

1 Draw a line to match up the words with the correct description.

Element

Set group of two or more atoms joined together.

Compound

The simplest particles of matter, which we think of as being like a tiny ball.

Atom

Simplest type of substance. Contains only one kind of atom.

Molecule

Contains different kinds of atoms jumbled up but not joined together.

Mixture of elements

Contains two or more kinds of atoms (elements) joined together.

2 Tick one box to say if each the following substances are elements or compounds.

Element

Compound

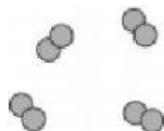
nitrogen

argon

oxygen

carbon dioxide

3 Write the word 'atoms' or 'molecules' below the correct diagrams.



## Aim

To find out if the volume of available air affects the time a candle will burn under a beaker.

## Introduction

Candles use the oxygen in air when they burn and will go out when the oxygen is used up.

## Prediction

- 1 What do you think will happen?

## Method

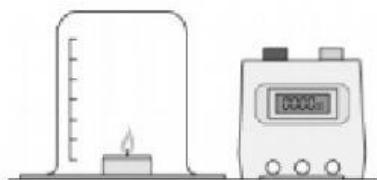
### Apparatus

- tea light/candle
- different sized beakers:  $200\text{ cm}^3$ ,  $300\text{ cm}^3$ ,  $400\text{ cm}^3$ ,  $500\text{ cm}^3$
- heat-resistant mat
- stop clock
- lighter



Take care to keep flammable materials away from flames.  
Wear eye protection.

- A Place a tea light/candle on a heat-resistant mat.
- B Light the candle and immediately, but carefully, place a beaker over it.
- C Time how long it takes for the candle to go out.
- D Record the volume of the beaker and the time for flame to go out.
- E Repeat steps A to D, changing the size of the beaker used.



## Recording your results

Record your results in the table below.

Volume of beaker ( $\text{cm}^3$ )	Time to go out (s)