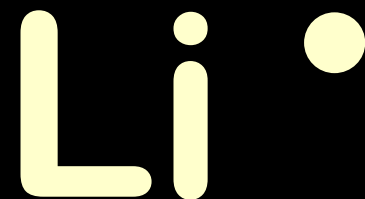


# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration



1. Start on the right side



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

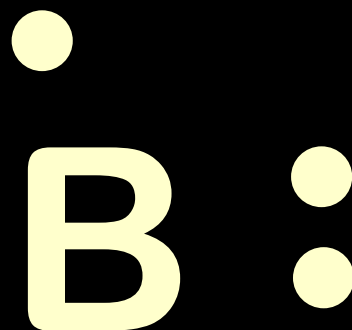


1. Start on the right side
2. Add a second next to the first one



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

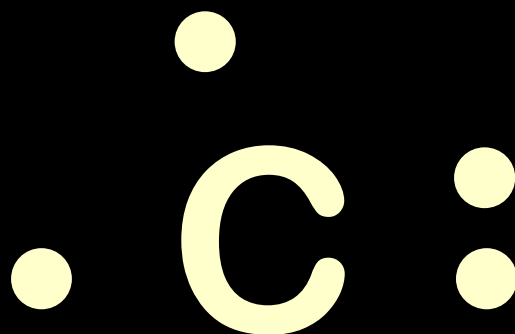


3. Go counter-clockwise



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

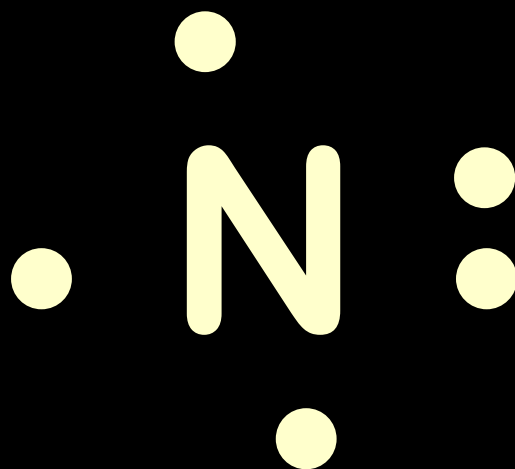


3. Go counter-clockwise



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

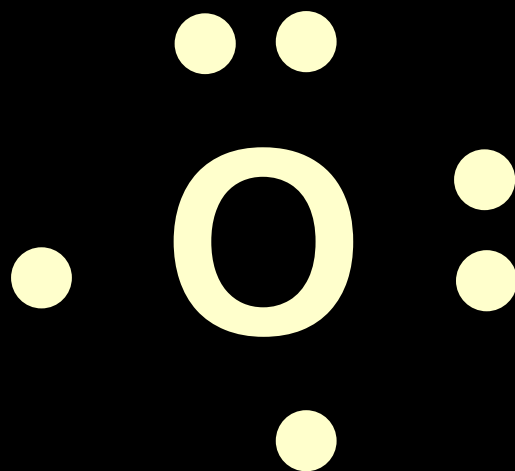


3. Go counter-clockwise



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

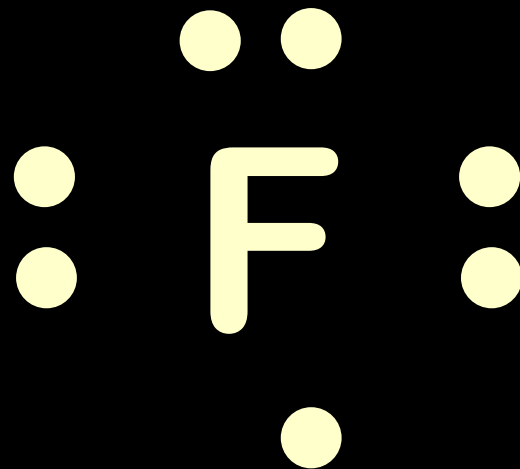


4. Repeat for second on each side



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

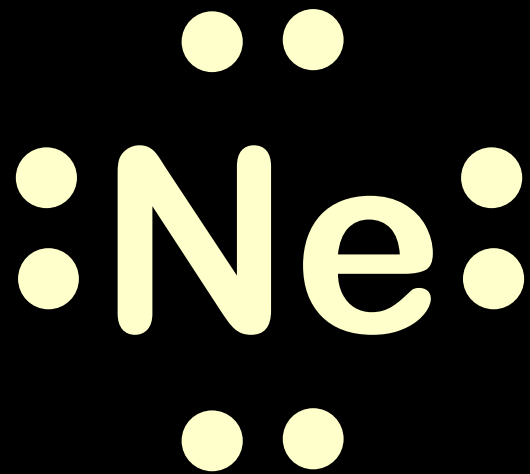


4. Repeat for second on each side



# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration



4. Repeat for second on each side






# *Lewis Dot Diagrams*

Visualize the outer shell electron configuration

# Valence Electrons

1. Start at the right side
  2. Add a second next to the first one
  3. Go counter-clockwise
  4. Repeat for second on each side
- 

# Valence Electrons

← Group (US) →

		<b>1A 2A</b>																<b>7A 8A</b>			
<b>Period</b>	<b>1</b>	1 H 1.00797												<b>3A 4A 5A 6A</b>						1 H 1.00797	2 He 4.0026
	<b>2</b>	3 Li 6.939	4 Be 9.0122											5 B 10.811	6 C 12.0112	7 N 14.0067	8 O 15.9994	9 F 18.9984	10 Ne 20.183		
	<b>3</b>	11 Na 22.9898	12 Mg 24.312	<b>3B 4B 5B 6B 7B --- 8B --- 11B 12B</b>										13 Al 26.9815	14 Si 28.086	15 P 30.9738	16 S 32.064	17 Cl 35.453	18 Ar 39.948		
	<b>4</b>	19 K 39.102	20 Ca 40.08	21 Sc 44.956	22 Ti 47.90	23 V 50.942	24 Cr 51.996	25 Mn 54.9380	26 Fe 55.847	27 Co 58.9332	28 Ni 58.71	29 Cu 63.54	30 Zn 65.37	31 Ga 69.72	32 Ge 72.59	33 As 74.9216	34 Se 78.96	35 Br 79.909	36 Kr 83.80		
	<b>5</b>	37 Rb 85.47	38 Sr 87.62	39 Y 88.905	40 Zr 91.22	41 Nb 92.906	42 Mo 95.94	43 Tc (99)	44 Ru 101.07	45 Rh 102.905	46 Pd 106.4	47 Ag 107.870	48 Cd 112.40	49 In 114.82	50 Sn 118.69	51 Sb 121.75	52 Te 127.60	53 I 126.904	54 Xe 131.30		
	<b>6</b>	55 Cs 132.905	56 Ba 137.34	*57 La 138.91	72 Hf 178.49	73 Ta 180.948	74 W 183.85	75 Re 186.2	76 Os 190.2	77 Ir 192.2	78 Pt 195.09	79 Au 196.967	80 Hg 200.59	81 Tl 204.37	82 Pb 207.19	83 Bi 208.980	84 Po (210)	85 At (210)	86 Rn (222)		
	<b>7</b>	87 Fr (223)	88 Ra (226)	+89 Ac (227)	104 Rf (261)	105 Db (262)	106 Sg (266)	107 Bh (262)	108 Hs (265)	109 Mt (266)	110 ? (271)	111 ? (272)	112 ? (277)								

# Valence Electrons

← Group (Intl) →

Period

	<b>1</b>	<b>2</b>											<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>1</b>	<b>2</b>
<b>1</b>	1 H 1.00797												13 Al 26.9815	14 Si 28.086	15 P 30.9738	16 S 32.064	1 H 1.00797	2 He 4.0026
<b>2</b>	3 Li 6.939	4 Be 9.0122											5 B 10.811	6 C 12.0112	7 N 14.0067	8 O 15.9994	9 F 18.9984	10 Ne 20.183
<b>3</b>	11 Na 22.9898	12 Mg 24.312	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	13 Al 26.9815	14 Si 28.086	15 P 30.9738	16 S 32.064	17 Cl 35.453	18 Ar 39.948
<b>4</b>	19 K 39.102	20 Ca 40.08	21 Sc 44.956	22 Ti 47.90	23 V 50.942	24 Cr 51.996	25 Mn 54.9380	26 Fe 55.847	27 Co 58.9332	28 Ni 58.71	29 Cu 63.54	30 Zn 65.37	31 Ga 69.72	32 Ge 72.59	33 As 74.9216	34 Se 78.96	35 Br 79.909	36 Kr 83.80
<b>5</b>	37 Rb 85.47	38 Sr 87.62	39 Y 88.905	40 Zr 91.22	41 Nb 92.906	42 Mo 95.94	43 Tc (99)	44 Ru 101.07	45 Rh 102.905	46 Pd 106.4	47 Ag 107.870	48 Cd 112.40	49 In 114.82	50 Sn 118.69	51 Sb 121.75	52 Te 127.60	53 I 126.904	54 Xe 131.30
<b>6</b>	55 Cs 132.905	56 Ba 137.34	*57 La 138.91	72 Hf 178.49	73 Ta 180.948	74 W 183.85	75 Re 186.2	76 Os 190.2	77 Ir 192.2	78 Pt 195.09	79 Au 196.967	80 Hg 200.59	81 Tl 204.37	82 Pb 207.19	83 Bi 208.980	84 Po (210)	85 At (210)	86 Rn (222)
<b>7</b>	87 Fr (223)	88 Ra (226)	+89 Ac (227)	104 Rf (261)	105 Db (262)	106 Sg (266)	107 Bh (262)	108 Hs (265)	109 Mt (266)	110 ? (271)	111 ? (272)	112 ? (277)						

