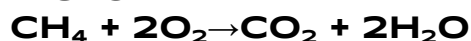


CER: Claim, Evidence, Reasoning*WRITING PROMPT*

CHEMICAL REACTIONS

BACKGROUND: Natural gas is a fuel that is used for heating and cooking in many homes, schools, and office buildings. It is composed of almost pure methane CH_4 and burns with a hot, blue flame. The chemical equation is shown below:



QUESTIONS: Describe in detail the burning of methane as a chemical reaction. Be sure to include the following information in your description:

1. How can you tell from the equation that this is a **chemical reaction** and not just a **physical change**.
2. Cite **two observations** that would likely indicate that a chemical reaction is occurring.
3. Classify the reaction as **exothermic** or **endothermic** and cite evidence for your choice.
4. Identify the **reactants** and the **products** of the reaction.
5. Explain how the **chemical equation** shows that **the law of conservation of mass** is satisfied in this reaction.

CLAIMS: (Answer the 5 questions.) 25 points

Name _____ Period _____ Date _____

EVIDENCE: WHAT EVIDENCE IS PROVIDED TO SUPPORT YOUR CLAIMS? WHAT DO YOU KNOW? 25 POINTS

REASONING: (EXPLAIN WHY YOUR EVIDENCE SUPPORTS YOUR CLAIM USING PARAGRAPH FORMAT AND SCIENCE TERMS.) 40 POINTS

TERMS TO USE AND UNDERLINE: **CHEMICAL REACTION, PHYSICAL CHANGE, TWO OBSERVATIONS, EXOTHERMIC, ENDOTHERMIC, REACTANTS, PRODUCTS, CHEMICAL EQUATION, THE LAW OF CONSERVATION OF MASS.**

90 POINTS TOTAL