**Choosing a Scale Worksheet**

1. Measure and record important dimensions of your object. Pick appropriate units and record them. The *dimension column* might include height, length, width, radius, etc. In the *measurement column*, record the measured number. In the *units column* indicate the units of your measurements.

*Note: You do not necessarily need to fill in all rows; just make sure you get all the information you need to build an accurate model.*

|  |  |  |
| --- | --- | --- |
| **Dimension** | **Measurement** | **Units** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Choose a scale factor and then calculate the scaled dimensions of the object. Do this for two different scale factors that you could potentially use for your project.

Scale factor: \_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Dimension** | **Original Measurement****(indicate units)** | **Scaled Measurement****(indicate units)** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Scale factor: \_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Dimension** | **Original Measurement****(indicate units)** | **Scaled Measurement****(indicate units)** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Consider the scaled measurements you calculated for the two different scale factors and decide which is more reasonable to use for your final project. Explain your logic.
2. **Engineering Drawings:** Now that you have chosen an object and a scale factor for the final project, produce engineering drawings of your object.
* Make at least two different drawings, such as views of different sides, base or top of the object.
* Do all the drawings on graph paper.
* Pick a scale for your drawing. Choose a scale so that the object fits on one piece of paper and takes up most of the paper. Example drawing scale: one graph paper square = 1 inch.
* Include on your drawing your name, drawing title and scale.
* See the teacher-provided example engineering drawing, which is also reproduced below in smaller scale.

**