

Name:

Date:

Class:

Alkane Resources Pre-Quiz **Answer Key**

Consider your own background experience and knowledge to describe the chemistry meaning of the following words: (If you do not know, write your best guess.)

element: **A chemical substance that cannot be broken down by chemical means.**

compound: **A substance formed by the chemical bonding of two or more chemical elements in a fixed ratio.**

hydrocarbon: **A compound consisting of only carbon and hydrogen atoms.**

alkane: **A hydrocarbon with no double bonds and no ring formations.**

chemical reaction: **A process of chemical change in which chemical bonds are broken and reformed, resulting in new substances.**

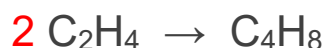
monomer: **A relatively small molecule which can be covalently bonded to other like monomers to form a polymer.**

oligomerization: **The formation of an oligomer from a monomer. An oligomer is 2-100 monomers chemically joined together.**

renewable resource: **A natural resource that is replenished by natural processes at a rate comparable to rate of consumption.**

non-renewable resource: **A natural resource that will not return, (renew), or will only return after a long period of time**

Matter cannot be created or destroyed (this is the Law of Conservation of Matter). In chemistry, this means we must **BALANCE** our written chemical reactions by making sure each side of the arrow has the same number of atoms of each element. Try to balance the reaction below.



The reaction shown above contains both elements and compounds. List the elements and compounds found in that reaction.

Elements: **carbon (C) and hydrogen (H)**

Compounds: **ethylene (C₂H₄) and butylene (C₄H₈)**

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Describe the main characteristic of alkanes as compared with other hydrocarbons.

Alkanes are hydrocarbons with no double bonds (or rings), as contrasted with both ethylene and butylene, which both contain one double bond.