# Open Chemistry Online – Post Quiz #3 (OpenStax Ch. 2.4-2.6)

1. Carbon forms two naturally occurring isotopes: Carbon-12 and Carbon-14. Which of these two isotopes occurs the most abundantly? Support your answer with data from the periodic table for full credit.
2. On a far-away planet, Carbon-12 (C-12 mass = 12 amu *by definition*) occurs with an abundance of 88.000%, while Carbon-14 (C-14 mass = 14.00324 amu) is the only other isotope. Calculate the atomic mass of Carbon on this planet.
3. State the chemical formulas for the following species. Feel free to consult the included table of polyatomic ions

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| Carbon monoxide:\_\_\_\_\_\_\_\_\_\_ | Magnesium hydroxide:\_\_\_\_\_\_\_\_\_\_ |
| Phosphourous pentafluoride:\_\_\_\_\_\_\_\_\_\_ | Ammonium phosphate:\_\_\_\_\_\_\_\_\_\_ |
| Sodium nitride:\_\_\_\_\_\_\_\_\_\_ | Lead (II) acetate:\_\_\_\_\_\_\_\_\_\_ |

A picture containing timeline

Description automatically generated

1. Describe the key difference in chemical structure of ionic vs. molecular compounds. How are these differences expressed in the naming conventions for each?