## Science: Matter and Energy--Study Sheet for Test 1

**Know the following terms:**

* Mass
* Matter
* Density
* Volume
* Hypothesis
* Accuracy
* Precision
* Theory
* Absolute zero
* Specific gravity
* Mathematics
* Technology
* Energy
* Force
* Dimensional analysis
* Physics
* SI system of measurement
* Causality

**Know the following concepts:**

* Chemical change vs. physical change
* Scientific notation
* Determining significant figures
* Standard units used in the SI or metric system
* Steps of the scientific method
* Three or four limitations of science

**Practice problems**

1. How many significant figures does each of these numbers have?
   1. 568
   2. 0.012
   3. 400,005
   4. .150
   5. 400.0
   6. 5000
   7. 5000.00
   8. .0496
2. Do the following calculations and give the answer with the correct “sig figs.”
   1. 78.4 +60
   2. .0014+9.000
   3. 5,000+680,000.00
   4. 12 x 80
   5. 987.00 x .0025
   6. 6.2 x 9.50
3. Write the following numbers in correct scientific notation:
   1. 580,000
   2. 89,357,000,000
   3. .000582
   4. .004856234
   5. .00000000000000005