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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 |