**G8 W13 chemistry worksheet**

Choose the correct answer: -

1. Which of the following observations does not apply to group I elements?
   1. They are relatively soft metals
   2. They can react with Oxygen
   3. They react very quickly with water releasing Hydrogen gas
   4. They are hard metals
2. Arrange the elements in group 1 from the top to bottom of the group.
   1. Li, Na, K, Fr, Rb, Cs
   2. Li, Na, K, Rb, Fr, Cs
   3. Li, Na, K, Rb, Cs, Fr
   4. Fr, Cs, Rb, K, Na, Li
3. What gas is given off when group 1 elements react with water?
   1. Hydrogen
   2. Oxygen
   3. Carbon dioxide
   4. Helium
4. How many electrons are in the outer shell of group 1 elements?
   1. 0
   2. 1
   3. 2
   4. 3
5. Which of the following is the most reactive in water?
   1. Lithium
   2. Sodium
   3. Potassium
   4. Hydrogen
6. What is the symbol equation for the reaction between sodium hydroxide and water?
   1. 2Na + 2H2O → 2NaOH + H2
   2. Na + H2O → NaOH + O
   3. Na + H2O → NaCl + CO2
   4. 2Na + 2H2O → 2NaH2 + O2
7. Which is the lightest metal?
   1. Lithium
   2. Sodium
   3. Potassium
   4. Hydrogen
8. Which statements is correct about the Group 1 elements when going down in the Periodic Table?
   1. The reactivity decreases
   2. Strength of nucleus to attract an electron into the valence shell increases
   3. density decreases
   4. The single valence electron becomes more weakly pulled by the nucleus
9. Why does the reactivity of group 1 elements increase down the group?
   1. It becomes easier to accept an electron
   2. It becomes more reactive
   3. It becomes easier to lose an electron
   4. It becomes less reactive
10. The melting and boiling points of the Group 1 elements \_\_\_\_\_\_\_\_\_\_\_\_\_\_ as you go down the group.
    1. Increase
    2. Decrease
    3. Don’t change
11. Group 1 elements only form ….. Ion
    1. +1
    2. -1
    3. +2
    4. -2

* Answer the following questions?

1. Why do the melting points of Group 1 elements decrease from top to bottom in the periodic table?

Because attraction between positive ions and electrons gets weaker, (strength of metallic bond decreases)so melting point decreases.

1. Which element is used in car batteries?

lithium

1. Describe the electron configuration of Group 1 elements.

They have one outer electron

1. Where can you find Group 1 elements in the periodic table?

To the left of the periodic table.