

Name _____ Period _____ Date _____

Lab 103: Mass, Matter and the Atom

- **Question: How is mass described?**

- **Procedure**

- 1. Estimating mass**

Pick up a full (1 liter) bottle of soda to get a sense of the amount of mass in a kilogram. Next, pick up a book such as your textbook. Use the comparison to estimate the mass of the book.

- 2. Estimating Mass: Estimate the mass of the following objects in kilograms**

- a. Your pencil _____
 - b. Your shoe _____
 - c. A cement block _____
 - d. Your book _____
 - e. A paper clip _____
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- 3. Measuring Mass: Measuring the mass of each object below and express their mass in kilograms. Be sure to show any conversions.**

- a. Your pencil _____
 - b. Your shoe _____
 - c. A cement block _____
 - d. Your book _____
 - e. A paper clip _____
-

4. Scientific Notation: Rewrite your measurements from 3 above using scientific notation

- a. Your pencil _____
 - b. Your shoe _____
 - c. A cement block _____
 - d. Your book _____
 - e. A paper clip _____
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5. Look up the mass of each of these objects and write it both using scientific notation and as a decimal (ordinary) number.

	Scientific Notation	Decimal Number
a. An atom of hydrogen	_____	_____
b. An atom of uranium	_____	_____
c. A grain of sand	_____	_____
d. An soccer ball	_____	_____
e. The Sun	_____	_____
f. The Planet Earth	_____	_____
g. The Earth's Moon	_____	_____
h. An electron	_____	_____
i. A proton	_____	_____
j. A neutron	_____	_____