

SECTION

1

Study Guide

Structure of the Atom

Chapter

17

Directions: Use the word bank to fill in the blanks to match the phrases below.

Aristotle	Dalton	particle accelerator
atom	Democritus	quark
bubble chamber	electron cloud	Rutherford
Chadwick	orbits	Thomson

- _____ a device to help scientists study tracks left by subatomic particles
- _____ a device used to cause high-speed collisions (without seatbelts!)
- _____ Greek philosopher who had the right idea about atoms
- _____ Greek philosopher whose idea about matter was not quite so right but everyone believed him for a couple thousand years
- _____ the area where modern scientists think electrons are likely to be found
- _____ scientist who discovered that atoms contained electric charge
- _____ the place where Bohr thought electrons would be found
- _____ scientist who proposed one of the first models of the atom
- _____ the smallest piece of matter that keeps the properties of the element to which it belongs
- _____ scientist who proposed the idea of a nucleus
- _____ one of six very small particles that make up protons and neutrons
- _____ a student of Niels Bohr who discovered neutrons in the nucleus

Directions: List four past atomic models in chronological order and the correction or addition that was made to each one.

	Name of Model	Correction or Addition that was Made to the Model
13.		
14.		
15.		
16.		