

Name \_\_\_\_\_

Chemistry

\_\_\_/\_\_\_/\_\_\_

**Part I: Match the name on the right with the correct statement on the left. You will use some names more than once.**

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|---|-----------------------|
| 1. _____ His model of the atom the Electron Cloud Model.  | <b>A. Aristotle</b>   |
| 2. _____ He discovered the nucleus.   | <b>B. Bohr</b>        |
| 3. _____ He put electrons into energy levels.   | <b>C. Dalton</b>      |
| 4. _____ He designed his atomic model after the solar system.   | <b>D. Democritus</b>  |
| 5. _____ He said atoms of different elements have different properties.                                       | <b>E. Rutherford</b>  |
| 6. _____ He believed that matter is continuous.   | <b>F. Stoney</b>      |
| 7. _____ He discovered the electron.  | <b>G. Thomson</b>     |
| 8. _____ He discovered that the atom is mostly empty space.   | <b>H. Schrödinger</b> |
| 9. _____ He used math to explain the location and energy of the electrons in an atom.                         | <b>I. Einstein</b>    |
| 10. _____ He is the Father of the Atomic Theory.  | <b>J. Planck</b>      |
| 11. _____ His model is called the quantum mechanics model.  | <b>K. Heisenberg</b>  |
| 12. _____ He fixed Rutherford's model.  | <b>L. de Broglie</b>  |
| 13. _____ He used polonium and gold foil in his famous experiment.  | <b>M. Millikan</b>    |
| 14. _____ He used a cathode ray tube to make his discovery.   | <b>N. Chadwick</b>    |
| 15. _____ He discovered the neutron.  |                       |
| 16. _____ He used the term "atomos" to describe an indivisible part at the base of all matter.                |                       |
| 17. _____ He named the electron.  |                       |
| 18. _____ He wrote that atoms of different elements combine to form compounds in a simple whole number ratio. |                       |
| 19. _____ He discovered the wave nature of the electron.  |                       |
| 20. _____ He designed a mathematical equation for the model of the atom.                                      |                       |
| 21. _____ He determined the charge of the electron.   |                       |
| 22. _____ He deduced the relationship between the energy and frequency of radiation.                          |                       |
| 23. _____ He proposed that light could be described as quanta of energy that behave as particles.             |                       |

**Part II: Write the last name of the atomic theorist that answers each of the following questions.**

1. \_\_\_\_\_ Which scientist is responsible for the quantum mechanics model?
2. \_\_\_\_\_ Which scientist used a cathode ray tube and a magnet in his famous experiment?
3. \_\_\_\_\_ Who designed the "Plum Pudding Model" of the atom?

4. \_\_\_\_\_ Who developed the formula  $E=hf$ ?
5. \_\_\_\_\_ Who is called the Father of the Atomic Theory?
6. \_\_\_\_\_ Who discovered the nucleus?
7. \_\_\_\_\_ Who wrote, "all matter is made up of indivisible, indestructible atoms"?
8. \_\_\_\_\_ Who put electrons in energy levels?
9. \_\_\_\_\_ Who discovered the electron?
10. \_\_\_\_\_ Who discovered that the atom is mostly empty space?
11. \_\_\_\_\_ Which scientist determined the charge of the electron?
12. \_\_\_\_\_ Which scientist proved the existence of neutrons?
13. \_\_\_\_\_ Who designed his model of the atom after the solar system?
14. \_\_\_\_\_ Who used Planck's constant to show how light can behave as a particle?
15. \_\_\_\_\_ Who is the first to write an atomic theory based upon experimentation?
16. \_\_\_\_\_ Who wrote that it is impossible to know exactly both the location and velocity of a particle at the same time?
17. \_\_\_\_\_ Who discovered that the nucleus has a positive charge?
18. \_\_\_\_\_ Who claimed that atoms of the same element have the same physical and chemical properties?
19. \_\_\_\_\_ Who was able to deduce the relationship between energy and frequency of radiation?
20. \_\_\_\_\_ Which theorist would NOT have been considered an atomist?
21. \_\_\_\_\_ What is the name of J.J. Thomson's model of the atom?
22. \_\_\_\_\_ Who was the first to suggest the idea of atoms?
23. \_\_\_\_\_ Whose atomic model consisted of negatively charged electrons inside an overall neutral atom?
24. \_\_\_\_\_ Who discovered the wave nature of the electron?
25. \_\_\_\_\_ Who used Planck's ideas to improve upon Ernest Rutherford's atomic model?
26. \_\_\_\_\_ Which scientist performed the "oil drop experiment"?
27. \_\_\_\_\_ Who developed the first mathematical model of the atom?
28. \_\_\_\_\_ Who discovered that energy emitted by a resonator could only take on discrete values?
29. \_\_\_\_\_ Who proclaimed that atoms cannot be subdivided, created or destroyed when involved in chemical reactions?