

Balancing Equations

10SCIE - Fire & Fuels

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Learning Outcomes

8. Write the word equation for complete combustion
 9. Write the balanced symbol equation for complete combustion
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Starter

1. What are some key observations that would indicate incomplete combustion?
 2. What are some key observations that would indicate complete combustion?
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Keywords

- **Reactants:** Butane, oxygen, hydrogen, vinegar etc.
 - **Products:** Carbon dioxide, water, carbon etc.
 - **Chemical Compound:** H_2O , CO_2 , NH_3 , $NaCl$ etc.
 - **Atom/Molecule:** H, C, O, Au, Ca
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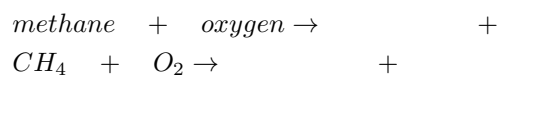
Question

What happens to the atoms/molecules during a chemical reaction?

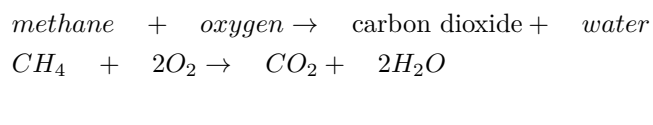
- No new atoms are created or destroyed
 - Mass of the reactants = mass of the products
 - The reactants change molecular structure
 - Two or more new products are made
 - The atoms are *rearranged*
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Complete Combustion of Methane

Complete the word and balanced symbol equation for this reaction.

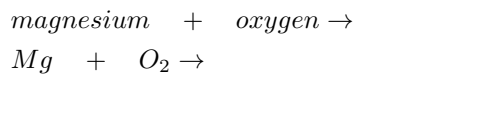


Answer Complete combustion of methane:

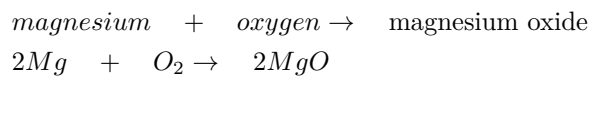


Burning of Magnesium

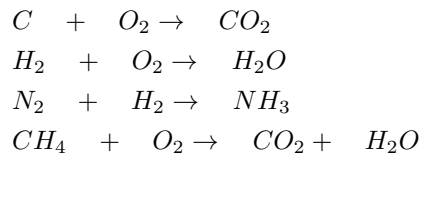
Complete the word and balanced symbol equation for this reaction.

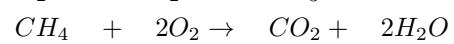
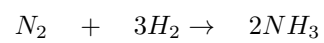
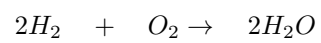
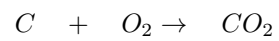


Answer Burning of Magnesium



Balance these reactions:



Answer**Extra Work**

1. Page 9: Fuels & Combustion
2. Balancing Equations Worksheet