**LAB #3: Structural Efficiency 2.0**

**Materials**:

 - 4 sheets of Newspaper (to start) - 60 cm Masking Tape - Glue - Scissors - Weights

**Objective**:

 To build the most efficient table from newspaper

**Criteria**:

 Minimum height = 20cm

 Maximum height = 30cm

**Procedure**:

 1. Create a design plan with sketches (3D if possible).

 2. Construct your structure.

 3. Test your prototype.

 4. Identify and make improvements.

 5. Calculate the mass of your final structure.

 6. Test your final structure!

**Design Plan & Sketches**

**Review**:

1) How did you decide on what to build?... Research?... Trial and Error?... Copied Someone Else’s?... Guessed?... \_\_\_\_\_\_\_

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2) Draw a diagram of your original design compared to your final design.

 Original Final

3) Explain the improvements made to your original design. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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4) How did your structure fail? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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5) Calculate your structure’s Structural Efficiency.

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 live load dead load structural efficiency

6) If you were to complete this challenge again, what would you do differently? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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7) Overall, how efficient was your structure?

 0 = not efficient 1 = somewhat efficient 2 = efficient 3 = very efficient