

DO NOT WRITE ON THIS PAPER!

Holt Physical Science: Section 4.1 Atomic Structure

What are Atoms?

1. What did Democritus suggest?
2. The word atom is derived from the Greek word meaning “_____”.
3. What did John Dalton propose in 1808 (be specific)? Why was it widely accepted?

What's in an Atom?

4. What three subatomic particles are involved in the everyday chemistry of most substances? (Include a detailed description of each.)
5. Even though atoms are made of charged particles, why don't atoms have a charge? Give an example.

Models of the Atom.

6. What happened to the original theories about the structure of the atom? Explain.
7. Describe Bohr's atomic model. (Be specific)
8. What does the modern theory of the atom (specifically) state?
9. How do scientists determine an electron's position? How do they show it?
10. What is the area where an electron is found called? How many are there, what are their names, and what do they look like?

What is a valence electron?