Topic: Average Atomic Mass	Name:	Date:

Questions/Main Ideas:	Notes:

Warm-Up Question: Ms. Jones is a math teacher who uses weighted categories for her class grades. **Tests count as 50%** of the overall grade; **quizzes count as 30%** of the grade; and **assignments count as 20%** of the grade. Suzie does well on her assignments and has a 95 for that category overall. Her quiz average is an 87. However, her test average is a 73. What is Suzie's grade for the class? *(show all work below)*

Review: What is mass number?	**Mass number** is equal to
	What is the mass number of an atom with 5 protons and 6 neutrons? How would we write it?
	How many neutrons are in an atom of ^{13}C? (carbon-13)

What is *average* atomic mass?	Most elements have more than one _____ • Isotopes are atoms of the same element that have different numbers of _____ • Therefore, they will have different _____ _____ So, the _____ atomic mass must be somewhere ____ _____ the mass numbers of all of the different isotopes for a particular element. BUT, we don't have _____ amounts of each isotope! Some isotopes are more _____ than others. So, the average will be affected…

What is **abundance**?	**Percent abundance** of an isotope is
	Relative abundance is

How is average atomic mass calculated?	**Relative (average) atomic mass** of an element is the _____ *average* of the masses of all the _____ of the naturally occurring element; this is the number found on the _____ _____ To find the average atomic mass, multiply each isotope's _____ by its _____ abundance, then add them all together for each isotope.

Example 1: Average Atomic Mass of C *(show work* →*)*

Isotope	Percent abundance	Atomic mass (amu)	
^{12}C	98.9%	12	
^{13}C	1.1%	13	

Example 2: Average Atomic Mass of Cl *(show work* →*)*

Isotope	Percent abundance
Chlorine-35	75.76%
Chlorine-37	24.24%

Summary and Question(s) I have: