1. This question is about some of the reactions of ethene, C2H4.

Complete the spider diagram by drawing the structures of the products formed.

Bromine, Br2

Hydrogen with a nickel catalyst at 150°C





Chlorine, Cl2

Steam, 300°C, 60 atm, phosphoric acid catalyst



1. Cover up your answers to question 1.

Write the reagents and conditions needed for the reactions by writing answers on the arrows. This time, propene is used instead of ethene.



***Answer:*** *Hydrogen with a nickel catalyst at 150°C.*





***Answer:*** *Steam, 300°C, 60 atm, phosphoric acid catalyst.*

1. This question is about reactions of ethanol, C2H5OH.

Complete the spider diagram by drawing the structures of the products formed.







Oxidising agent e.g. acidified potassium manganate(VII) or sodium dichromate(VII)

Combustion, O2

Sodium metal

Ethanoic acid and an acid catalyst

Concentrated sulfuric acid or phosphoric acid

***Answer:*** *Carbon dioxide and water.*

1. Cover up your answers to question 3.

Write the reagents and conditions needed for the reactions below by writing answers on the arrows.

This time, propan-1-ol is used instead of ethanol.



Carbon dioxide
and water

***Answer:*** *Ethanoic acid and an acid catalyst.*

***Answer:*** *Sodium metal.*

***Answer:*** *Oxidising agent e.g. acidified potassium manganate(VII) or sodium dichromate(VII).*

***Answer:*** *Concentrated sulfuric acid or phosphoric acid.*



***Answer:*** *Combustion, O2.*

