

# HISTORY OF AN ATOM WORKSHEETS

Name :


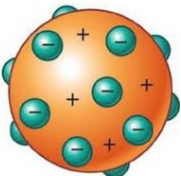
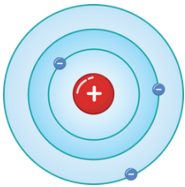

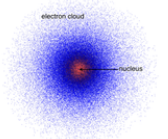
Date :

Write down the main idea of the atom for each scientist and answer other questions

Scientist & Year	Drawing of Model	Main Idea of the atom & evidence to support it	Other questions
John Dalton			What was meant by Dalton's rule of greatest simplicity?"?
J.J. Thomson			List three characteristics of the electron!
Ernest Rutherford			Because of Rutherford's gold foil experiment, the plum pudding model was replaced by the _____model of the atom
Niels Bohr			The Bohr model is compared to the Solar System. Write a statement that would help reader understand that comparison
Erwin Schrodinger			Define the term "atomic orbital"

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Write down the main idea of the atom for each scientist and answer other questions

Scientist & Year	Drawing of Model	Main Idea of the atom & evidence to support it	Other questions
John Dalton 1803		John Dalton thought that all matter was made of tiny particles called atoms, which he imagined as tiny spheres that could not be divided.	What was meant by Dalton's rule of greatest simplicity? elements would combine into binary & ternary compound but caused him to the assumption that formula for water was OH & amonia was NH
J.J. Thomson 1898		J.J. Thomson discovered the electron. He suggested a plum pudding model of the atom. In this model the atom is a ball of positive charge with negative electrons randomly distributed within it.	List three characteristics of the electron! <ul style="list-style-type: none"> <li>• heat</li> <li>• lighter</li> <li>• mass was the same</li> </ul>
Ernest Rutherford 1909		Divisible units composed of positive charges concentrated in the nucleus with negative charges orbiting around the nucleus	Because of Rutherford's gold foil experiment, the plum pudding model was replaced by the <u>nuclear</u> model of the atom
Niels Bohr 1913		Electrons in atoms are restricted to certain circular orbits about the nucleus. Similar to the planets orbiting around the sun.	The Bohr model is compared to the Solar System. Write a statement that would help reader understand that comparison The electrons are like planets in the solar system and the sun is the nucleus
Erwin Schrodinger 1926		A probability to findelectrons within aspace surrounding the nucleus. Cloud = denser when election is high. Cloud = less dense when electron is low.	Define the term "atomic orbital" The physical region or space where the electron can be calculated to be present