Name: _____ Date: _____

Water in the Atmosphere

The atmosphere is made of certain gases. The gases have weight. Complete the chart below and determine the atomic weight of the gases of the atmosphere. Use your reference table to help you.

Listed below, not in order, are the gases of the atmosphere. Fill-in the blanks. This table will yield an atomic weight of air of 100 molecules with absolutely no water vapor in it. Please use CO_2 as 1%.

Atom	Weight
Carbon	12
Hydrogen	1
Oxygen	16
Nitrogen	14

Molecule	**Molecular Formula**	**Molecular weight**
Carbon Dioxide - CO_2	1 carbon, 2 oxygen	
Oxygen - O_2	2 oxygen	
Nitrogen - N_2	2 nitrogen	
Water Vapor - H_2O	2 hydrogen, 1 Oxygen	

Name of Gas	**% of Gas in Atmosphere**	**(Multiply)**	**Molecular weight**	**Total**
Carbon Dioxide		X		1.
Nitrogen		X		2.
Oxygen		X		3.
			Total	4.

Water vapor in the air is at a maximum of 5%. We still want to measure what the weight of 100 molecules (100%) so we need to remove the correct amount of molecules. In the chart below, fill out as you did above, but subtract column 3 from column 2.

1	2	3	4	5	6
Name of Gas	**% of Gas in Atmosphere**	**Multiply by .05**	**(-) column 3 from 2**	**Molecular weight**	**TOTAL**
Carbon Dioxide					
Nitrogen					
Oxygen					
Water Vapor	Max 5% Times by 5				
				TOTAL	