Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

**Density Activity**

**Pre-Activity Questions**

1. Define density:
2. What is the formula for density?
3. What are the units for density?
4. Define physical property:
5. Can a metal be identified by its density? How?
6. Formula for % Error

**Part I: Calculate the density for each metal.**

**\*Remember to record the correct number of sig. fig. from the instrument’s scale (what you can read plus an estimate).**

**\*\* Remember the rounding rules for addition, subtraction, multiplication and division.**

**Station 1: SHOW WORK**

**Mass \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Volume\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Density\_\_\_\_\_\_\_\_\_\_\_**

**Station 2: SHOW WORK**

**Mass \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Volume\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Density\_\_\_\_\_\_\_\_\_\_\_**

**Station 3: SHOW WORK**

**Mass \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Volume\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Density\_\_\_\_\_\_\_\_\_\_\_**

**Part II: The identity of a metal can be determined from its density. Use the “accepted values” listed on the board to determine the identity of the metals.**

**Station 1: Metal is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Station 2: Metal is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Station 3: Metal is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part III: Calculate % Error for the measured density of each metal.**

**Station 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SHOW WORK**

**Station 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SHOW WORK**

**Station 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SHOW WORK**

**Part IV: Challenge: Determine the mass of the lead sample.**

**(Don’t use the balance.)**

**You can only use the materials present, (graduated cylinder, ruler, lead).The density of lead is 11.4 g/ml.**