

## Redox Reactions

Name(s):

Date:

Lab Section:

### DATA

1. Record your observations for the halogens and halides from Procedure 1 or attach your table to this worksheet when you turn it in to your instructor.
  
2. Record your observations for the metals and metal ions from Procedure 2 or attach your table to this worksheet when you turn it in to your instructor.
  
3. Record your observations for the permanganate and sulfite ions from Procedure 3 or attach your table to this worksheet when you turn it in to your instructor.

### QUESTIONS

1. For Procedure 1, rank the halogens by oxidizing strength and the halide ions by reducing strength from strongest to weakest.

Halogens:

Halide ions:

2. Compare your rankings in Question 1 with the literature. Explain any variations and cite your literature source.

3. For Procedure 2, rank the metal ions by oxidizing strength and the metals by reducing strength from strongest to weakest.

Metal ions:

Metals:

4. Compare your rankings in Question 3 with the literature. Explain any variations and cite your literature source.

5. Write balanced net ionic equations for the combinations in Procedure 1 that produced a reaction.

6. Write balanced net ionic equations for *five* of the combinations in Procedure 2 that produced a reaction.

7. Write balanced net ionic equations for the three reactions in Procedure 3.

8. Describe the effect of pH on the degree of oxidation or reduction that took place in Procedure 3. Be specific!