# Cracking and Alkenes

## Cracking and Alkenes Information: Highlight key words in the text below

Cracking is a process used in the petrochemical industry to break down large hydrocarbon molecules into smaller, more useful molecules. This is done by heating the hydrocarbons so that they vaporise and then passing them over a hot catalyst or mixing them with steam. Cracking produces shorter-chain alkanes and alkenes. Alkenes are unsaturated hydrocarbons that contain a carbon–carbon double bond, which makes them more reactive and useful for making polymers and other chemicals.

## Answer the questions below

What is cracking?

_____

What type of hydrocarbons are produced during cracking?

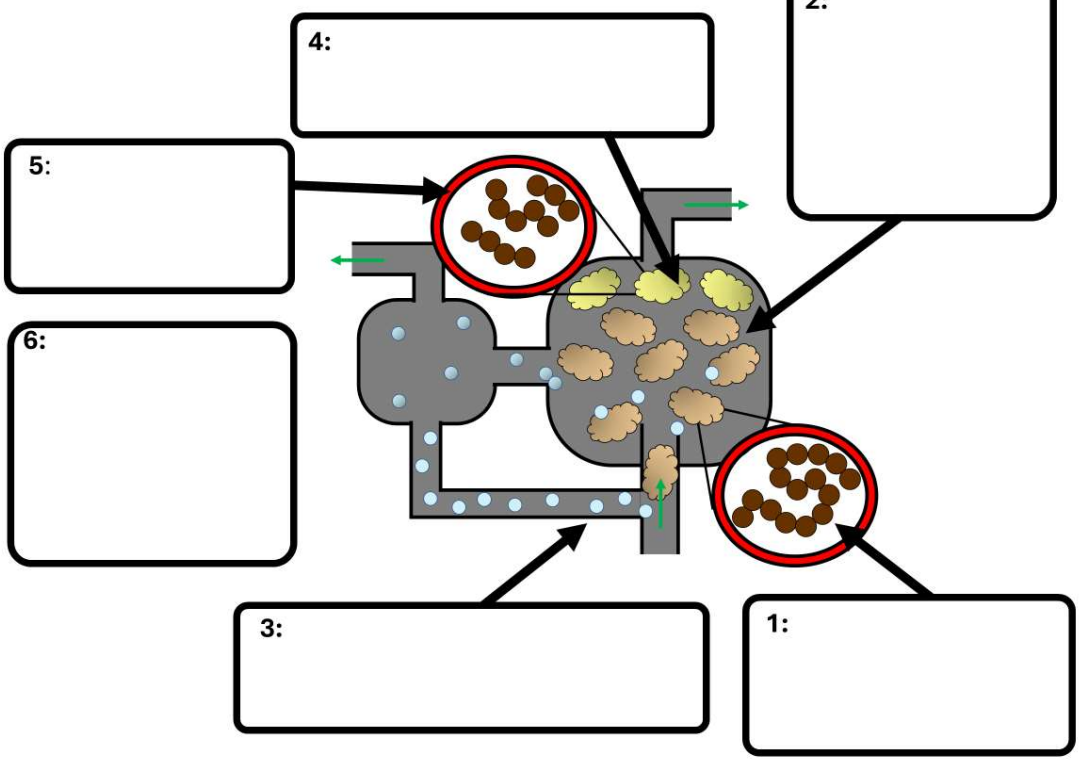
_____

Why are alkenes more reactive than alkanes?

_____

## Annotate the diagram below to explain the process of cracking

### Cracking




**Key questions**

What happens to long-chain hydrocarbons during cracking?

What must happen to the hydrocarbons before they pass over the catalyst?

What is used to help the reaction occur faster in catalytic cracking?

What happens to the hydrocarbon chains during cracking?

What two types of hydrocarbons are produced by cracking?

Why is cracking important in the petrochemical industry?

Short Answers

Summary video

Diagram walkthru