8th Grade Science
Introduction to Matter Book

Chapter Four: Introduction to Atoms (pg 82-94)

Answer each of the following questions on a piece of notebook paper, in a complete sentence, restating the question in your answer. Failure to follow these rules will result in the student having to rewrite the assignment to earn their points.

1. What does the word atom mean?
2. In comparison to other objects, how big is an atom?
3. What particles make up an atom?
4. Why don't atoms have an electrical charge?
5. How can a positively charged atom be created?
6. How can a negatively charged atom be created?
7. How is it possible for some atoms to have a different number of neutrons than it has protons and electrons?
8. If an atom has 24 protons, what is its atomic number? Explain.
9. What makes some isotopes radioactive?
10. Why aren't electrons included in the mass number of an element?
11. How is the number of neutrons found for a given element?
12. Calculate the atomic mass of boron, which occurs naturally as 20% boron-10 and 80% boron-11.
13. Calculate the atomic mass of rubidium, which occurs naturally as 72% rubidium-85 and 28% rubidium-87.
14. Calculate the atomic mass of silicon, which occurs naturally as 92% silicon-28, 5% silicon-29 and 3% silicon-30.