

#### 4.1 Subatomic Particles – Answer Key

Element	Atomic #	Mass #	# Protons	# Neutrons	# Electrons in ATOM	Ion symbol and charge	# electrons in the ION
Potassium	19	39	19	20	19	K <sup>+</sup>	18
Phosphorous	15	31	15	16	15	P <sup>3-</sup>	18
Lithium	3	7	3	4	3	Li <sup>+</sup>	2
Calcium	20	40	20	20	20	Ca <sup>2+</sup>	18
Nitrogen	7	14	7	7	7	N <sup>3-</sup>	10
Helium	2	5	2	3	2	N/A	N/A
Argon	18	40	18	22	18	N/A	N/A
Aluminum	13	26	13	13	13	Al <sup>3+</sup>	10
Chlorine	17	37	17	20	17	Cl <sup>-</sup>	18
Iodine	53	127	53	74	53	I <sup>-</sup>	54

2) Noble gases – stable, full valence shell

3) a) 7      c) 50  
b) 27      d) 5

4) a) 3      c) 16  
b) 14      d) 10

5) a) 2      c) 56  
b) 34      d) 10