Introduction to Scale

Architects and engineers use scale to draw plans that are easy for others to interpret. A scale drawing uses ratios to make an object smaller or larger than the real object. To figure out scale, you need to set up a ratio in the form of a fraction and then divide the length of the drawing by the actual length. For example, if the length of the deck in a drawing is 2 inches, but the actual length of the deck is 14 feet, the scale would be 1 inch = 7 feet.

Actual length: 14 feet
Length in drawing: 2 inches
Scale: 1 inch = 7 feet

Directions: Work with your team to complete the following exercises.

1. Choose a piece of furniture in your room to measure. Measure the length and width of the item and write down the measurements.
   
   Length = _______________
   
   Width = _______________

2. Choose an appropriate scale. Remember to choose a scale large enough to produce a good drawing, but small enough to fit in the space provided below. (For example if the length of a table is 5 feet and the width is 3 feet an appropriate scale may be ½ in. = 1 ft.)
   
   My scale is ___________ = ___________

3. Create a scale drawing of your chosen object below.

4. Measure the actual length and width of another item in your room, and then create a scale drawing of it. Complete the drawing and include the scale.