Discovering Parts of an Atom - Review Part 1

1. The table below lists some of the main contributors to the development of the modern atomic model. Use the names in the word bank to fill in the table.

Aristotle **Bohr** **Chadwick** **Dalton**
Democritus **Rutherford** **Thomson**

Contributor	Description
a.	Greek philosopher who said that atoms could not be divided, created or destroyed.
b.	Greek philosopher who thought that matter is made up of fire, water, air, and earth.
c.	English teacher of the 1700s who stated that matter is made of atoms that cannot be divided and that atoms combine in specific ratios.
d.	English scientist who concluded that cathode rays are made up of negatively charged particles called electrons.
e.	Student of Thomson who discovered that atom's mass and positive charge are concentrated in a small area in its center.
f.	Scientist who discovered that the nucleus contains neutrons in addition to protons.
g.	Student of Rutherford who stated that electrons exist in circular orbits around the nucleus.

Continue to part 2 (see next page)

Discovering Parts of an Atom - Review Part 2

Match the following terms with the correct term from the word bank.

A. Alpha decay	**B. Atomic number**	**C. average atomic mass**
D. beta decay	**E. gamma decay**	**F. ion**
G. isotope	**H. mass number**	**I. nuclear decay**
	J. radioactive	

Letter or word	Description
	The number of protons in an atom of an element.
	An atom of the same element that has a different number of neutrons.
	The sum of the number of protons and neutrons in an atom.
	The average mass of an element's isotopes, weighted according to the abundance of each isotope.
	Refers to an element that spontaneously emits radiation.
	Occurs when an unstable atomic nucleus changes into another more stable nucleus by emitting radiation.
	Type of nuclear decay that emits a particle with two protons and two neutrons.
	Type of nuclear decay that emits a particle made of one high-energy electron is emitted and a neutron changes to a proton.
	Type of nuclear decay that does not emit particles.