GCSE

S25-3400U30-1F

To be opened on MONDAY, 6 JANUARY 2025 by TEACHERS

MONDAY, 6 JANUARY – FRIDAY, 21 FEBRUARY 2025

SCIENCE – PRACTICAL ASSESSMENT

BIOLOGY – Unit 3 (3400U30)

CHEMISTRY – Unit 3 (3410U30)

PHYSICS – Unit 3 (3420U30)

SCIENCE (Double Award) – Unit 7 (3430U70)

APPLIED SCIENCE (Double Award) – Unit 5 (3445U50)

APPLIED SCIENCE (Single Award) – Unit 4 (3440U40)

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Setting up Instructions

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This document should be stored securely by the exams officer when not in use by the teacher / technician.
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Its contents should not be divulged except to those concerned with the preparation of the assessment.

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GCSE

BIOLOGY – Unit 3

INVESTIGATING THE EFFECT OF SUBSTRATE CONCENTRATION ON THE RATE OF ENZYME ACTION

Introduction

The enzyme catalase is found in germinated mung beans. It catalyses the breakdown of toxic hydrogen peroxide solution into harmless water and oxygen.

Your task is to investigate the effect of increasing the concentration of the substrate hydrogen peroxide solution on the rate of enzyme action.

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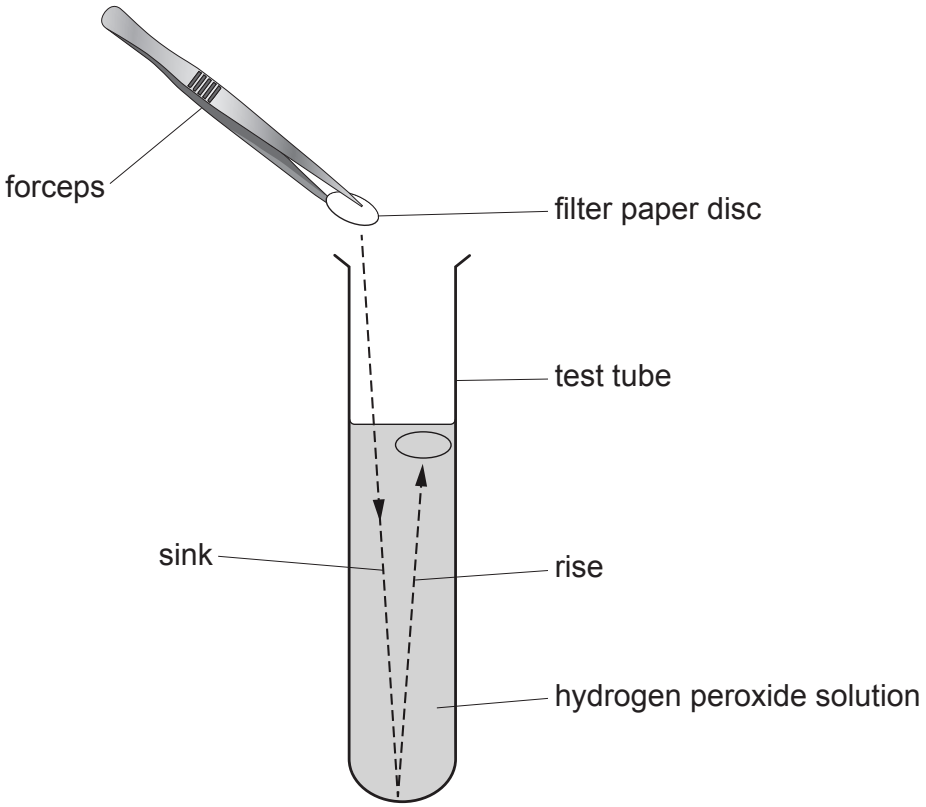
Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

eye protection
1 × 10 cm^3 measuring cylinder
5 × 10 cm^3 syringe
1 × forceps
5 × test tube
15 × filter paper disc
1 × stopwatch (± 0.01 s)
2 × germinated mung beans
1 × pestle and mortar
20 cm^3 of hydrogen peroxide solution at concentrations of 2, 4, 6, 8 and 10 vol
1 × 100 cm^3 beaker of deionised water
paper towels

CLEAPSS student safety sheets: 2 – Enzymes and 57 – Hydrogen peroxide. These will be provided in Section **A** of the candidate's examination paper if required.

Diagram



Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Wear eye protection.
2. Measure 5 cm^3 of deionised water using the measuring cylinder.
3. Use the pestle and mortar to grind two germinated mung beans with the 5 cm^3 of deionised water to produce an enzyme solution.
4. Use a syringe to measure 10 cm^3 of 2 vol hydrogen peroxide solution and place into a test tube.
5. Use forceps to dip a filter paper disc into the enzyme solution. Wipe off the excess on a paper towel.
6. Drop the filter paper disc into the 2 vol hydrogen peroxide solution and immediately start the stopwatch. If the disc sticks to the side of the test tube, then gently push it with the forceps into the hydrogen peroxide solution.
7. Record the time taken, **in seconds**, for the filter paper disc to sink and rise to the top again.
8. Remove the disc using forceps and discard.
9. Repeat steps 5–8 two more times to get a total of three results. Use the same test tube of 2 vol hydrogen peroxide solution each time.
10. Repeat steps 4–9 for concentrations of 4 vol, 6 vol, 8 vol and 10 vol hydrogen peroxide solution.

Teacher / Technician Notes

- ‘Germinated mung beans’ are commonly known as beansprouts and can be purchased from the vegetable aisle of any supermarket.
- Candidates should be provided with labelled beakers of 2, 4, 6, 8 and 10 vol hydrogen peroxide. Candidates must be aware of the maximum concentration of hydrogen peroxide used in vol.
- Any type of forceps can be used but candidates may find sharp forceps easier to use with this method.
- A hole punch can be used to produce the filter paper discs.
- Specimen bottles can be used as an alternative to test tubes.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **“Information required from centres”** sheet on page **27** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

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GCSE

CHEMISTRY – Unit 3

INVESTIGATING THE RATE OF THE REACTION BETWEEN CALCIUM CARBONATE AND HYDROCHLORIC ACID

Introduction

Your task is to investigate the effect of changing temperature on the rate of the reaction between calcium carbonate and dilute hydrochloric acid.

Apparatus Required

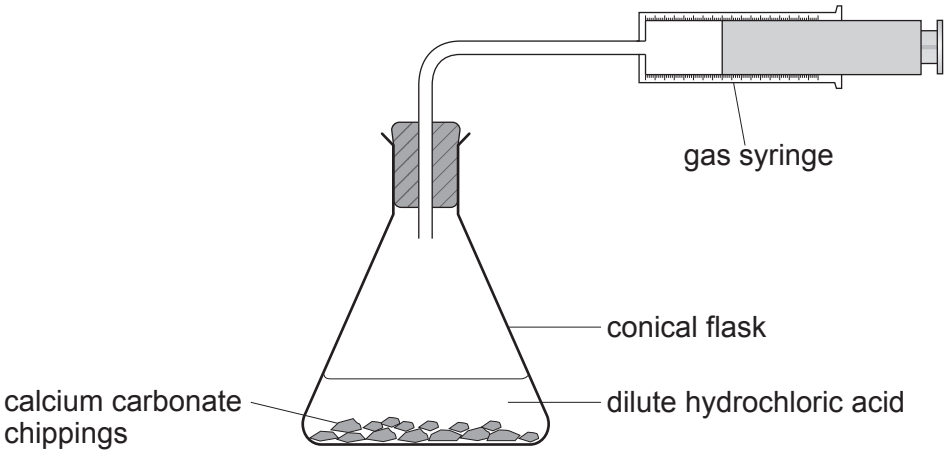
The following apparatus is required for each group: (each group should consist of no more than three candidates).

eye protection
1 × 100 cm^3 conical flask
1 × 25 cm^3 measuring cylinder
1 × 100 cm^3 gas syringe
1 × single holed rubber bung connected to delivery tube
1 × thermometer (-10 °C – 110 °C)(± 1 °C)
5 × 2 g pre-weighed sample of calcium carbonate chippings (2–4 mm in diameter)
1 × 250 cm^3 beaker containing approximately 150 cm^3 of dilute hydrochloric acid (1 mol / dm^3)
1 × stopwatch (± 0.01 s)

Access to:
waste bowl
water bath – set at 60 °C

CLEAPSS student safety sheet: 20 – Hydrochloric acid. This will be provided in Section **A** of the candidate's examination paper if required.

Diagram



Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Wear eye protection.

2. Connect the delivery tube to the gas syringe as shown in the diagram.

3. Take a beaker containing dilute hydrochloric acid (1.0 mol / dm^3) from the water bath at approximately 60 °C.

4. Use the measuring cylinder to measure 25 cm^3 of the dilute hydrochloric acid.

5. Pour the dilute hydrochloric acid into the conical flask.

6. Measure and record the temperature of the acid in the conical flask.

7. Add 2 g of pre-weighed calcium carbonate chippings to the conical flask and **quickly** insert the rubber bung.

8. Whilst continuously swirling the flask, record the time taken **in seconds** to collect 100 cm^3 of gas in the gas syringe.

9. Empty the contents of the conical flask into the waste bowl and rinse with cold water.

10. Repeat steps 4–9 using hydrochloric acid at approximately 50 °C, 40 °C, 30 °C and 20 °C. Give the acid in the beaker time to cool to reach the required temperatures.

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Teacher / Technician Notes

- 2 g pre-weighed masses of calcium carbonate chippings should be accurately weighed to ± 0.2 g.
- The recommended size of the calcium carbonate chippings is 2–4 mm. Other sized chippings can be used, although this will affect the reaction times.
- Powdered calcium carbonate must not be used since the reaction times will be too short and will therefore not produce a suitable set of results.
- It is possible to obtain suitable results using either glass or plastic gas syringes. Plastic gas syringes are available cheaply from suppliers such as Amazon.
- You may wish to use a clamp and stand to hold the gas syringe.
- If using a glass gas syringe you may wish to attach the plunger to the barrel with string to prevent it falling out.
- A cold water bath may be used to speed up the cooling process to reach the approximate temperatures.
- Candidates can be told the temperatures can be approximately 60 °C, 50 °C, 40 °C, 30 °C and 20 °C.
- Beakers of dilute hydrochloric acid should be placed into the 60 °C water bath beforehand in order to reach the desired temperature by the start of the assessment.
- If electronic water baths are not available, centres may use beakers of hot water as an alternative.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **29** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

PHYSICS – Unit 3

INVESTIGATING THE RESISTANCE OF A LIGHT DEPENDENT RESISTOR

Introduction

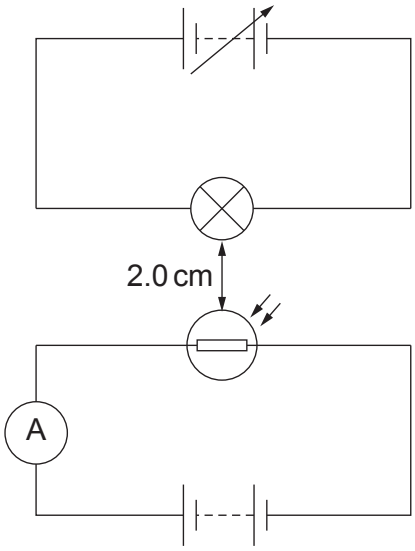
Your task is to investigate the effect of light intensity on the resistance of a light dependent resistor (LDR).

Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

1 × power supply (set to 12 V for LDR)
1 × variable power supply (0 – 12 V for lamp)
1 × LDR
1 × clamp and stand
1 × ammeter (range 0 – 200 mA) (± 0.1 mA)
1 × 12 V, 24 W filament lamp

Diagram



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Read the method and answer question 1.(a) before carrying out the experiment and recording your results.

Method

1. The circuits in the diagram have been set up for you. The LDR is positioned 2.0 cm away from the lamp. They must remain at this distance throughout the experiment.

2. Set the voltage across the lamp to 4 V.

3. Use the ammeter to measure and record the current.

4. Repeat steps 2–3 for voltages across the lamp of 6 V, 8 V, 10 V and 12 V.

5. Repeat steps 2–4 to obtain a total of two sets of results.

Teacher / Technician Notes

- The circuits should be set up as in the diagram for the candidates, with the LDR approximately 2.0 cm from the lamp.
- If multimeters are used, they should be set up prior to use with 2 × connecting wires connected in the correct position.
- Use the clamp to secure the position of the LDR.
- An ORP12 LDR or equivalent is suitable for use in this experiment.
- The variable power supply will need to be able to increase in 1 V or 2 V intervals up to 12 V.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **31** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

BIOLOGY – Unit 3
SCIENCE (Double Award) – Unit 7
APPLIED SCIENCE (Double Award) – Unit 5

INVESTIGATING THE EFFECT OF GLUCOSE CONCENTRATION WHEN TESTING FOR DIABETES

Introduction

Your task is to carry out an investigation into the effect of glucose concentration when testing for diabetes.

Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

eye protection
1 × 250 cm^3 beaker
5 × test tube containing 2 cm^3 of glucose solution at concentrations of 10%, 20%, 30%, 40% and 50% in a test tube rack
1 × stopwatch (± 0.01 s)
1 × Bunsen burner
1 × tripod and gauze
1 × heatproof mat
1 × bottle of Benedict's solution
1 × 2 cm^3 pipette
splints

CLEAPSS student safety sheet: 4 – Food Testing (1). This will be provided in Section **A** of the candidate's examination paper if required.

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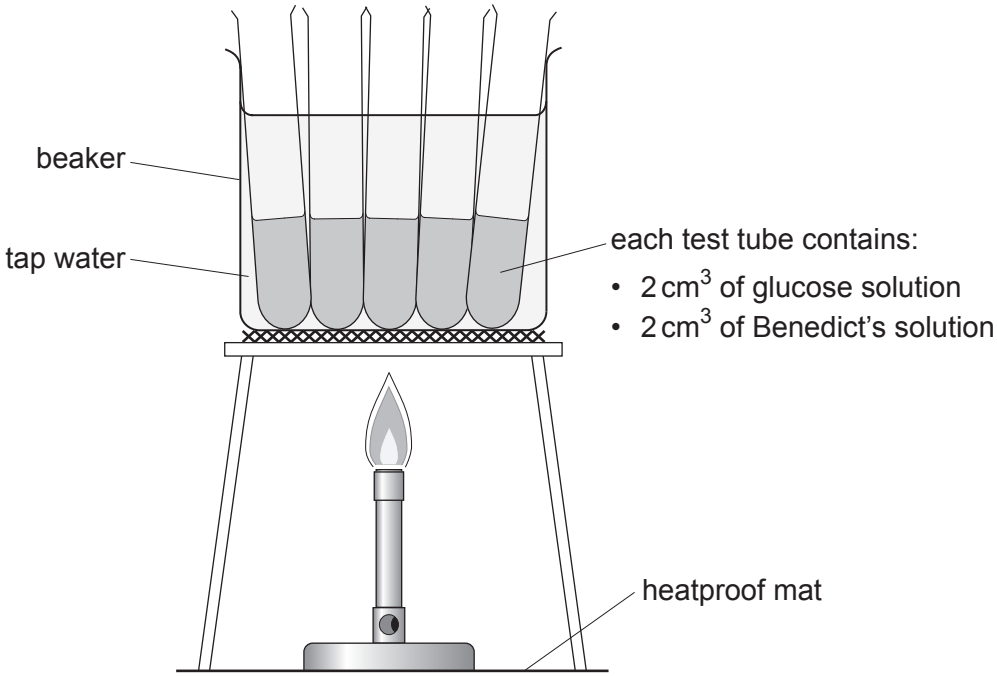
Diagram



Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Wear eye protection.
2. Half fill the 250 cm^3 beaker with cold tap water. Place this onto the tripod and gauze.
3. Use the pipette to add 2 cm^3 of Benedict's solution to each test tube of glucose solution.
4. Place all five test tubes into the beaker of cold water.
5. Use a lighted splint to light the Bunsen burner. Use the blue flame to heat the beaker of water containing the five test tubes.
6. Once the Bunsen burner is lit, start the stopwatch.
7. Record the time taken **in seconds** for the contents of each test tube to turn completely orange / brick red.

Teacher / Technician Notes

- Solutions of glucose should be made up by mass in volume. For example: to make up 50% solution, dissolve 50 g of glucose in 100 cm^3 of water.
- Candidates should be provided with labelled test tubes containing 2 cm^3 of glucose solution at concentrations of 10%, 20%, 30%, 40% and 50%.
- The end point may vary and may not reach brick red (depending on Benedict's solution). In this instance it is acceptable to tell candidates that the end point is orange. Trialling is essential in each centre to ascertain the end point.
- Any candidates with colour blindness can be placed in a group with non-colourblind candidates.
- In trialling it was found that better results were obtained when the gauze was unfolded from the underside of the tripod.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **33** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

CHEMISTRY – Unit 3
SCIENCE (Double Award) – Unit 7

INVESTIGATING THE ELECTROLYSIS OF COPPER(II) SULFATE

Introduction

Your task is to investigate the effect of electrode length on the electrolysis of copper(II) sulfate solution.

Apparatus Required

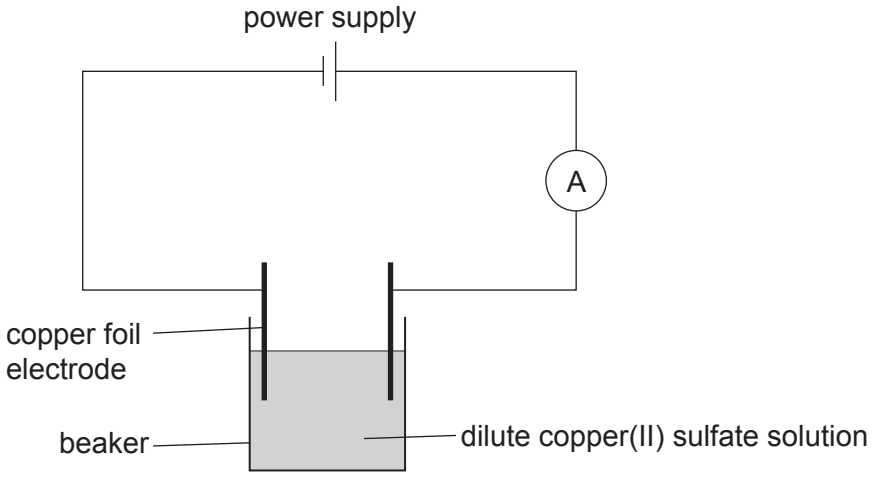
The following apparatus is required for each group: (each group should consist of no more than three candidates).

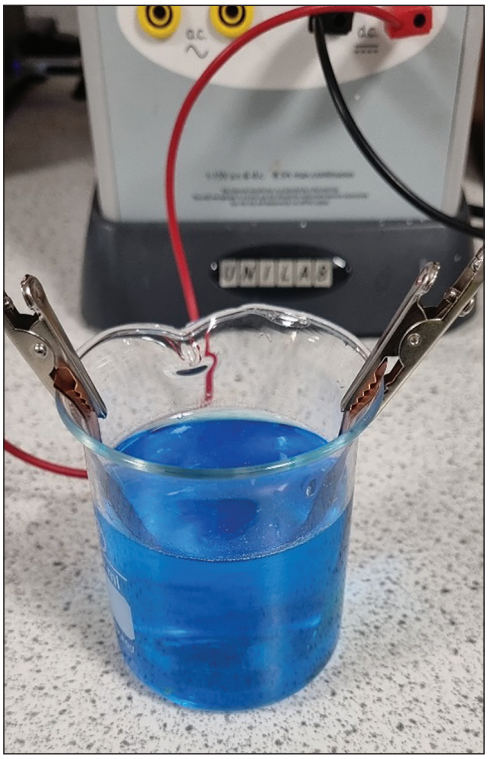
eye protection
1 × 250 cm^3 beaker
1 × d.c. power supply set at 6 V
1 × ammeter (± 0.01 A)
1 × 250 cm^3 measuring cylinder
3 × connecting wire
2 × crocodile clip
2 × copper foil electrode (1 cm width)
200 cm^3 of dilute copper(II) sulfate solution (0.5 mol / dm^3)

Access to:
waste bowl

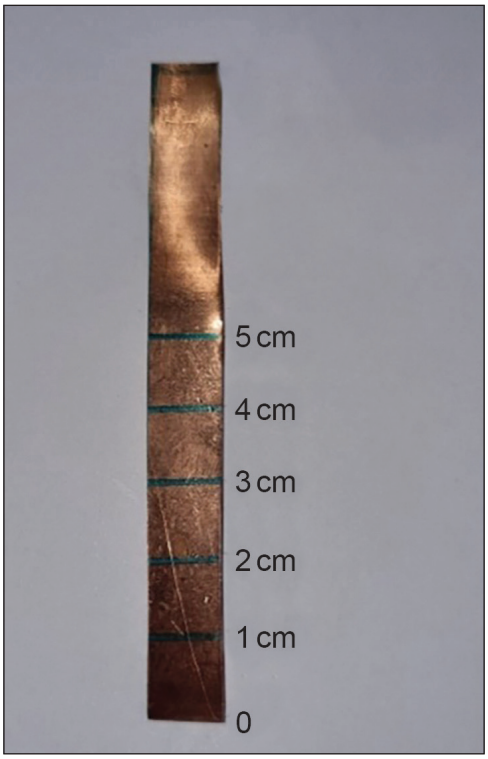
CLEAPSS student safety sheet: 40 – Copper and its compounds. This will be provided in Section **A** of the candidate's examination paper if required.

Diagram





Electrodes clipped to sides of the beaker



Copper foil electrode

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Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Wear eye protection.
2. Use the measuring cylinder to measure 200 cm^3 of dilute copper(II) sulfate solution into the beaker.
3. Clip the copper foil electrodes, using the crocodile clips, to opposite sides of the beaker containing dilute copper(II) sulfate solution so that 5 cm of each electrode is immersed.
4. Connect the electrodes and the ammeter to the power supply.
5. Switch on the power supply, measure and record the current **immediately**.
6. Switch off the power supply.
7. Repeat steps 5–6 two more times to give a total of three results.
8. Repeat steps 3–7 adjusting both electrodes so that the following lengths are immersed in the dilute copper(II) sulfate solution: 4 cm, 3 cm, 2 cm and 1 cm.
9. Pour the contents of the beaker into the waste bowl and wash your hands.

Teacher / Technician Notes

- Copper foil electrodes should be 1 cm wide and approximately 9 cm in length (dependent on the beaker used). The electrodes should be marked with centimetre lines up to 5 cm using a permanent marker.
- The beaker size is not important but must be large enough to contain enough copper(II) sulfate solution to immerse the electrodes up to a depth of 5 cm.
- Each group will need at least 200 cm^3 of copper(II) sulfate solution which should be enough to immerse the electrodes to a depth of 5 cm.
- Multimeters should be provided to candidates with cables placed in the correct, 0-10 A, sockets to avoid damaging the equipment.
- Copper foil available from Sci-Chem: CO 055 copper foil 0.13 mm, 250 g which is 1.3 m × 15 cm
- Copper(II) sulfate solution can be reused.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **35** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

PHYSICS – Unit 3
SCIENCE (Double Award) – Unit 7

INVESTIGATING THE EFFECT OF DROP HEIGHT ON THE SIZE OF AN IMPACT CRATER

Introduction

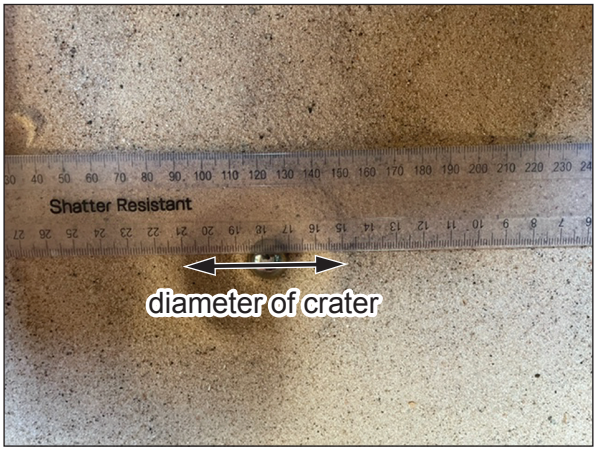
Your task is to investigate the effect of drop height on the diameter of an impact crater.

Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

1 × small steel ball
1 × clamp and stand
1 × metre ruler (± 1 mm)
1 × tray containing dry sand
1 × 30 cm ruler (± 1 mm)

Diagram



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Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Clamp the metre ruler into the clamp and stand. Place the 0 cm end of the metre ruler on top of the sand inside the tray.

2. Hold the ball level with the 20 cm mark on the metre ruler, above the middle of the tray.

3. Drop the ball into the middle of the tray.

4. Use the 30 cm ruler to measure the diameter of the crater made by the ball. Record this value.

5. Use the 30 cm ruler to smooth over the sand.

6. Repeat steps 2–5 two more times to get three results in total.

7. Repeat steps 2–6 for drop heights of 40 cm, 60 cm, 80 cm and 100 cm.

Teacher / Technician Notes

- Play sand worked well in trials and is readily available.
- Gratnell trays were suitable, filled with several cm depth of sand (minimum 3 cm).
- Small steel balls (diameter approximately 1.5 cm) gave more clearly defined craters, but marbles could also be used.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **37** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

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GCSE

APPLIED SCIENCE (Double Award) – UNIT 5

INVESTIGATING THE RATE OF DISSOLVING OF POTASSIUM NITRATE

Introduction

Your task is to investigate the effect of temperature on the rate of dissolving of potassium nitrate.

Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

eye protection
2 × 500 cm^3 beaker
1 × 100 cm^3 beaker
1 × thermometer (-10 °C – 110 °C)(± 1 °C)
1 × 50 cm^3 measuring cylinder
5 × 3 g pre-weighed sample of potassium nitrate(V)
1 × stopwatch (± 0.01 s)
1 × stirring rod
1 × A4 black card

Access to:
waste bowl
hot water

CLEAPSS student safety sheet: 34 – Sodium and potassium salts. This will be provided in Section **A** of the candidate's examination paper if required.

Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Wear eye protection.

2. Half fill one 500 cm^3 beaker with hot water at approximately 60 °C and the other 500 cm^3 beaker with cold water.

3. Use the measuring cylinder to measure 50 cm^3 of hot water at approximately 60 °C and pour it into the 100 cm^3 beaker. Measure and record the temperature of this water.

4. Place the A4 black card under the 100 cm^3 beaker.

5. Add 3 g of pre-weighed potassium nitrate(V) to the water in the 100 cm^3 beaker. Start the stopwatch. Stir constantly in a 'figure of eight' motion, making sure to stir through the middle of the beaker.

6. Stop the stopwatch when all the potassium nitrate(V) has dissolved. This is when there is no visible solid in the beaker.

7. Record the time taken, in **seconds**, for the potassium nitrate(V) to dissolve.

8. Repeat steps 3–7 using water at approximately 50 °C, 40 °C, 30 °C and 20 °C. These temperatures can be achieved by adding hot or cold water to the 500 cm^3 beaker of hot water if necessary.

Teacher / Technician Notes

- 3 g pre-weighed masses of potassium nitrate(V) should be accurately weighed to ± 0.2 g.
- Candidates can be told the temperatures can be approximately 60 °C, 50 °C, 40 °C, 30 °C and 20 °C.
- Candidates can use any suitable hot water sources e.g. kettle / tap / thermostatically controlled water bath.
- Step 5 in the method refers to stirring constantly in a 'figure of eight' motion, making sure to stir through the middle of the beaker. This should be demonstrated to candidates to ensure the solid is continuously moved during the stirring process.
- The solution will not lose cloudiness completely, particularly at low temperatures but candidates should be told to aim for an almost completely clear solution.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **39** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

APPLIED SCIENCE (Double Award) – Unit 5
APPLIED SCIENCE (Single Award) – Unit 4

INVESTIGATING THE EFFECT OF TEMPERATURE ON THE CURRENT IN A THERMISTOR

Introduction

Your task is to investigate the effect of temperature on the current in a thermistor.

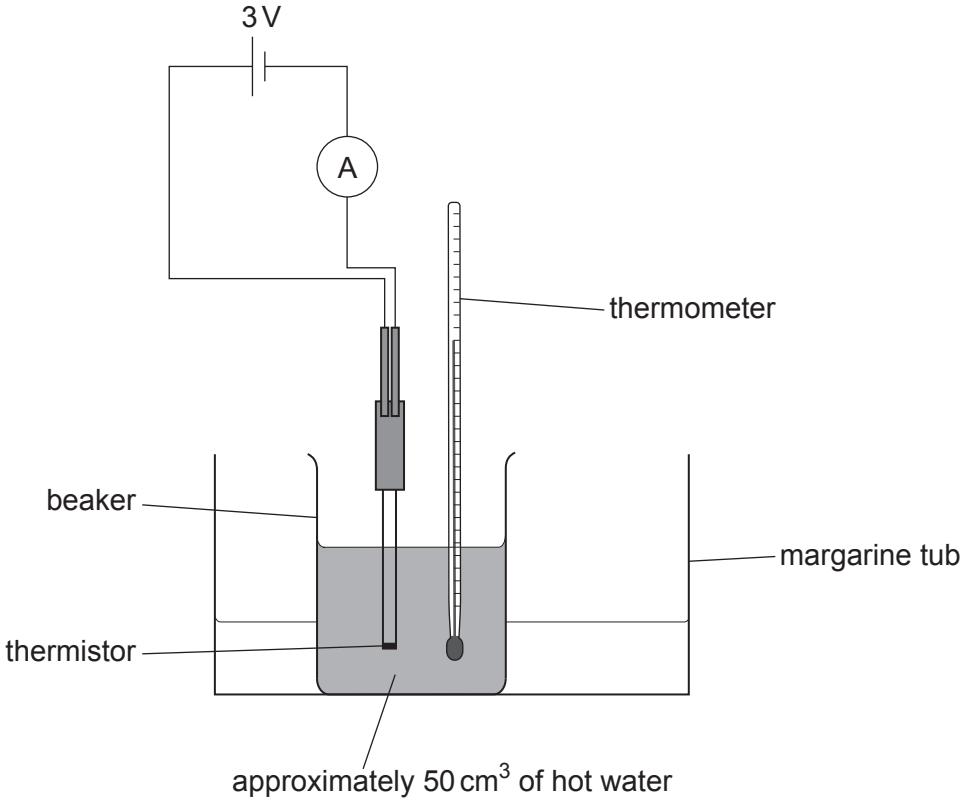
Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

1 × 3 V battery
1 × thermistor held in a clamp and stand
3 × 4 mm lead
1 × ammeter (± 0.1 mA)
1 × 100 cm^3 beaker
1 × thermometer (-10 °C – 110 °C)(± 1 °C)
1 × empty 500 g margarine tub
1 × stirring rod

Access to:
water at approximately 60 °C
ice

Diagram



Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Half fill a 100 cm^3 beaker with water at a temperature of approximately 60 °C. Place the beaker into the margarine tub.

2. Place the thermometer into the beaker.

3. Lower the clamped thermistor into the water so that the thermistor is fully submerged.

4. Stir the water in the beaker continuously with the stirring rod.

5. Use the ammeter to record the current in mA as the water in the beaker cools and the temperature reaches 50 °C, 45 °C and 40 °C.

6. Add three ice cubes and cold water to the **margarine tub** after the water in the beaker reaches 40 °C.

7. Record the current when the water temperature reaches 35 °C and 30 °C.

8. Repeat steps 1–7 to obtain a total of two sets of results.

Teacher / Technician Notes

- An ntc disc thermistor should be used and connected to a terminal block and two 4 mm stackable leads. This should be held in a clamp and stand. The ntc disc thermistor (approx R = 300 Ω at 25 °C and R = 24 Ω at 100 °C) is available from Rapid Education, Order code 61-0400.

- The complete electrical circuit must be set up prior to use for the candidates. If using a multimeter it should be on a mA setting.

- Use of batteries is the preferred method for the power supply. CLEAPSS is concerned about health and safety issues if a power pack is used.

- Thermometers must be accurate to the nearest °C only. If these are not available, the "**Information required from centres**" sheet on page **41** needs to reflect this and be given to the exams officer to be sent to the examiner with the completed examination papers.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **41** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

APPLIED SCIENCE (Single Award) – Unit 4

INVESTIGATING THE STRENGTH OF BONES

Introduction

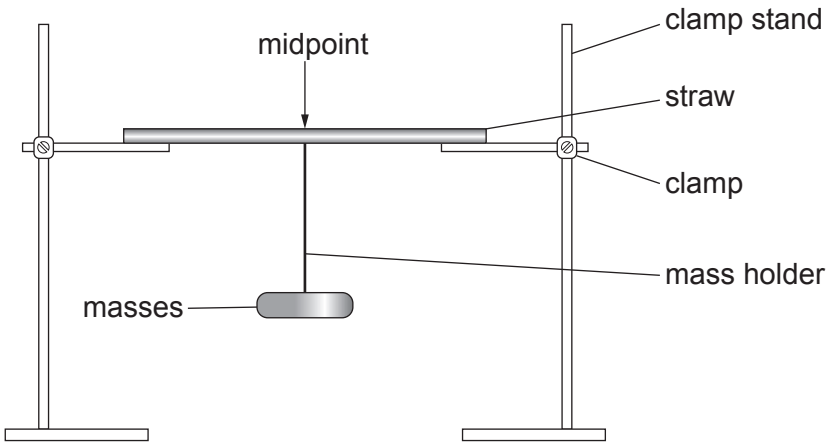
Your task is to investigate how the length of a bone affects its strength.

Apparatus Required

The following apparatus is required for each group: (each group should consist of no more than three candidates).

2 × clamp and stand
12 × paper straw each of 35 cm length
10 × 100 g mass
1 × 100 g mass holder
1 × 30 cm ruler (± 1 mm)
1 × pencil
1 × scissors

Diagram



Read the method and answer questions 1.(a) and 1.(b) before carrying out the experiment and recording your results.

Method

1. Set up the clamp stands as shown in the diagram.

2. Take a 35 cm straw and use a ruler to find the midpoint. Mark this in pencil.

3. Place the straw so each end sits on top of a clamp. The straw represents a bone.

4. Hang a 100 g mass holder on the midpoint of the straw.

5. Keep adding 100 g masses to the mass holder until the straw bends. This represents the bone breaking.

6. Record the mass at which the straw bends.

7. Repeat steps 2–6 two more times to get a total of three results. Use a new straw each time.

8. Repeat steps 2–7 for straws with a length of 30 cm, 25 cm, 20 cm, 15 cm and 10 cm. Cut 35 cm straws to make these lengths. Move the clamps closer together each time to ensure the length of straw resting on the clamp remains the same.

Teacher / Technician Notes

- In trials 6 mm diameter art straws worked well.
  Art straws can be purchased from Hope Education
  Jumbo Art straws – White
  Product code: HE215923 (6 mm diameter)
  HE215923 – Jumbo Artstraws – White | Hope Education (hope-education.co.uk)

  Any paper straws can be used as an alternative, as long as they are up to 35 cm and all of the same diameter.

- Make sure the clamp is the same height approximately midway up each stand.

The remainder of the examination paper is not required for the purpose of checking the setting up of the task.

In order that the work of each candidate may be correctly assessed, information is required about the materials used in the task. Please ensure that the **"Information required from centres"** sheet on page **43** is completed and given to the exams officer to be sent to the examiner with the completed examination papers. This should include any amendments to the equipment specified.

GCSE

BIOLOGY – Unit 3
PRACTICAL ASSESSMENT

INVESTIGATING THE EFFECT OF SUBSTRATE CONCENTRATION ON THE RATE OF ENZYME ACTION

INFORMATION REQUIRED FROM CENTRES

Centre Number .....

(Please detach and send with the completed examination papers to the **examiner**.)

Please note below any issues which should be brought to the examiner's attention.

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GCSE

CHEMISTRY – Unit 3
PRACTICAL ASSESSMENT

INVESTIGATING THE RATE OF THE REACTION BETWEEN CALCIUM CARBONATE AND HYDROCHLORIC ACID

INFORMATION REQUIRED FROM CENTRES

Centre Number .....

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GCSE

PHYSICS – Unit 3
PRACTICAL ASSESSMENT

INVESTIGATING THE RESISTANCE OF A LIGHT DEPENDENT RESISTOR

INFORMATION REQUIRED FROM CENTRES

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GCSE

BIOLOGY – Unit 3
SCIENCE (Double Award) – Unit 7
APPLIED SCIENCE (Double Award) – Unit 5
PRACTICAL ASSESSMENT

INVESTIGATING THE EFFECT OF GLUCOSE CONCENTRATION WHEN TESTING FOR DIABETES

INFORMATION REQUIRED FROM CENTRES

Centre Number .....

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GCSE

CHEMISTRY – Unit 3
SCIENCE (Double Award) – Unit 7
PRACTICAL ASSESSMENT

INVESTIGATING THE ELECTROLYSIS OF COPPER(II) SULFATE

INFORMATION REQUIRED FROM CENTRES

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GCSE

PHYSICS – Unit 3
SCIENCE (Double Award) – Unit 7
PRACTICAL ASSESSMENT

INVESTIGATING THE EFFECT OF DROP HEIGHT ON THE SIZE OF AN IMPACT CRATER

INFORMATION REQUIRED FROM CENTRES

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GCSE

APPLIED SCIENCE (Double Award) – Unit 5
PRACTICAL ASSESSMENT

INVESTIGATING THE RATE OF DISSOLVING OF POTASSIUM NITRATE

INFORMATION REQUIRED FROM CENTRES

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GCSE

APPLIED SCIENCE (Double Award) – Unit 5
APPLIED SCIENCE (Single Award) – Unit 4
PRACTICAL ASSESSMENT

INVESTIGATING THE EFFECT OF TEMPERATURE ON THE CURRENT IN A THERMISTOR

INFORMATION REQUIRED FROM CENTRES

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GCSE

APPLIED SCIENCE (Single Award) – Unit 4
PRACTICAL ASSESSMENT

INVESTIGATING THE STRENGTH OF BONES

INFORMATION REQUIRED FROM CENTRES

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