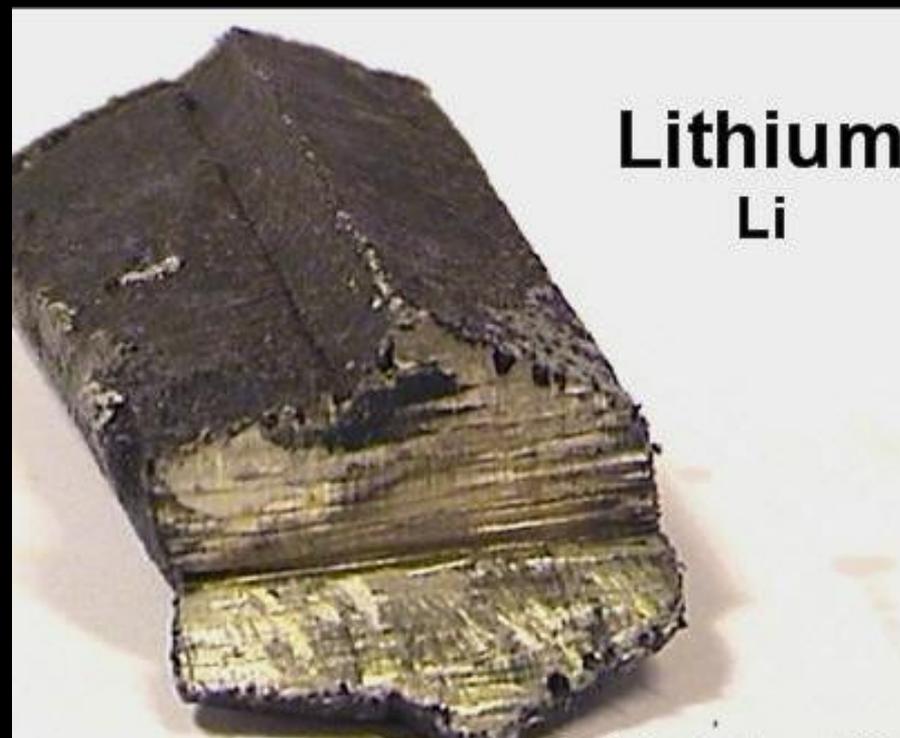


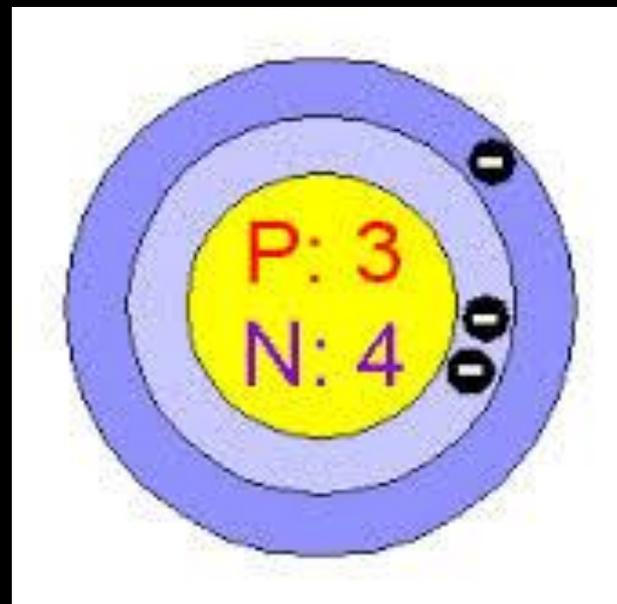
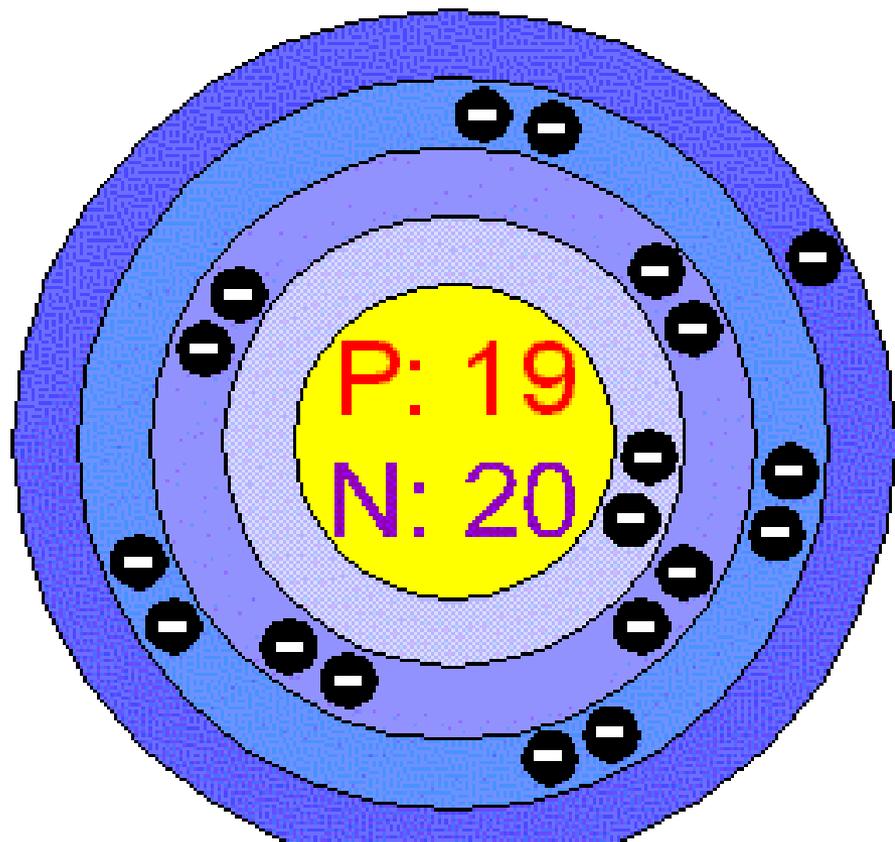
Potassium and lithium are both soft metal elements in group 1 of the periodic table.



Potassium's reaction with water is much more violent than lithiums.....



Q// Use atomic structure to explain why potassium's reaction with water is more violent than lithiums..... ? [6marks]



Markscheme

6 marks

Accept “similar” wording

Please assign marks A – F next to tick

(so that you know which marks were scored !)

A Li & K both trying to lose 1e from outer shell *during chemical reactions*

B Li has 3 protons (in nucleus), K has 19

C More nuclear attraction in K than Li, *suggests* that outer shell electron more attracted to nucleus in K than Li....

D Li has 1 “shielding” shell of electrons, K has 3

E More shielding in K, reduces attraction of outer shell electron to nucleus *owtte*

F *Suggests* that shielding has bigger effect on size of attraction between nucleus & outer shell electron than no. of protons