**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Physical Science Chapter 4**

**Atomic History and Structure Practice**

1. **Describe the contributions to the atomic model by the following scientists:**
	1. **Democritus**
	2. **Thomson**
	3. **Rutherford**
	4. **Schrodinger**
	5. **Chadwick**
2. **What did Dalton compare the atom to? (what was his model)**
3. **What parts of Dalton’s Atomic Theory are correct?**
4. **What parts of Dalton’s Atomic Theory are slightly incorrect and why?**
5. **What are the charges of the three subatomic particles?**
	1. **Protons have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge**
	2. **Neutrons have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_charge**
	3. **Electrons have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_charge**
6. **Which of the subatomic particle(s) make up the nucleus?**
7. **Which subatomic particle is the lightest?**
8. **Which subatomic particle makes up the most space of an atom?**
9. **Why does an atom stay together?**
10. **What gives an atom its properties?**
11. **Where are valence electrons found?**
12. **What are the energy levels called that electrons fill called?**
13. **How do electrons move from one energy level to a higher energy level?**
14. **The atomic number = the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
15. **The mass number = the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_+\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
16. **How do you find the # of electrons: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
17. **Protons and electrons are equal in an atom if:**
18. **What is an isotope?**
19. **I have 2 isotopes. Will they have the same number of protons and electrons?**
20. **I have 2 isotopes. Will they have the same number of neutrons?**
21. **Given the following picture to the right, answer the following questions**
	1. **Atomic #\_\_\_\_\_\_\_\_\_\_\_\_\_**
	2. **Mass # \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	3. **# protons\_\_\_\_\_\_\_\_\_\_\_\_**
	4. **# electrons\_\_\_\_\_\_\_\_\_\_\_**
	5. **# neutrons\_\_\_\_\_\_\_\_\_\_\_**
22. **Rubidium has two common isotopes, 85Rb and 87Rb. If the abundance of 85Rb is 72.2% and the abundance of 87Rb is 27.8%, what is the average atomic mass of rubidium?**
23. **Uranium has three common isotopes. If the abudnace of 234U is 0.01%, the abundance of 235U is 0.71% and the abundance of 238U is 99.28%, what is the average atomic mass of Uranium?**
24. **Find the molar mass of the compound CO2**

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