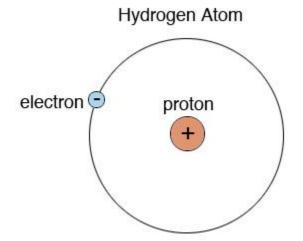
Learning Guide 2.3 - Atomic Theory



A proton has a diameter of: $0.84 \times 10^{-15} \text{m}$ A hydrogen atom is roughly 1 Å (0.5x10⁻¹⁰m)

This is 5 **Orders of magnitude** larger.

If you crunch yourself up to represent a proton in a 1 m³ box, the electron circling you will be:					
A proton is about 2000x bigger than an electron. If you are the proton, what is the size of the electron?					

Fill in the table:

Name	Relative Mass	Electric Charge	Symbol	Location in Atom
proton	1836			
neutron	1837			
electron	1			

Draw the Bohr diagram for potassium:

Atoms in the same group have _	-
Atoms in the same period have	

Explain why metals tend to lose electrons and non-metals tend to gain them.

Explain,

Why elements get bigger going down the periodic table.

Why elements get smaller going across the periodic table.

1	1 H 37	Chemical symbol Atomic radius (pm) Relative size						
2	Li 152	Be 112	B 85	с <i>т</i>	N 75	0 73	F 72	Ne 71
3	Na 186	Mg 160	Al 143	Si 118	P 110	S 103	CI 100	Ar 98
4	K 227	Ca 197	Ga 135	Ge 122	As 120	Se 119	Br 114	Kr 112
5	Rb 248	Sr 215	In 167	Sn 140	Sb 140	Te 142	I 133	Xe 131
6	Cs 265	Ba 222	TI 170	Pb 146	Bi 150	Po 168	At 140	Rn 140