Atoms and the periodic table

Mark scheme

1.	(a)	nucleus	1
		electron	1
	(b)	correct number of electrons (12) *accept dots and circles*	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 *key idea is oxidation* *ignore breaking ignore fire / flames / exothermic* *ignore react with air*	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 *do **not** accept unreactive / inert metal **or** argon is not <u>very</u> reactive*	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 *does not bond ionically / covalently*	1
			[4]
3.	(a)	sodium / magnesium / aluminium *(Allow correct symbols)* *for 1 mark*	1
	(b)	argon *(Allow correct symbols)* *for 1 mark*	1
	(c)	chlorine *(Allow correct symbols)* *for 1 mark*	1
			[3]