

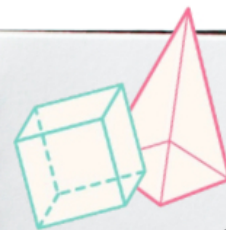
# Masefield

Research  
THE ENGINEER

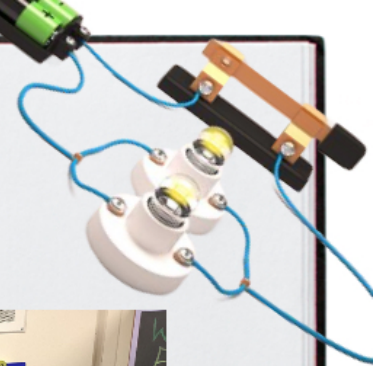
16/05/13  
I researched the designer (Mrs Graham-Sloan).  
She was one of the great cooks.  
Three winning dishes of Great British menu.  
She supported good causes.  
She was named head chef at Northcote one of the proudest chef of Oxford.  
She was younger than us to rice and was into porridge too.

# Design

TO MEET A BRIEF

[illegible]

Create  
THE PRODUCT



1. What is the purpose of the experiment?  
 To determine the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

2. What is the hypothesis?  
 The rate of reaction will increase as the temperature increases.

3. What are the variables?  
 Independent variable: Temperature  
 Dependent variable: Rate of reaction (measured by the volume of gas produced)

4. What are the materials and apparatus?  
 Hydrogen peroxide solution, Potassium iodide solution, Conical flask, Measuring cylinder, Stopwatch, Water bath.

5. What is the procedure?  
 1. Prepare a series of water baths at different temperatures (e.g., 10°C, 20°C, 30°C, 40°C, 50°C).  
 2. Measure a fixed volume of hydrogen peroxide solution (e.g., 10 cm³) and place it in a conical flask.  
 3. Measure a fixed volume of potassium iodide solution (e.g., 10 cm³) and place it in a separate container.  
 4. Quickly mix the two solutions in the conical flask placed in the water bath.  
 5. Measure the volume of gas produced at regular intervals (e.g., every 30 seconds) using a gas syringe or by measuring the displacement of water in an inverted measuring cylinder.  
 6. Repeat the experiment for each temperature.  
 7. Record the results in a table.

6. What are the results?  
 (This section would contain a table of experimental data showing the volume of gas produced over time at different temperatures.)

7. What is the conclusion?  
 The experiment confirms the hypothesis that the rate of reaction increases with temperature.

8. What are the limitations and sources of error?  
 Limitations: The experiment only shows a qualitative trend. Sources of error: Inaccurate measurement of gas volume, inconsistent mixing of solutions, fluctuations in water bath temperature.

# Evaluate

## AGAINST THE BRIEF

