Reactivity of Metals

Name _____ Date_____ _____

Objective: Determine the reactivity of various metals

Methods

Materials

- Water
- 100 mL beaker
- Magnesium
- Zinc
- Thermometer
- Tongs
- Copper
- Hydrochloric Acid
- Calcium
- Iron

Procedures

1. Design a table on the back page to record your results
2. Pour 50mL of water into a 100mL beaker. Heat to 50^0C
3. Carefully place the zinc into the water for 5 minutes. Record your results to include the chemical formula
4. Repeat the procedures using the other metals
5. Set the Bunsen burner to a low blue flame
6. Using metal tongs, carefully place a small sample of zinc into the flame. Record your results to include the chemical formula
7. Repeat the procedures using the other metals
8. Pour 25 mL of hydrochloric acid into a 100mL beaker. Place a thermometer into the beaker
9. Carefully place a small amount of zinc into the acid. Record your results to include the chemical formula.
10. Repeat the procedures using the other metals.

Conclusions

1. Why did magnesium and calcium react in a similar way?

2. Which was the most reactive metal?

3. What evidence did you have that a chemical reaction occurred? Explain your answer

4. Write out the balanced chemical equations for each reaction

5. Write out the order of reactivity of these metals

6. You have found a new element. Use the information from the table to answer the questions

Name	Symbol
Newium	Nm
How stored	In dry air
Appearance	Grey, Shiny on a clean surface
With water	Sinks, bubbles, forms gas, solution has a high pH value

   a. What evidence is there Newium is a metal?

   b. Would you place it in Group I or II. Explain your answer

   c. Write out the equation if newium reacted with oxygen