



Model of the atom

1. Match each term to the correct description.

nucleus
electron
proton
neutron
atomic symbol

(a) The part of the atom that carries no charge

(b) Is positively charged and found in the middle of the atom

(c) Is the centre of the atom

(d) Is a two-letter symbol that is used to signify each atom

(e) Has very little mass and a negative charge

2. The model of the atom has changed over time. Match each scientist to his model.

Dalton
Rutherford
Thomson
Bohr

(a) The atom is a little indivisible mass that is solid.

(b) The atom is a "plum pudding" of positive charge with electrons spread throughout.

(c) Most of an atom's mass is concentrated in the small, positively charged nucleus. The electrons surround the nucleus and the rest of the atom is empty space.

(d) Electrons are arranged in orbitals which are circular paths around the dense small nucleus.

3. Fill in the gaps in the passage below.

The (a) _____ is the number of protons in an atom. Because an atom is electrically neutral, the number of protons equals the number of (b)_____

The (c) _____ is the number of particles in the nucleus of the atom and is the number of protons and (d)_____

4. Complete the table below. The first row has been done as an example.

	Atom	Atomic number	Number of protons	Number of electrons	Mass number	Number of neutrons
	Mg	12	12	12	23	11
(a)	H		1		2	
(b)	Cl	17			36	
(c)	He	2			4	
(d)	C	6			12	
(e)	O	8			16	
(f)	N	7				7

5. In your book, explain what makes one atom different from another atom.