

**LOCATION OF ELEMENTS WORKSHEET**

	Noble Gas Config.	Period	Block (s, p, d, f)	Group
1	[Ne] 3s <sup>2</sup> 3p <sup>2</sup>			
2	[Ar] 4s <sup>2</sup> 3d <sup>10</sup> 4p <sup>6</sup>			
3	[Xe] 6s <sup>2</sup>			
4	[Kr] 5s <sup>2</sup> 4d <sup>10</sup> 5p <sup>5</sup>			
5	[Ar] 4s <sup>2</sup> 3d <sup>10</sup> 4p <sup>1</sup>			
6	[He] 2s <sup>2</sup> 2p <sup>3</sup>			
7	[Kr] 5s <sup>2</sup> 4d <sup>10</sup> 5p <sup>4</sup>			
8	[He] 2s <sup>1</sup>			
9	[Xe] 6s <sup>2</sup> 4f <sup>14</sup> 5d <sup>10</sup> 6p <sup>2</sup>			
10	[Rn] 7s <sup>2</sup>			

**PERIODIC TRENDS (multiple choice w/o using Periodic Table) WORKSHEET**

- Which element is most metallic? Group 14, Period \_\_\_\_  
 (A) 2 (B) 3 (C) 4 (D) 5
- Which element is most nonmetallic? Group 16, Period \_\_\_\_  
 (A) 2 (B) 3 (C) 4 (D) 5
- Which has the largest atomic radius? Group \_\_\_\_, Period 2  
 (A) 1 (B) 13 (C) 15 (D) 17
- Which has the highest ionization energy? Group 2, Period \_\_\_\_  
 (A) 3 (B) 4 (C) 5 (D) 6
- Which has the most metallic properties? Group \_\_\_\_, Period 5  
 (A) 13 (B) 14 (C) 15 (D) 16
- Which has the greatest electron affinity?  
 (A) Grp 16, Pd 4 (B) Grp 16, Pd 5 (C) Grp 17, Pd 5 (D) Grp 17, Pd 4
- Which has the smallest atomic radius? Group 15, Period \_\_\_\_  
 (A) 2 (B) 3 (C) 4 (D) 5
- Which has the lowest electron affinity? Group \_\_\_\_, Period 3  
 (A) 13 (B) 15 (C) 17 (D) 18
- Which has the lowest ionization energy? Group 1, Period \_\_\_\_  
 (A) 2 (B) 3 (C) 4 (D) 5

**UNIT 5 - PERIODIC TABLE & PERIODIC LAW**

- 10.) Which has the most metallic properties?  
(A) Grp 15, Pd 5      (B) Grp 16, Pd 5      (C) Grp 15, Pd 6      (D) Grp 16, Pd 6
- 11.) Which would most easily lose its valence electrons?  
(A) Grp 1, Pd 3      (B) Grp 14, Pd 2      (C) Grp 17, Pd 3      (D) Grp 18, Pd 2
- 12.) Which would most easily gain electrons?  
(A) Grp 13, Pd 3      (B) Grp 14, Pd 2      (C) Grp 15, Pd 2      (D) Grp 17, Pd 3
- 13.) Which has an octet of electrons in its outermost energy level?  
(A) Grp 13, Pd 3      (B) Grp 14, Pd 2      (C) Grp 18, Pd 2      (D) Grp 17, Pd 5
- 14.) Which has chemical properties most similar to  $[\text{Ar}] 4s^1$ ?      Group \_\_\_\_, Period 3  
(A) 1      (B) 2      (C) 13      (D) 14
- 15.) Which is most reactive?      Group \_\_\_\_, Period 2  
(A) 14      (B) 15      (C) 17      (D) 18
- 16.) Which is most reactive?  
(A) Grp 13, Pd 2      (B) Grp 1, Pd 5      (C) Grp 2, Pd 5      (D) Grp 13, Pd 5
- 17.) Which has chemical properties most similar to  $[\text{Ne}] 3s^2 3p^5$ ?  
(A) Grp 16, Pd 3      (B) Grp 18, Pd 3      (C) Grp 17, Pd 4      (D) Grp 18, Pd 2
- 18.) Which would never be found in the free state?  
(A) Grp 1, Pd 4      (B) Grp 13, Pd 3      (C) Grp 15, Pd 3      (D) Grp 14, Pd 4
- 19.) Which is the least reactive gas?      Group \_\_\_\_, Period 2  
(A) 16      (B) 15      (C) 17      (D) 18
- 20.) Which is the most reactive gas?      Group \_\_\_\_, Period 2  
(A) 16      (B) 15      (C) 17      (D) 18
- 21.) Which would never be in a compound?  
(A) Grp 1, Pd 1      (B) Grp 18, Pd 1      (C) Grp 13, Pd 2      (D) Grp 1, Pd 2
- 22.) Which would be found in the "d" block of elements?  
(A) Grp 1, Pd 3      (B) Grp 11, Pd 4      (C) Grp 17, Pd 5      (D) Grp 14, Pd 2

**UNIT 5 REVIEW/SUMMARY WORKSHEET**

1													18
	2					13	14	15	16	17			
		3	----		12								
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- 1.) Color the "s" block area pink.
- 2.) Color the "p" block area yellow.
- 3.) Color the "d" block area light green.
- 4.) Color the "f" block area orange.
- 5.) Draw an X in the boxes that represent the unreactive elements
- 6.) Draw a diagonal line (from upper left to lower right) in the area that represents the very reactive nonmetals.
- 7.) Draw a diagonal line (from upper right to lower left) in the area that represents the very reactive metals.
- 8.) Draw a purple capital letter "R" with a circle around it at the location that represents the element with the largest atomic radius.
- 9.) Draw a blue capital letter "I" with a diamond around it at the location that represents the element with the highest ionization energy.
- 10.) Draw a dark green capital letter "E" with a triangle around it at the location that represents the element with the highest electronegativity/electron affinity.
- 11.) Outline in black the boxes where metalloids with more nonmetallic properties are located.
- 12.) Outline in red the boxes where metalloids with more metallic properties are located.
- 13.) Draw a star in the location that represents the most metallic element (or most reactive metal).
- 14.) Draw a heart in the location that represents the most nonmetallic element (or most reactive nonmetal).