Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Formative Assessment on Redox Reactions**

*Consider the following chemical reaction:*

**MnO4 - + S2O3 2- → S4O6 2- + Mn 2+**

1. Assign an oxidation state to each atom on the **reactant** side.

Mn \_\_\_\_\_ (1 point)

O \_\_\_\_\_ (1 point)

S \_\_\_\_\_ (1 point)

1. Assign an oxidation state to each atom on the **product** side.

Mn \_\_\_\_\_ (1 point)

O \_\_\_\_\_ (1 point)

S \_\_\_\_\_ (1 point)

1. How do you know this is an oxidation-reduction reaction? (1 point)
2. Which substance is being oxidized? (1 point)
3. Which substance is being reduced? (1 point)
4. What is the oxidizing agent? (1 point)
5. What is the reducing agent? (1 point)
6. Balance the oxidation – reduction reaction. Show all of your work and write neatly. (10 points)
7. What is the meaning of this picture? (1 point)

