated
- what materials did you choose, what were there intended use, and how did you use them.

## **Testing results:**

In chart form list all of the testing data collected from your machine.

The testing sample will be delivered to you in three different states

1. Ambient or room temperature
2. Refrigerated to 30 degrees Fahrenheit
3. Frozen to 0 degrees Fahrenheit

In graph form chart out all of your stress and strain for each sample

-The stress should be on y axis and the strain should be on the x axis.

-Label the elastic range.

-Label the elastic limit

-label the plastic range

-If possible label the fracture or failure point

## **Conclusions:**

In the last section of this report you need to get copies of every ones charts and compare there results against yours. From that draw conclusions about the physical properties of the sample at different states or temperatures.