Name:_____ Block:_____ Date:_____

Chemistry 11 **Energy of Chemical Reactions** Assignment

Answer each of the following questions in full sentences.

1. Is the burning of wood exothermic or endothermic? Explain.

2. Is the melting of sugar exothermic or endothermic? Explain.

3. A beaker becomes warm when a reaction occurs in it. Are the chemicals in the beaker gaining or losing energy? Is the reaction endothermic or exothermic?

4. Which contain more energy in an endothermic reaction: the reactants or the products?

5. In an exothermic reaction, do you have to add or remove energy in order to allow products to form? Explain.

6. Is $\Delta H > 0$ or $\Delta H < 0$ for an endothermic reaction? Is $\Delta H > 0$ or $\Delta H < 0$ for an exothermic reaction?

7. Draw an energy diagram having $\Delta H = +25$ kJ.

8. Draw an energy diagram having $\Delta H = -50$ kJ.

9. $\Delta H = -50$ kJ for the reaction: $F \rightarrow G$. Re-write this equation to show the 50 kJ properly on the reactant or product side.

10. If a reaction absorbs 30 kJ of heat, what is ΔH for the reaction?

11. If $P \rightarrow Q + 25$ kJ, what is ΔH for the reaction? Which have more energy, the reactants or the products?