

Chemistry  
PAPER 2:  
Foundation Tier

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

## INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

**THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.**

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## Question 1(d)

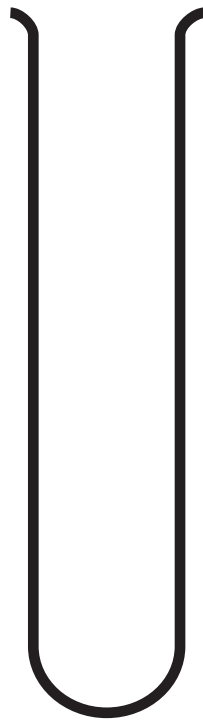
FIGURE 1

substance	percentage composition
abrasives	35%
water	
other substances	25%

## Question 2(a)

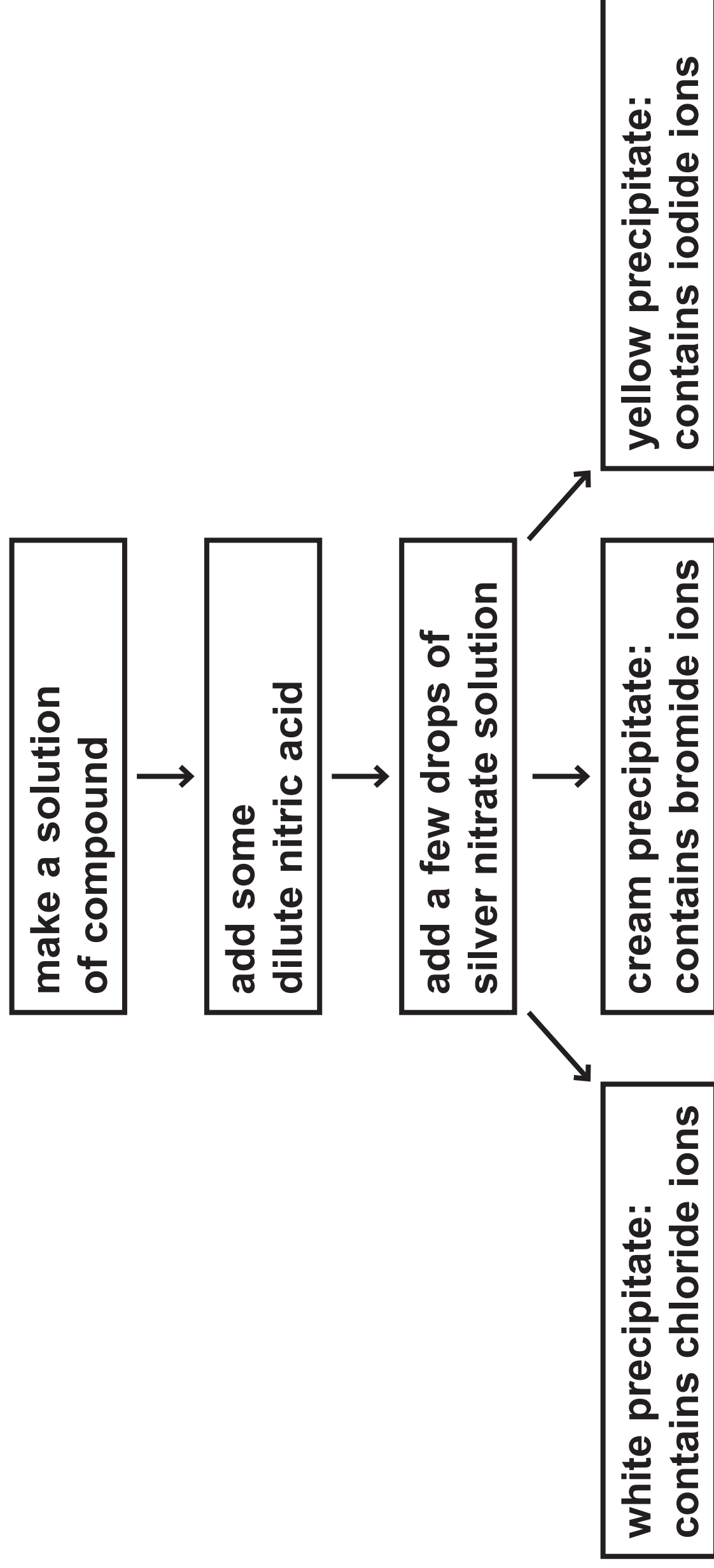
FIGURE 2

symbol	melting point in °C
Li	181
Na	98
K	64

**Question 2(b)****FIGURE 3**

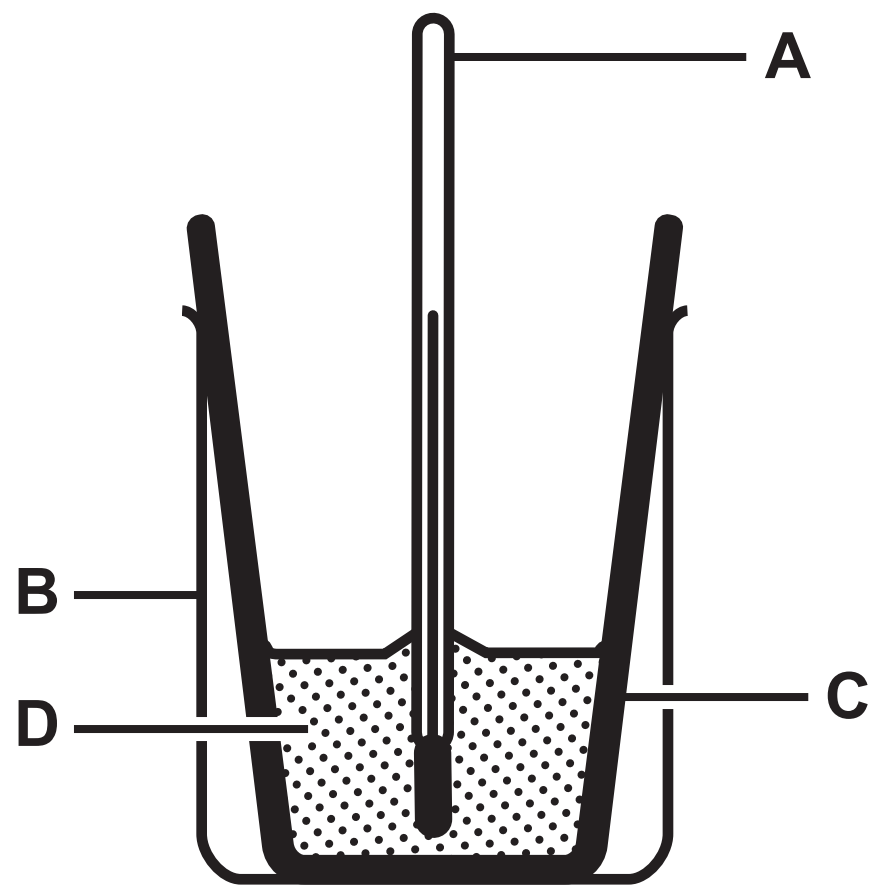
## Question 3

FIGURE 4



## Question 4(b)

FIGURE 5



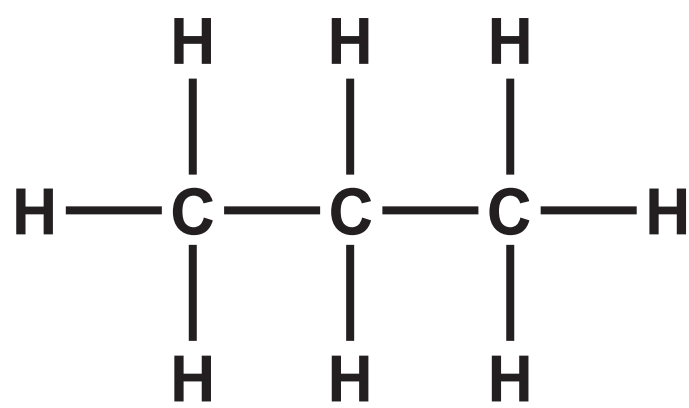


**Question 4(b)(iv)****FIGURE 6**

<b>temperature of liquid at start in °C</b>	<b>18·6</b>
<b>temperature of products at end in °C</b>	<b>16·1</b>

## Question 5(a)

FIGURE 7



## Question 5(b)

fraction

use

petrol •

• fuel for aircraft

• fuel for ships

kerosene •

• fuel for cars

• making plastic

bitumen •

• extracting iron

• making road surfaces

Question 5(b)

fraction	use
petrol	fuel for aircraft
kerosene	fuel for ships
bitumen	fuel for cars
	making plastic
	extracting iron
	making road surfaces

FIGURE 8

halogen	description of reaction with heated iron wool
bromine	reacts quickly
chlorine	reacts very quickly
iodine	reacts slowly

Question 6(c)

**an acid**

**a catalyst**

**higher**

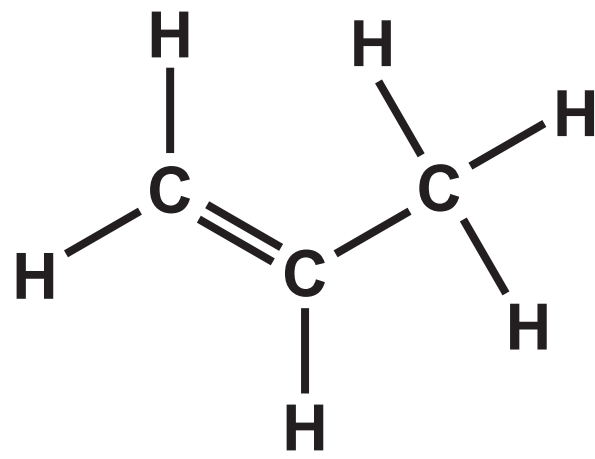
**lower**

**a reactant**

**unchanged**

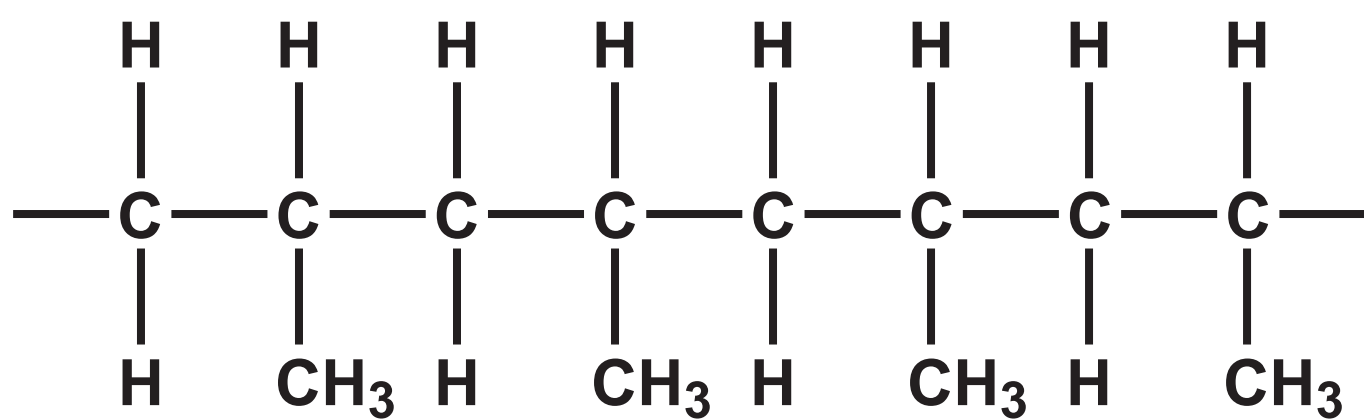
## Question 7

FIGURE 9



## Question 7(c)

FIGURE 10





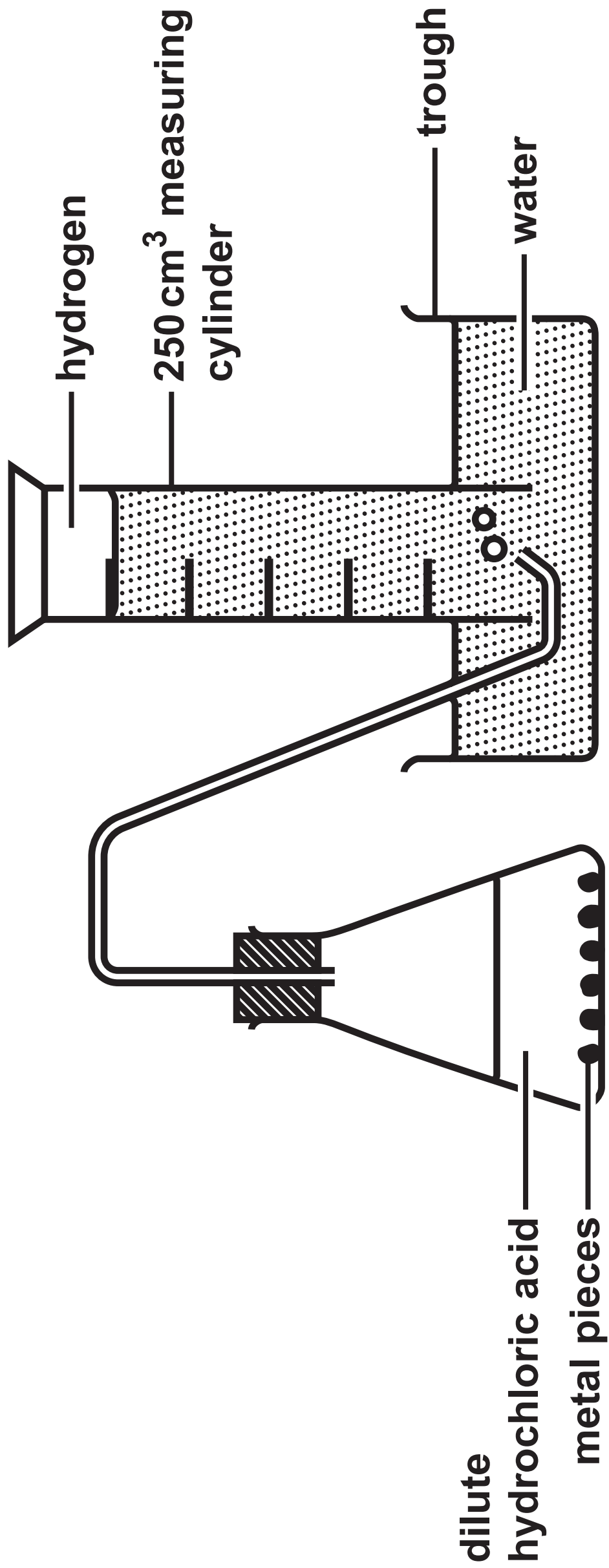
Question 7(d)

FIGURE 11

alkane	temperature change in °C
methane	9
ethane	16
propane	22
butane	29

Question 8

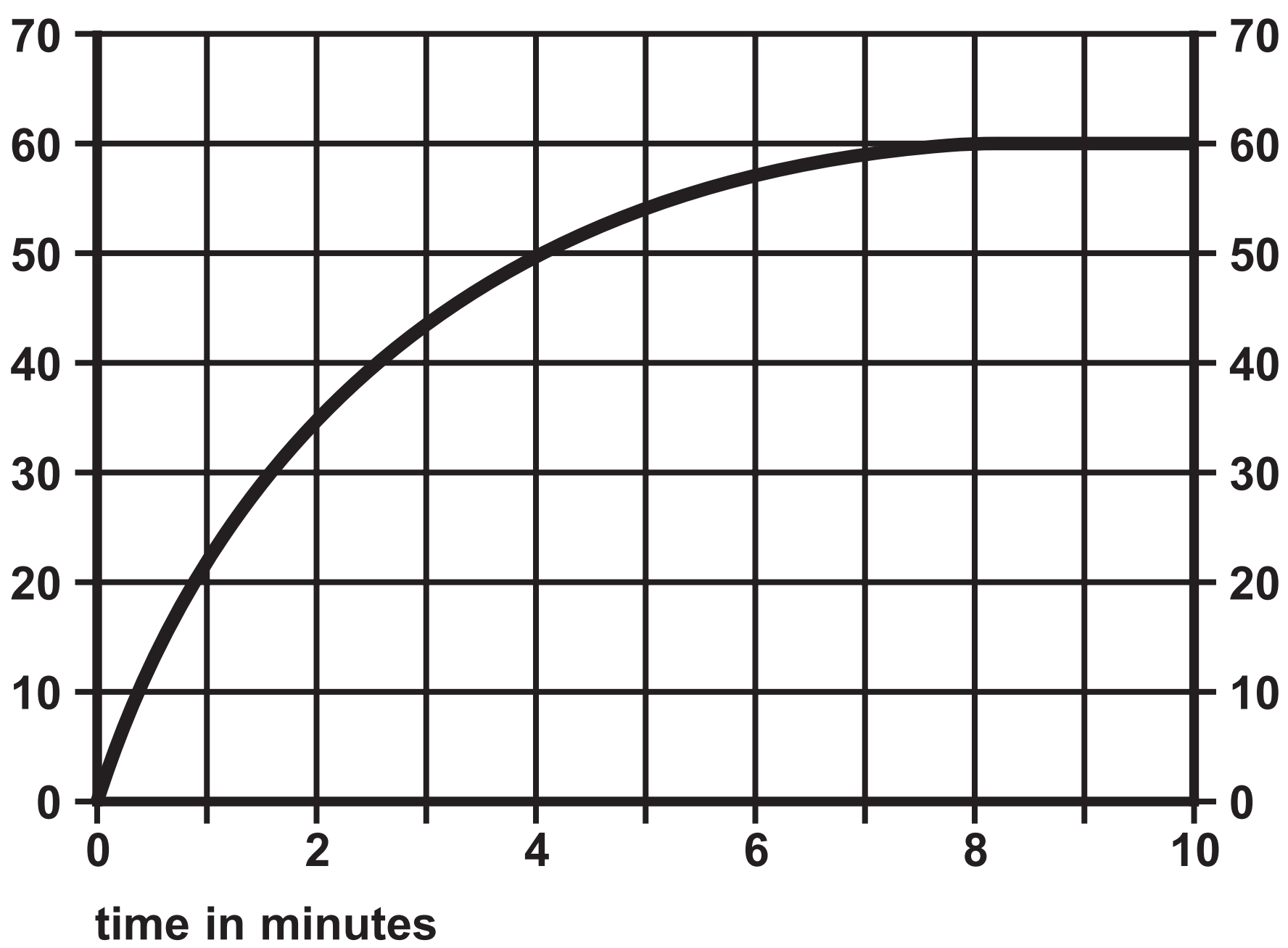
FIGURE 12



## Question 8(a)

FIGURE 13

volume of hydrogen  
in  $\text{cm}^3$



## Question 9(d)

FIGURE 14

## Key

⊖ = electron

● = neutron

⊕ = proton

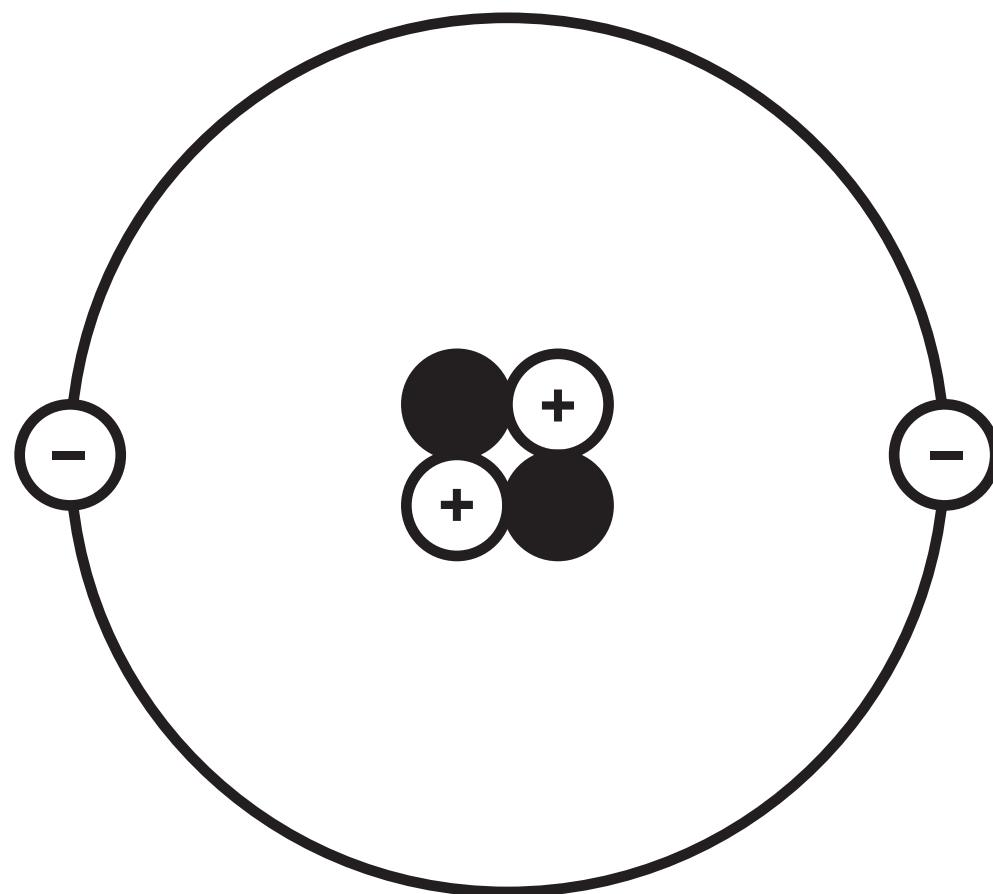
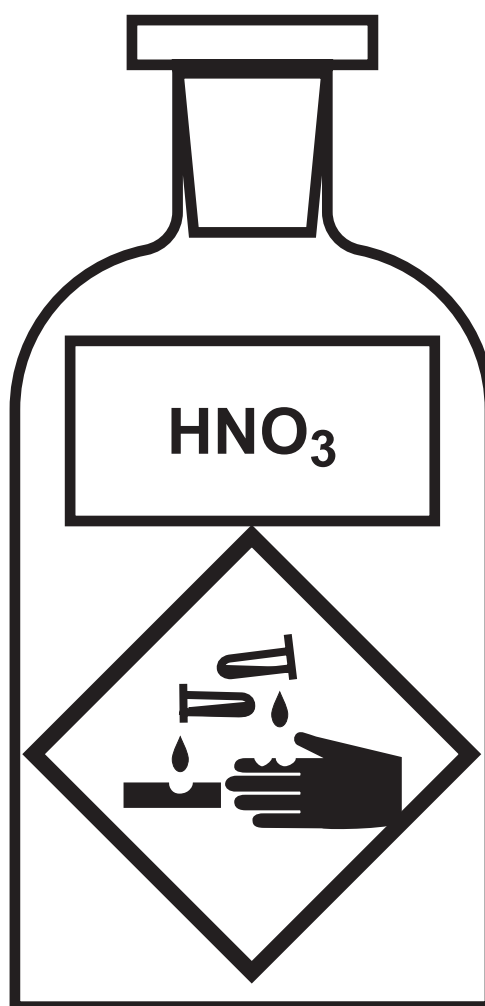


FIGURE 15

gas	relative amount in early atmosphere	composition of today's atmosphere
water vapour	large amount	0 % to 4 %
carbon dioxide	large amount	less than 0·5 %
oxygen	little or none	21 %

## Question 10(a)

FIGURE 16



Question 10(b)(ii)

FIGURE 17

compound	flame colour
P	red
Q	lilac
R	blue-green