**Bridge Model Making Data Sheet**

I. Measuring Your Bridge

Directions: Look at your bridge and determine the following.

1. What is the approximate length of your bridge?
2. What is the approximate width of your bridge?
3. What is the approximate weight of your bridge?
4. What is the height?

You may guess at the height of the bridge. Only an approximation.

II. Scale Your Drawing

1. When objects are too small or too large to be drawn or constructed at actual size, people use a scale drawing or a model.
2. The scale is the relationship between the measurements of the drawing or model to the measurements of the object. Scale is a system of proportion.
3. For example, the model you are creating may represent a small truss or suspension bridge or a large truss or suspension bridge. Without knowing the scale, no one could build a bridge from your model.
4. Scale requires the use of geometry and may be written as a scale factor, which is a ratio of the length or size of the drawing or model to the length of the corresponding side or part of the actual object. For example, if you measured that your bridge was 48 feet long and your model is 12 inches long, you would say that 12” = 48’ scale (your model is 4 times smaller than your bridge).

III. Reflection Questions

1. Why is it important for designers to build models?
2. Why is paper a good medium for designing models?
3. Misc. sketches and/or ideas:

Team Member #1:

Team Member #2:

Team Member #3: