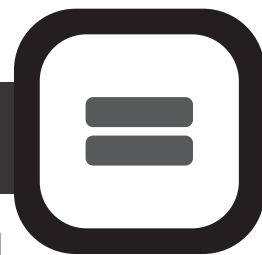


LEARNING JOURNEY SCIENCE



Organic Reactions [Seps Only]

Year 11 Autumn Half Term 1

The chemistry of carbon compounds is so important that it forms a separate branch of chemistry. A great variety of carbon compounds is possible because carbon atoms can form chains and rings linked by C-C bonds. This branch of chemistry gets its name from the fact that the main sources of organic compounds are living, or once-living materials from plants and animals.

This module continues your learning journey from Key Stage 3 where you studied Fuels, Air Pollution and Global warming. It links to the chemistry you will study on Polymers, , The Earth's Atmosphere and Resources in Key stage 4.

Organic Chemistry

10.1 Alkenes

You will compare and contrast alkane and alkene based structures as well as learning about the different reactions of alkenes. You will also discover what the general formula and homologous series of alkenes are and some of their uses

10.2 Organic functional groups

Building on from the homologous series of alkenes, you will study further homologous series for alcohols, carboxylic acids and esters. You will also practise writing and drawing the structures of a range of these compounds.

10.3 Alcohols

You will learn two ways in which we produce alcohol and look at the advantages and disadvantages of each method. We shall also look at the uses of alcohol.

10.4 Carboxylic acids and esters

A study of the compounds containing the functional groups for carboxylic acids and esters will be undertaken. We shall also look at the uses of these compounds.

10.5 Revision

Having studied four functional groups this module, we will aim to link our ideas together and practise some exam style questions to consolidate our learning.

TUDOR HABITS: You will continue to work on building your toolbox of mathematical thinking skills to support your metacognition and self-regulation

VOCABULARY: homologous series, functional group, combustion, addition reactions, saturated, unsaturated, fermentation, distillation, condensation reaction