



4 Atomic Structure

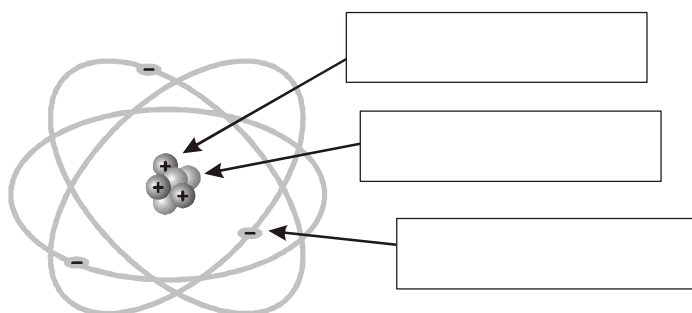
1. Which sub-atomic particles atoms consist of?

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2. The nucleus is made up of and

The nucleus is surrounded by

	Proton	Neutron	Electron
mass			
electrical charge			



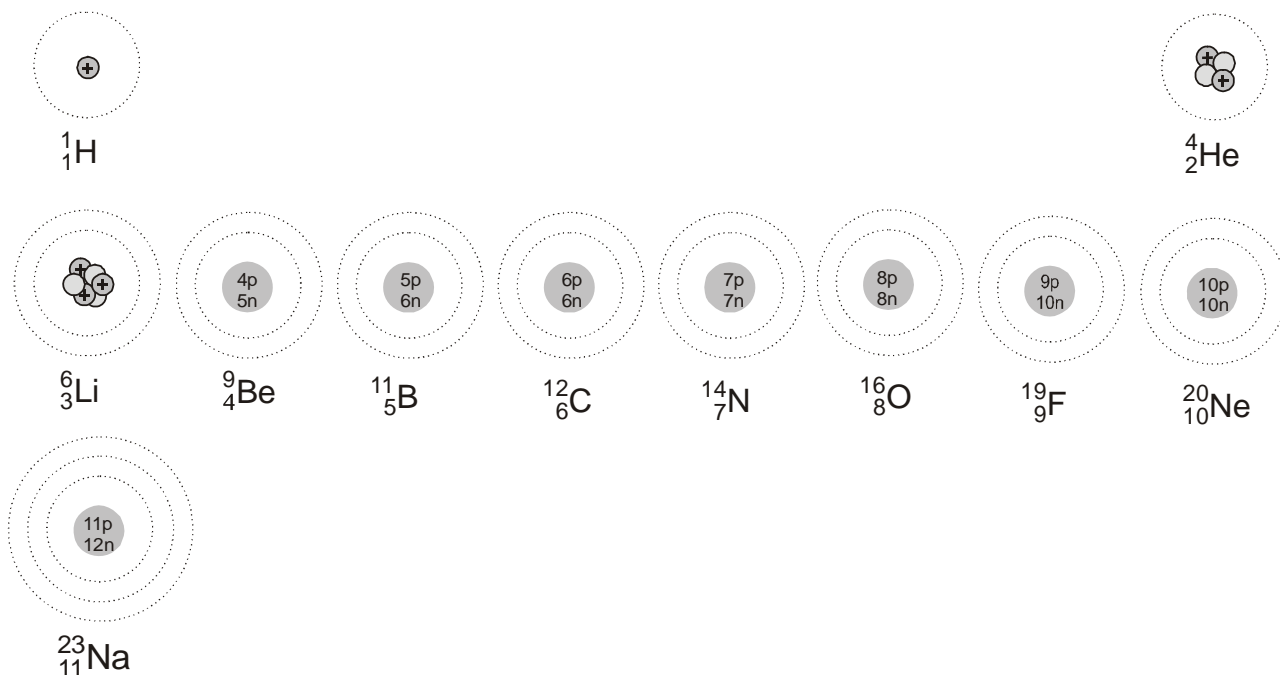
3. In an atom the number of is equal to the number of

An atom is electrically

4. Electrons are arranged in distinct

The innermost shell can contain electrons.

5. Complete the drawings:



6. The atomic number is the number of

7. The mass number is the number of

8.	mass	number of protons	number of electrons	number of neutrons
${}^1_1\text{H}$				
${}^4_2\text{He}$				
${}^{16}_8\text{O}$				
${}^{23}_{11}\text{Na}$				
${}^{235}_{92}\text{U}$				
${}^{238}_{92}\text{U}$				

9. A nucleus cannot exist of only protons. Why?

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10. ${}^{235}_{92}\text{U}$ and ${}^{238}_{92}\text{U}$ are called They have equal amount of but different amount of

11. Which are the three isotopes of hydrogen?

12. Name two isotopes of helium.