

What is crude oil made up of?

List four alkanes.

m\_\_\_\_\_, e\_\_\_\_\_, p\_\_\_\_\_, b\_\_\_\_\_

Draw the following alkanes:



What is the formula for alkanes?

Describe how crude oil is made.

Keywords: fossil fuel, rock, long time, plankton

What are the uses of crude oil?

Fuel for t\_\_\_\_\_ e.g. p\_\_\_\_\_ and d\_\_\_\_\_.

Used to make other compounds such as p\_\_\_\_\_, l\_\_\_\_\_,  
s\_\_\_\_\_, d\_\_\_\_\_.

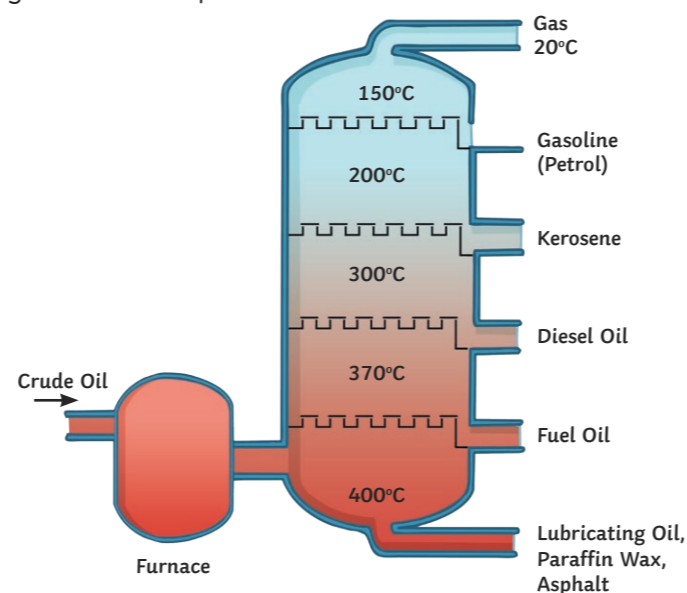
Complete the combustion equation.

hydrocarbon + oxygen →

Complete the balanced symbol equation.



Describe the process of fractional distillation. Use the diagram and keywords to help.



Keywords: mixture, hydrocarbons, evaporated, fractionating column, condense

How does the length of the hydrocarbon affect the boiling point?

The longer the hydrocarbon the **higher/lower** the boiling point.

Delete the wrong answer.

What is bromine water a test for? Choose the correct answer.

- a. alkane
- b. alkene

What colour does it go?

How does the length of the hydrocarbon affect the viscosity? Choose one answer.

- a. more viscous
- b. less viscous
- c. stays the same

Cracking is the breaking down of large chain \_\_\_\_\_ into shorter chains.

It produces \_\_\_\_\_ that have a double \_\_\_\_\_.

Draw a diagram of an alkene.

What is the formula for alkenes?

What are the two methods of cracking? Describe how both methods are done.

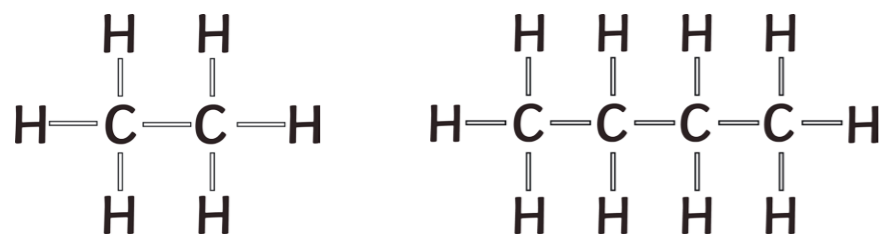
1. S\_\_\_\_\_

2. C\_\_\_\_\_

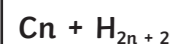
What is crude oil made up of?  
**Different length hydrocarbons.**

List four alkanes.  
**methane, ethane, propane, butane**

Draw the following alkanes:  
 $C_2H_6$   $C_4H_{10}$



What is the formula for alkanes?



Describe how crude oil is made.

Keywords: fossil fuel, rock, long time, plankton

**From the remains of dead plankton and other animals and plants buried in sand and mud over long periods of time.**

What are the uses of crude oil?

**Fuel for transport e.g. petrol and diesel.**

**Used to make other compounds such as polymers, lubricants, solvents, detergents.**

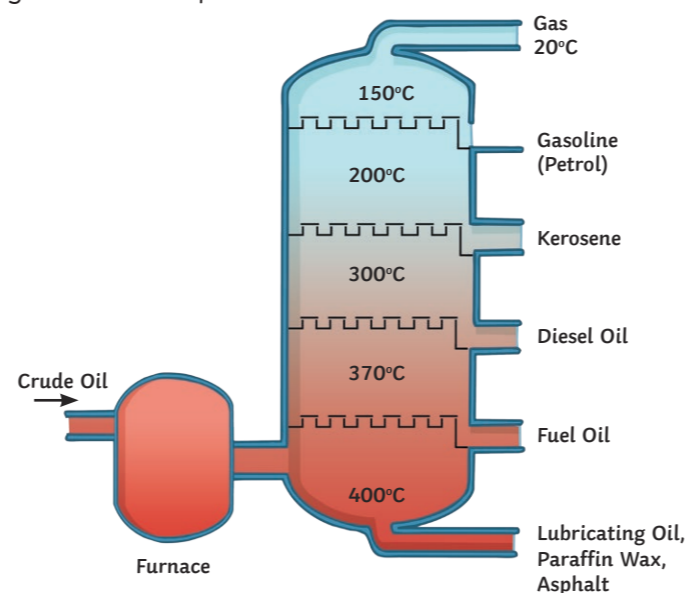
Complete the combustion equation.

hydrocarbon + oxygen → **carbon dioxide + water**

Complete the balanced symbol equation.



Describe the process of fractional distillation. Use the diagram and keywords to help.



Keywords: mixture, hydrocarbons, evaporated, fractionating column, condense

**Crude oil is a mixture of hydrocarbons and they are heated until they form a gas.**

**They all have different boiling points so separate out at different temperatures.**

**Long chain hydrocarbons have high boiling points, short chain molecules have low boiling points.**

How does the length of the hydrocarbon affect the boiling point?

The longer the hydrocarbon the **higher/lower** the boiling point.

Delete the wrong answer.

What is bromine water a test for? Choose the correct answer.

- a. alkane
- b. alkene**

What colour does it go?

**colourless**

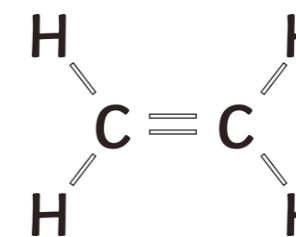
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- a. more viscous**
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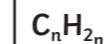
Cracking is the breaking down of large chain **hydrocarbons** into shorter chains.

It produces **alkenes** that have a double **bond**.

Draw a diagram of an alkene.



What is the formula for alkenes?



What are the two methods of cracking? Describe how both methods are done.

**Steam – heated into a vapour, mixed with steam, heated at very high temperature.**

**Catalytic – heated into a gas, passed over aluminium oxide catalyst, molecules split.**