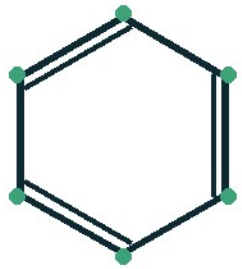
Organic Chemistry

The chemistry of carbon

WHAT IS IT?

Organic chemistry studies compounds built on carbon atoms, which can join in chains and rings. It explains the structure of fuels, plastics, medicines and the molecules of living things, and how they react.



a ring of 6 carbon atoms (C6H6)

THE BIG IDEAS

1. Carbon forms four bonds, so it builds chains, branches and rings.
2. Functional groups, such as –OH, decide how a molecule behaves.
3. Shape matters: the same atoms can be arranged in different ways.
4. Reactions are steps in which bonds break and new ones form.

YOU SEE IT WHEN ...

- Plastic bottles and fabrics
- Medicines and vitamins
- Fuels such as methane and propane

WORDS YOU WILL MEET

Hydrocarbon
a compound of only carbon and hydrogen

Functional group
a set of atoms with set behavior

Isomer
same atoms, different arrangement

Alkane
a hydrocarbon with single bonds only

Alcohol
a compound with an –OH group

Polymer
a long chain of repeating units

GOOD TO KNOW FIRST

General chemistry: atoms, bonds and the periodic table.

IN YOUR COURSE YOU WILL ...

- Name and draw carbon compounds
- Study reaction types and mechanisms
- Learn the main functional groups
- Work safely in the lab

Start tip: Practice drawing structures by hand; the shapes become familiar quickly.

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