








# Electron Dot Diagrams

Practice drawing electron dot diagrams for different elements.

Element	Symbol	Family Name	Atomic Number	# of Protons	# of Electrons	Period Number (# of shells)	Group # (# of valence e <sup>-</sup> )	Electron Dot Diagram
carbon	C	Carbon family	6	6	6	2	4	
aluminum	Al	Boron family	13	13	13	3	3	
silicon	Si	Carbon family	14	14	14	3	4	
calcium	Ca	Alkaline Earth Metals	20	20	20	4	2	
lithium	Li	Alkali Metals	3	3	3	2	1	
phosphorus	P	Pnictogens	15	15	15	3	5	
magnesium	Mg	Alkaline Earth Metals	12	12	12	3	2	

Practice drawing electron dot diagrams for different IONS.

Element	Symbol	# of Protons	# of Electrons	Charge on Ion	Nearest Noble Gas	Electron Dot Diagram
sulfide	S <sup>2-</sup>	16	18	2-	argon	$[\text{:}\ddot{\text{S}}\text{:}]^{2-}$
oxide	O <sup>2-</sup>	8	10	2-	neon	$[\text{:}\ddot{\text{O}}\text{:}]^{2-}$
potassium	K <sup>+</sup>	19	18	+	argon	$[\text{K}]^{+}$
chloride	Cl <sup>-</sup>	17	18	-	argon	$[\text{:}\ddot{\text{Cl}}\text{:}]^{-}$
neon	Ne	10	10	0	neon	$\text{:}\ddot{\text{Ne}}\text{:}$
sodium	Na <sup>+</sup>	11	10	+	neon	$[\text{Na}]^{+}$
fluoride	F <sup>-</sup>	9	10	-	neon	$[\text{:}\ddot{\text{F}}\text{:}]^{-}$