

Atoms and the periodic table

1.	(a)	nucleus	1	
		electron	1	
	(b)	correct number of electrons (12) <i>accept dots and circles</i>	1	
		2.8.2	1	[4]
2.	(a)	react with oxygen / oxidise / burn in oxygen / burning / combustion or tungsten to tungsten oxide or makes an oxide <i>key idea is oxidation</i> <i>ignore breaking ignore fire / flames / exothermic</i> <i>ignore react with air</i>	1	
	(b)	it is (very) unreactive / not reactive / inert / does not react with tungsten or it is a noble gas or it is in group 0 or 8 or 18 <i>do not accept unreactive / inert metal or argon is not <u>very</u> reactive</i>	1	
		full outer shell (of electrons) / 8 electrons in outer shell	1	
		does not need to gain / lose / swap / transfer / share electrons or does not need to form bonds <i>does not bond ionically / covalently</i>	1	[4]
3.	(a)	sodium / magnesium / aluminium (<i>Allow correct symbols</i>) <i>for 1 mark</i>	1	
	(b)	argon (<i>Allow correct symbols</i>) <i>for 1 mark</i>	1	
	(c)	chlorine (<i>Allow correct symbols</i>) <i>for 1 mark</i>	1	[3]