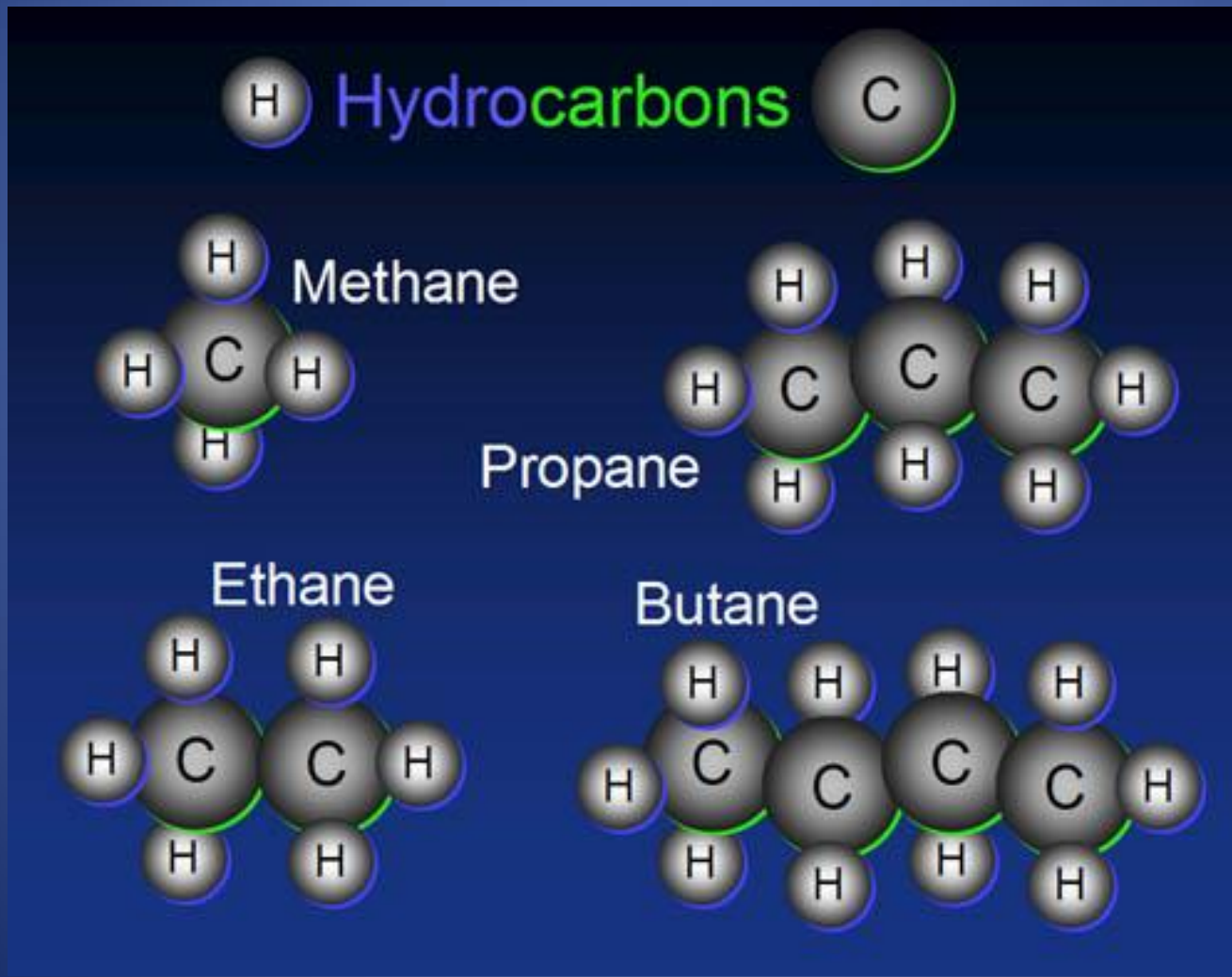


Organic chemistry

- Hydrocarbons

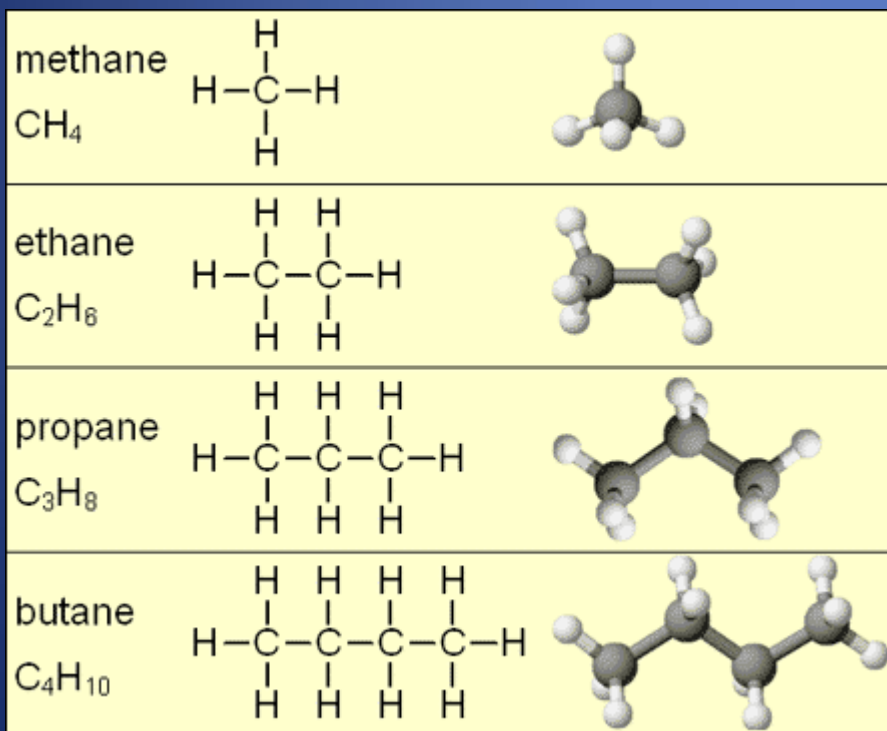
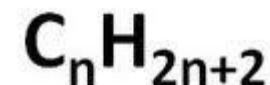
Hydrocarbons

- Chemical compounds that consist of only hydrogen and carbon atoms are called hydrocarbons (kolväten).



Learn the structure...it's very logical

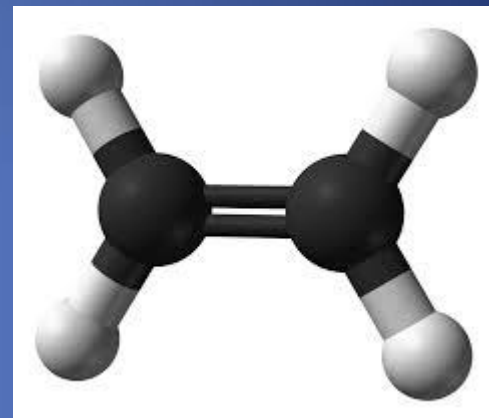
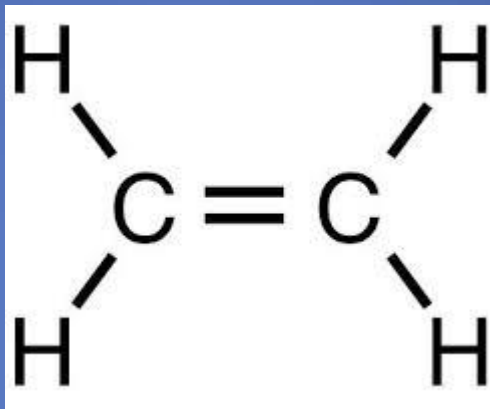
- Alkanes are the names of hydrocarbons that starts with methane, the atoms are linked with single bonds (enkelbindningar)



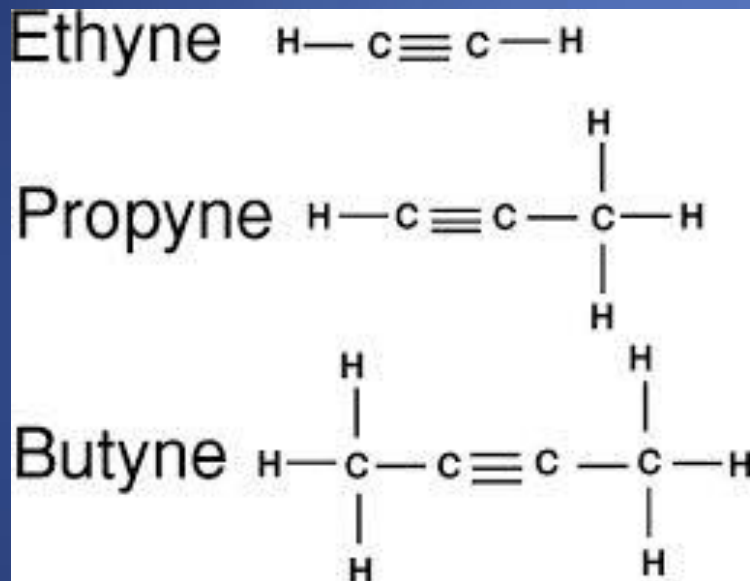
Name	Molecular Formula
methane	CH_4
ethane	C_2H_6
propane	C_3H_8
butane	C_4H_{10}
pentane	C_5H_{12}
hexane	C_6H_{14}
heptane	C_7H_{16}
octane	C_8H_{18}
nonane	C_9H_{20}
decane	$C_{10}H_{22}$

Alkenes - hydrocarbons with a double bonding of atoms

No. of C atoms	Name of alkene	Molecular formula
2	Ethene	C_2H_4
3	Propene	C_3H_6
4	Butene	C_4H_8
5	Pentene	C_5H_{10}
6	Hexene	C_6H_{12}
7	Heptene	C_7H_{14}
8	Octene	C_8H_{16}
9	Nonene	C_9H_{18}
10	Decene	$C_{10}H_{20}$



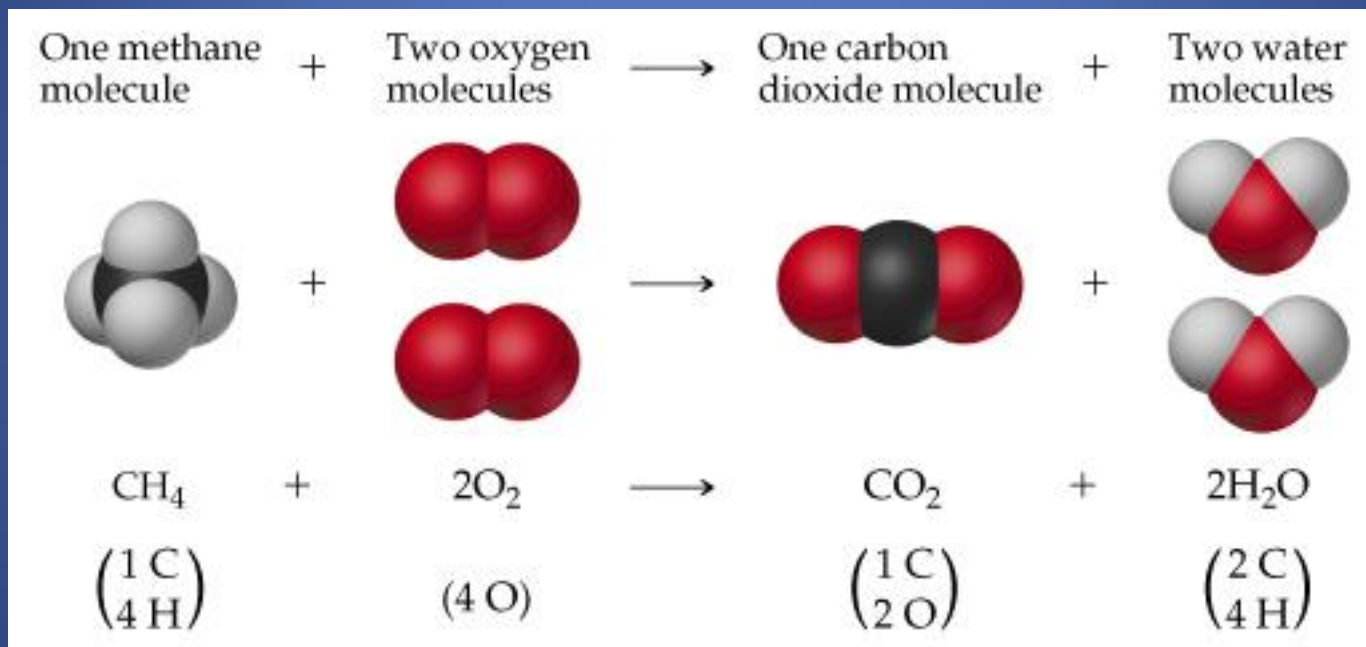
Alkynes – hydrocarbons with a triple bonding of atoms



Saturated and unsaturated hydrocarbons

- Alkanes are called ***saturated*** hydrocarbons – the carbon atoms bind to as many hydrogen atoms as possible with single bonds
- Alkenes and alkynes are called ***unsaturated*** hydrocarbons – the carbon atoms could bind to more hydrogen atoms and become saturated

Combustion of hydrocarbons – what happens?



Try yourself now to balance these reactions

- Propane burns in oxygen and carbondioxide and water is created...
- Butane burns in oxygen and carbondioxide and water is created...