**DEVELOPMENT OF THE ATOMIC THEORY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientist** | **FROM** | **YEAR** | **CONTRIBUTION** |
| Democritus | Greece | 440 BCE | * Named the small particle that you would end up with if you cut something until it could not be cut again, * Thought atoms were small hard particles. * Made of a single material formed into different shapes and sizes |
| Aristotle | Greek | 384-322 BCE | * Disagreed with Democritus * He said ALL particles can continue to be broken in (Aristotle was wrong) |
| John Dalton | Britain | 1803 | * All substances are made of atoms * Atoms cannot be created, divided or destroyed (Wrong) * Atoms of the same element are exactly alike * Atoms join with other atoms to make new substances |
| J.J. Thompson  (Joseph John) | Britain | 1897 | * Small particles are inside the atom * Negative charged particles are in every atom (These are now called electrons) * Plum-Pudding model of an atom |
| Ernest Rutherford | Britain | 1909 | * Most of the atom is empty space * The center is tiny, extremely dense,positively charged part |
| Niels Bohr | Denmark | 1913 | * Electrons move around the nucleus in certain paths or energy levels * Electrons can jump from one level to another |
| Edwin Schrodinger | Austria | 1926 | * Electrons travel in areas not levels as Bohr suggested. * This is the accepted theory |
| Werner Heisenberg | Germany | 1925? | * Electrons move in areas not levels as Bohr suggested * This is the accepted theory |