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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

History of the Atom

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| **Across****1.** High-vacuum \_\_\_\_\_\_\_-\_\_\_-\_\_\_\_ was a piece of equipment that Thomson used to study the nature of electric discharges**3.** Atomic \_\_\_\_\_\_ is the number of protons in the nucleus**5.** \_\_\_\_ model of the atom where electrons are orbiting the nucleus on different energy levels**6.** Determined the size of the charge on an electron**9.** Formed the Atomic Theory in 1808**13.** Atomic \_\_\_\_ is the average mass of the atom**14.** Discredited the ideas of Leucippus and Democritus**16.** Subatomic particle that has a positive charge**18.** Performed the Gold Foil Experiment**19.** Subatomic particle that are not located in the nucleus**20.** Came up with the "Quantum Mechanical Model" of the atom | **Down****2.** Rutherford's model of the atom **4.** Discovered neutrons**7.** His uncertainty principle states that we cannot measure the position and the momentum of a particle with absolute precision**8.** Millikan used this experiment to discover the charge on an electron**10.** \_\_\_\_\_\_\_\_ Ball Model showed atoms as solid, hard spheres**11.** Subatomic particle that has no charge**12.** J.J. who discovered electrons**15.** Plum \_\_\_\_\_\_\_ Model showed that the atom was roughly the same consistency throughout with negatively-charged electrons scattered about in it**17.** Defined an element as any substance that cannot be decomposed into a simpler substance |