Four principal classes of organic compounds.

Carbohydrates
Lipids
Proteins
Nucleic acids

Sep 12 - 1:42 PM

Where can you find carbohydrates?

fruits
rice
sugar
pasta
potatoes
bread
corn

f,v,g

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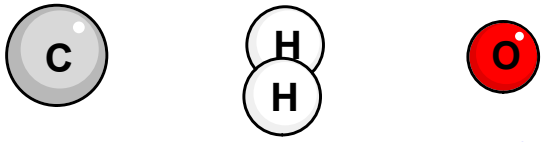
What is this ratio?



Carbon Hydrogen oxygen

1 : 2 : 1

2 : 4 : 2

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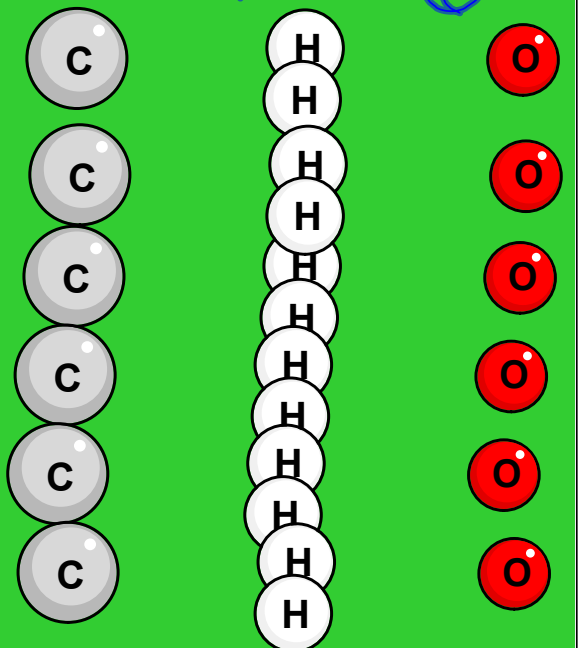
Single sugars are the building bloack of carbohydrates.

6 : 12 : 6



Examples:
Glucose
Fructose

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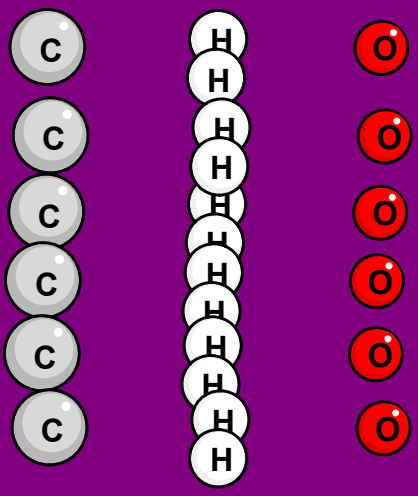
Single sugars are also known as monosaccharides.

One sugar



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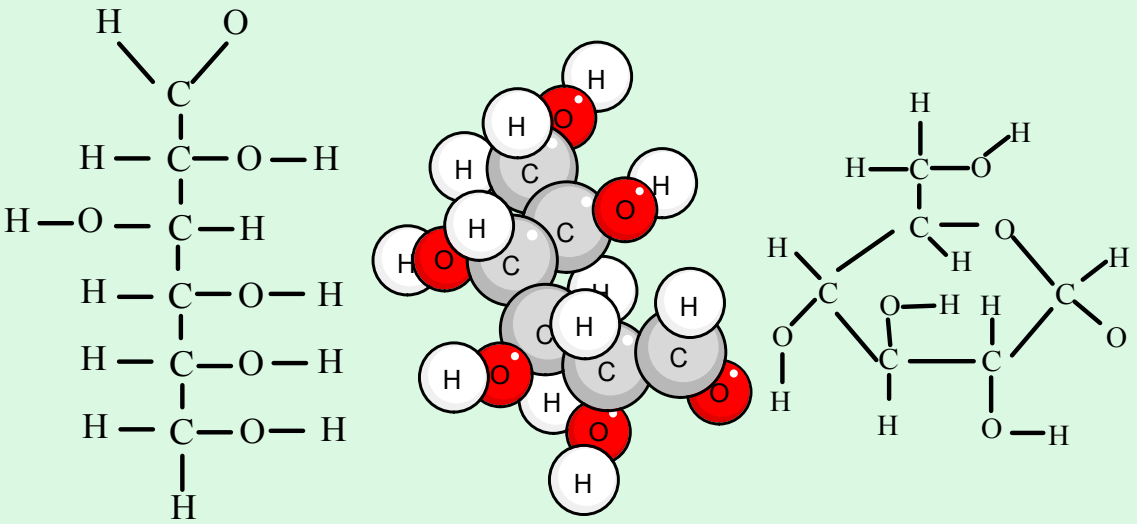
Glucose



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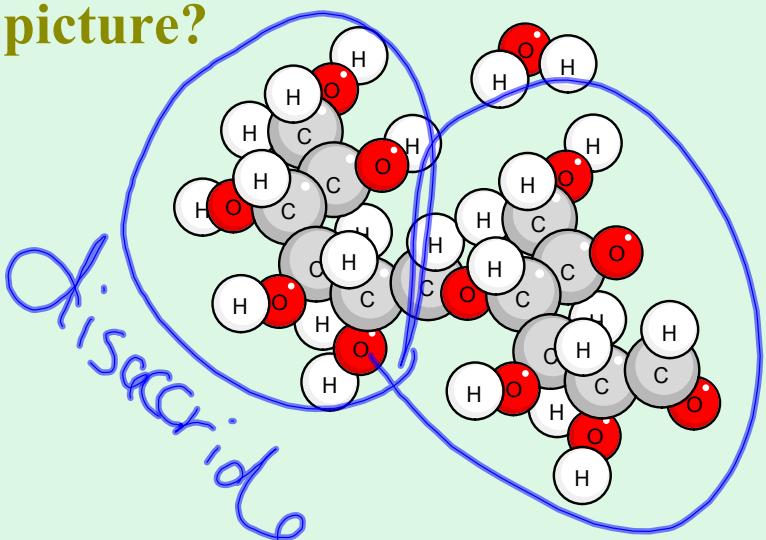
What do you notice about this picture?



disaccride

Maltose

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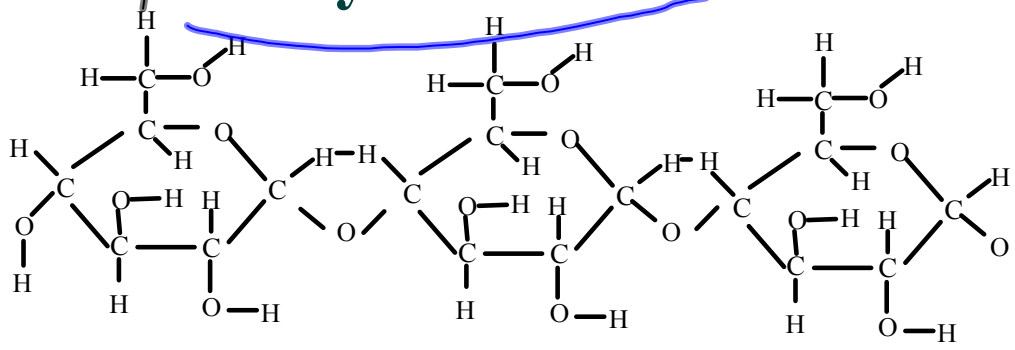
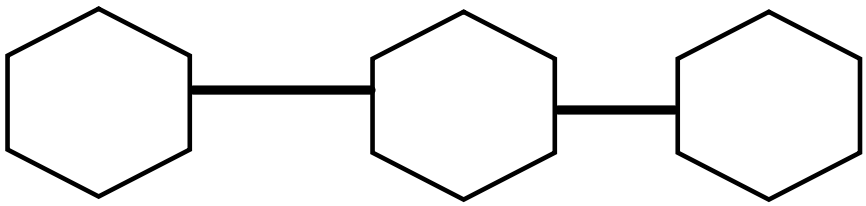
many

Polysaccharide





http://www.mansfield.ohio-state.edu/~sabedon/biol1025.htm

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Lipids are non-polar molecules that are not soluable in water.

Examples:
Fats
Phospholipids
Cholesterol
Chlorophyll

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Fats- lipids that store energy

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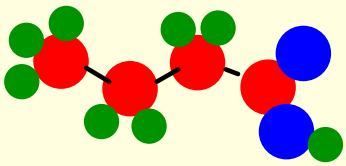
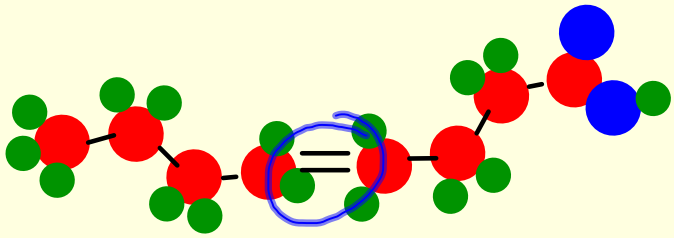


What is the difference?



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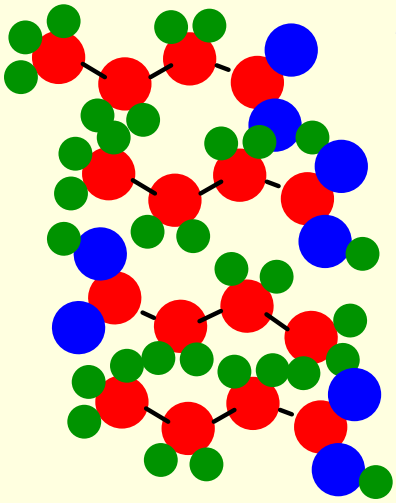
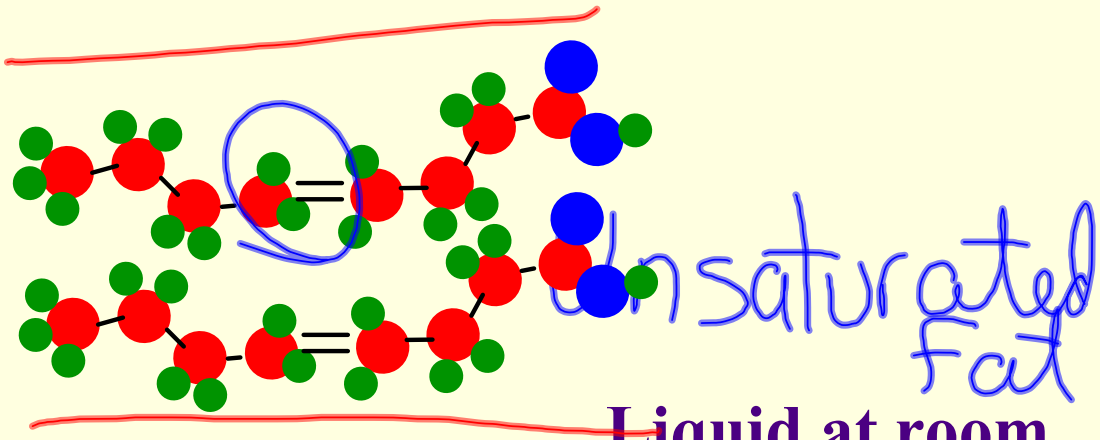


Saturated Fat

Solid at room temp like butter,lard, grease.

Saturated fats



Liquid at room temp like oil.

http://www.supplementquality.com/news/fatty_acid_structure.html

Unsaturated fats

Proteins- a chain of amino acids

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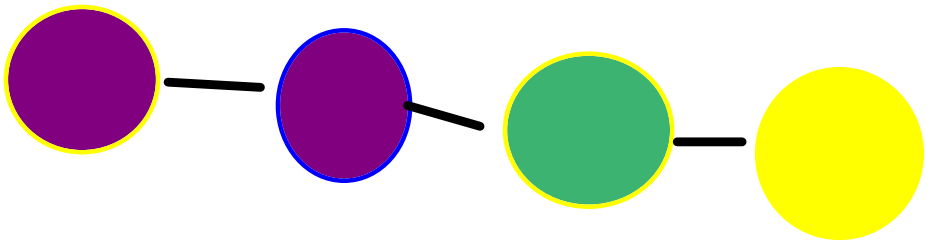
Amino acids- building blocks of proteins



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Primary Structure

Secondary Structure

Tertiary Structure

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Proteins are found in ligaments, tendons, hair, bones, muscles.

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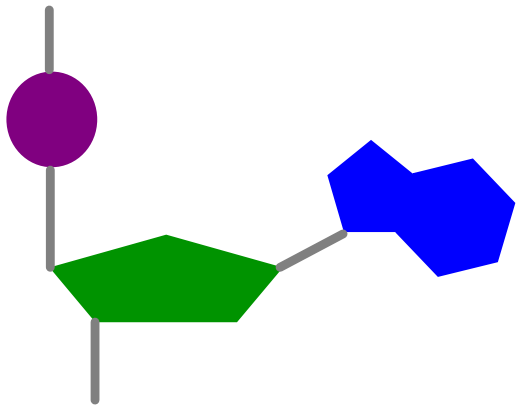
Nucleotide- three parts a sugar, a base, and a phosphate group



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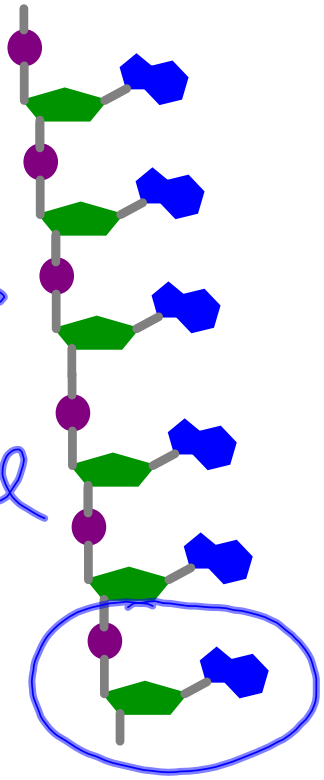
Nucleic acid

multiple nucleotide



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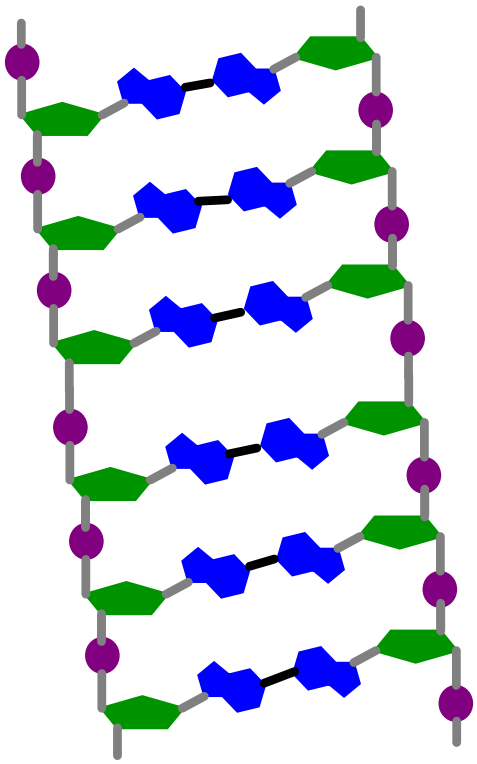
DNA

http://biology.clc.uc.edu/courses/bio104/dna.htm



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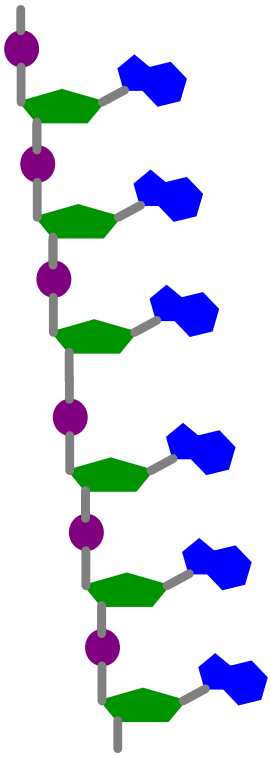
RNA



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