**Reinforcement Worksheet**

 **The Rock Cycle**

Teacher Name: Uzma Amer Class: 9 Subject: chemistry Date: 21st April’17

Q.1. Choose the best answer:

1. Which of the following is **NOT** a trend that varies systematically in the periodic table?
2. Electronegativity b) symbols of elements c) ionization energy d) atomic radius
3. The atomic radius of F, Br, and I are 64, 114, and 138 pm respectively. From this information (and not your book) estimate a reasonable atomic radius of Cl.
4. 53 pm b)89 pmn c) 126 pm d)162 pm
5. Use the periodic table (not any tables in your book) to predict which element has the largest ionization energy.
6. H b) He c) Fr d) Rn
7. Use the periodic table (not any tables or charts in your book) to predict which element has the largest atomic radius.
8. Na b) He c) Li d) Ca
9. Use your knowledge of periodic trends to predict which element reacts most vigourosly with water to produce hydrogen gas.
10. Li b) Cs c) Mg d) C
11. Which of the following is a transition element?
12. Fe b) He c) N d) K
13. For which of the properties does Li have a larger value than potassium? Use the periodic table?
14. first ionization energyb)atomic radiusc) ionic radiusd) number of protons

|  |  |
| --- | --- |
|  |  |

1. The least electronegative elements are the:
2. Metalloids b) Halogens   c) Alkali metals d) Noble gases

9. As one moves from down (↓) a group on the periodic table, the ionization energy of the elements encountered tends to:

1. stay the same b) decrease  c)  increase

10. Anions have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge and are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the atoms from which they formed.

1. negative/larger   b) positive/smaller  c)negative/smaller d) positive/larger

Q.2. Explain why?

1. The formula of Lithium Chloride and Sodium Chloride (LiCl and NaCl) shows the same ratios of elements i-e 1:1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Ionizing energy decreases down to group.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Atomic size of Be is smaller than Ca.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Group I elements are more reactive than group II elements.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.3.Arrenge the given elements on the basis of their reactivity (high to low)

Na,B,Be,Li,Ca,Mg,K,Cs,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q.4. Complete the given table: /5

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| s.no | Element  | Symbol  | Proton number | Group  | Period  | Valancy | Ion  |
| 1 | Aluminum  | Al | 13 | III |  |  | Cat  |
| 2 |  | S | 16 |  |  | -2 | An  |
| 3 | Potassium  |  | 19 | I |  | +1 | Cat  |
| 4 |  | Mg | 12 | II |  | +2 |  |
| 5 | Chlorine  | Cl | 17 |  | 3 | -1 |  |

. Iron is one of the most important metals. It is a transition element.

 (a) Explain, in terms of metallic bonding, why iron is a good electrical conductor.

(b) When underwater, iron pipes will rust relatively rapidly.

 (i) State the essential conditions needed for the rusting of iron.

(c) Most iron is used in the alloy steel. Define the term Alloy

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (d) Write two typical properties that are generally common only to transition elements.

 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_