

Atomic Structure

1. Copy the table below into your book, then complete it.

Element	Symbol	Atomic number	Atomic mass	Number of:		
				protons	neutrons	electrons
hydrogen	${}^1_1\text{H}$	1	1	1	0	1
lithium	${}^7_3\text{Li}$					
	${}^{16}_8\text{O}$					
		13	27			
argon					22	
				19	20	
			127			53
	${}^{238}_{92}\text{U}$					

2. a) Neutral atoms must have the same number of electrons as protons. Explain why.
- b) Atomic mass is the number of protons added to the number of neutrons. For example, beryllium has 4 protons and 5 neutrons, and so its atomic mass is 9.
Explain why the number of electrons is not included in the atomic mass.
3. You can use the symbol of an element to work out the numbers of protons, neutrons and electrons there are in its atom.
Draw, or write, a **revision summary** about how you do this.
Use the lithium atom ${}^7_3\text{Li}$ as your example.

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