Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Aluminum Foil Lab**

Background: Aluminum foil can be purchased at grocery stores with various prices and boasting different properties such as super durable. Is there a difference in these Aluminum foil samples?

Pre-Lab Questions:

1. Find the density of aluminum foil on the reference table, table S. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Make observations about the samples on Aluminum foil.

Procedure and data:

1. Each group will obtain one sample of aluminum foil. Find the mass of your sample.

Mass : \_\_\_\_\_\_\_\_\_\_\_

1. Using the density from the pre-lab, and your mass, calculate the volume of your sample. Show work and place your answer in the blank.

Work:

Volume: \_\_\_\_\_\_\_\_\_\_\_\_

1. Find the length and width of the aluminum foil sample.

Length: \_\_\_\_\_\_\_\_\_\_\_

Width: \_\_\_\_\_\_\_\_\_\_\_

1. Using the volume, length and width or your sample, find the thickness (height) of the sample. Show your work and place your answer in the blank.

Work:

Height: \_\_\_\_\_\_\_\_\_\_\_

1. Go to other groups that have different samples than you. Are their thicknesses the same or different?

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Conclusions:

1. Imagine you have shrunk down to the size of an atom. In the spaces provided, draw how you think a thin sample of aluminum foil looks compared to a thick sample. Use circles to depict the aluminum atoms.

**Thick Foil**

**Thin Foil**

1. The thin foil and thick foil boast the same length and width of the container, but the thin goes for $1.33 per box, and the super duty thick foil goes for $2.00 per box. Explain which you would by and why, using evidence from the lab.

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