

Name _____

Atomic Models Through History

The concept of the atom has evolved over time through the contributions of various scientists. These historical models of the atom have helped us understand its structure.

The ancient Greek philosopher Democritus proposed that matter is made up of tiny, indivisible particles called "atomos."

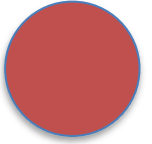
In the early 20th century, Ernest Rutherford conducted the gold foil experiment, leading to the discovery that atoms have a small, dense nucleus at their center.

Niels Bohr expanded on Rutherford's work with the Bohr model, where electrons orbit the nucleus in specific energy levels.

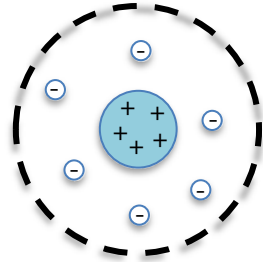
Today, the electron cloud model describes electrons as existing in regions of probability known as orbitals.

Questions

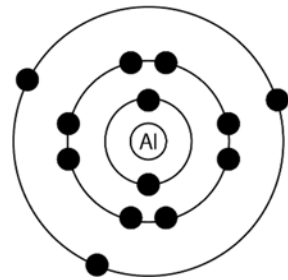
1. Who was the ancient Greek philosopher who proposed the concept of "atomos"?
2. What did Ernest Rutherford's gold foil experiment reveal about the structure of atoms?
3. Describe the Bohr model of the atom.
4. How does the electron cloud model differ from previous atomic models?
5. True or False: The Bohr model suggests that electrons move in fixed orbits like planets.



Democritus



Rutherford



Bohr