

## OBHS Core Questions:

Subject: Science

Year and Term: Year 11 Autumn Term

Topic: C7 Organic Chemistry



Learn these questions to build a strong foundation of knowledge for this half-term. Ask family or friends to test you regularly, or practise on your own using the 'Look, Say, Cover, Write' method.

Question	Answer
1. What type of resource is crude oil?	Finite resource
2. What is crude oil formed from?	Very old dead organisms, mainly plankton
3. Roughly how long does it take for crude oil to form?	Millions of years
4. What type of molecules is found in crude oil?	Hydrocarbons
5. What elements are found in hydrocarbons?	Hydrogen and carbon
6. What is a common contaminant found in crude oil?	Sulphur
7. What is the general formula for alkanes?	$C_nH_{2n+2}$
8. Name the first four alkanes.	Methane, ethane, propane, butane
9. What process separates crude oil by its chain length?	Fractional distillation
10. Give an example of a fuel made from crude oil?	Petrol, diesel, kerosene, LPG
11. What is viscosity?	How thick or runny a substance is
12. What happens to boiling point as hydrocarbon size increases?	It increases
13. What happens to viscosity as hydrocarbon molecules get larger?	It increases
14. What happens to flammability as hydrocarbon size increases?	It decreases
15. What are the products of complete combustion of a hydrocarbon?	Carbon dioxide and water
16. What are the products of incomplete combustion?	Carbon, carbon monoxide and water

17. What process breaks large hydrocarbons into smaller ones?	Cracking
18. Name two methods of cracking.	Catalytic cracking and steam cracking
19. What two types of hydrocarbons are formed in cracking?	Alkanes and alkenes
20. What is a test for alkenes?	Bromine water will go from brown to colourless if an alkene is present
21. Why is cracking useful?	Produces shorter chain hydrocarbons which are useful as fuels
22. What are alkenes used for?	Making polymers (plastics)
23. Why is there a high demand for smaller hydrocarbons?	They are useful as fuels