

Candidate Name	Centre Number	Candidate Number
		4



Entry Level

722/01

SCIENCE (Double Award)

A.M. THURSDAY, 6 March 2008

1½ hours

Examiner's Use Only

Total Marks	
------------------------	--

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

If you have difficulty in reading a question, put up your hand and the teacher-in-charge will read it to you.

INFORMATION FOR CANDIDATES

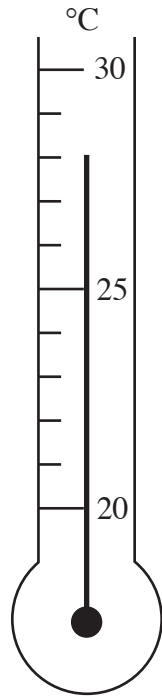
The number of marks is given in brackets at the end of each question or part-question.

BLANK PAGE

Answer **all** questions.

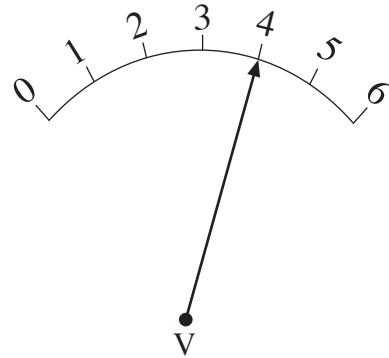
1. Look at the drawings of the apparatus shown below. On the correct line under each drawing, write in the reading shown on the apparatus. [4]

Thermometer



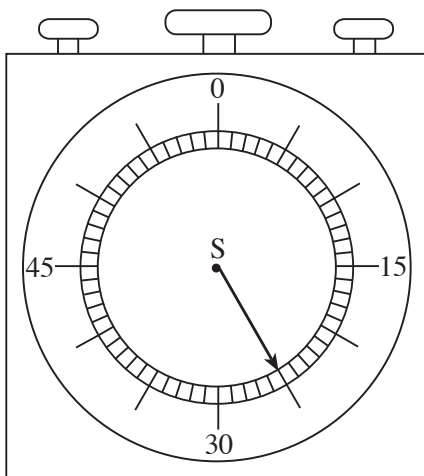
..... °C

Voltmeter



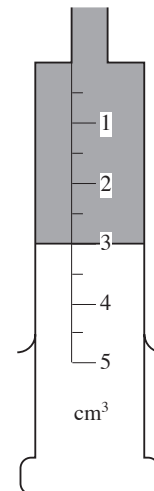
..... V

Stop clock



..... s

Syringe

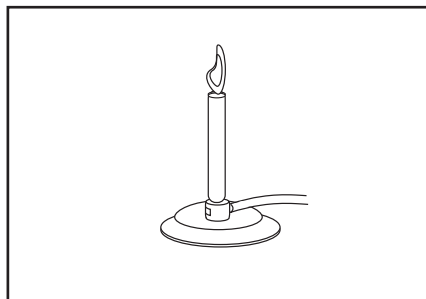


..... cm³



2. (a) Match the drawings of the apparatus to the correct label using a line. One has been completed for you. [4]

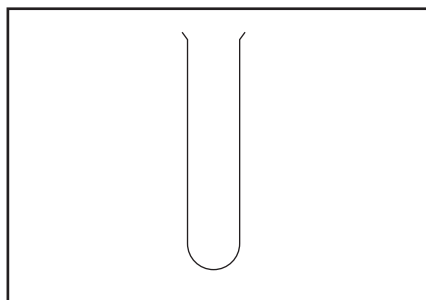
Tripod



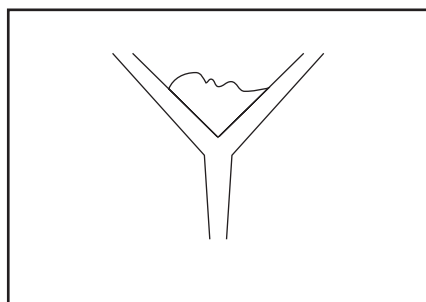
Bunsen burner



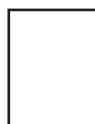
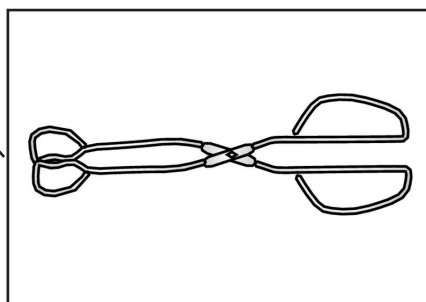
Test tube



Tongs



Filter funnel



(b) Use the words in the box to answer the questions below.

temperature
heat energy
thermometer
degrees celsius °C

(i) This is used to measure temperature. [1]

.....

(ii) This is the unit used to measure temperature. [1]

.....

(iii) This describes how hot something is. [1]

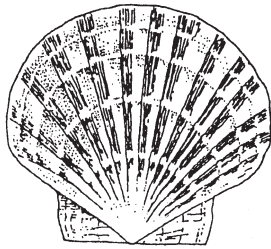
.....

(iv) This escapes from something when it is hotter than its surroundings. [1]

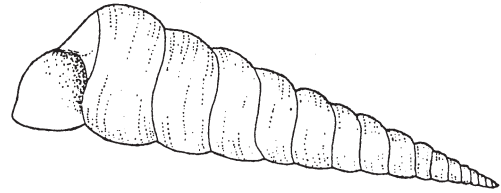
.....



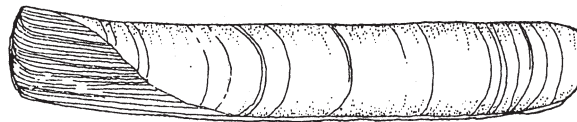
3. The drawings below show **three (3)** different shells.



A



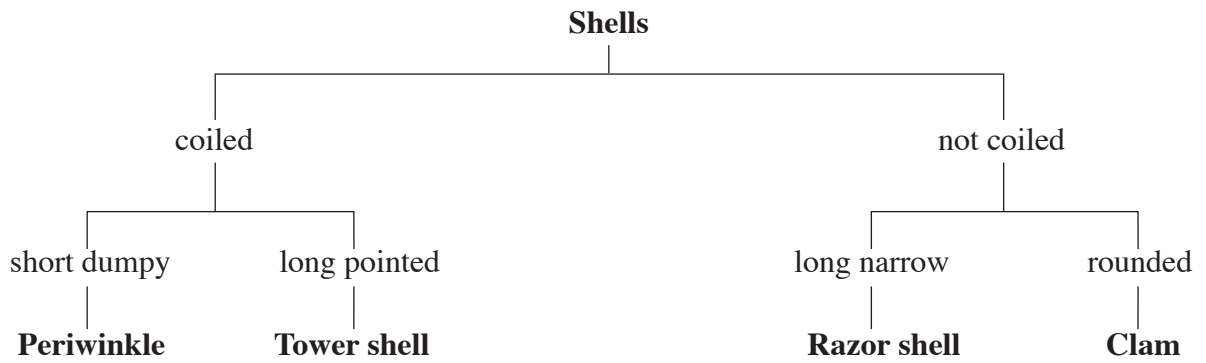
B



C

Use the chart below to name the **three (3)** shells.

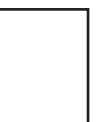
[3]



Shell A is a

Shell B is a

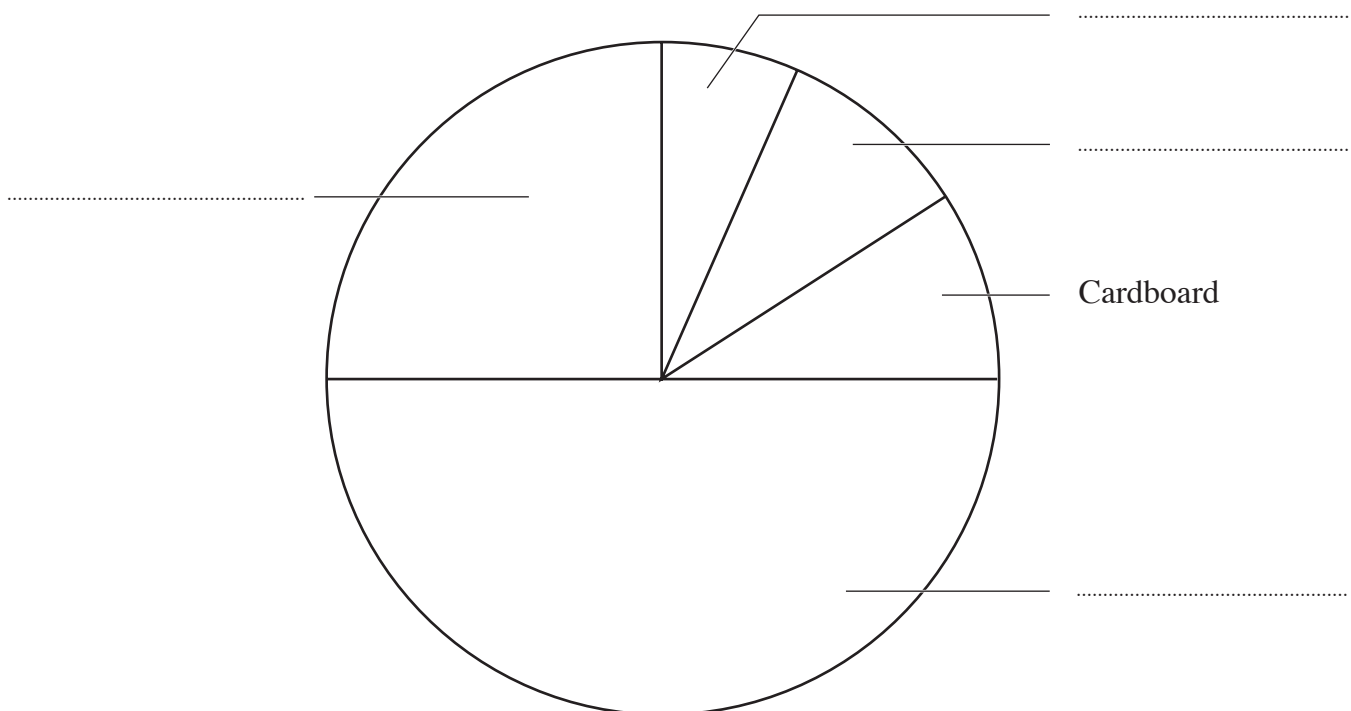
Shell C is a



4. Pupils in a school wanted to find out the different types of waste the school was producing. The results are shown in the table below.

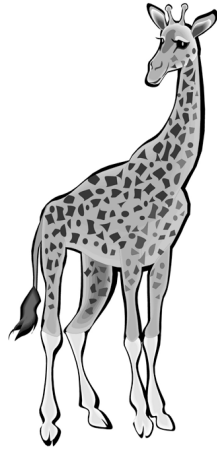
Type of waste	Percentage produced
Paper	25%
Cardboard	10%
Plastic	10%
Glass	5%
Food waste	50%

Plot this information on the pie chart shown below. One has been completed for you. [4]

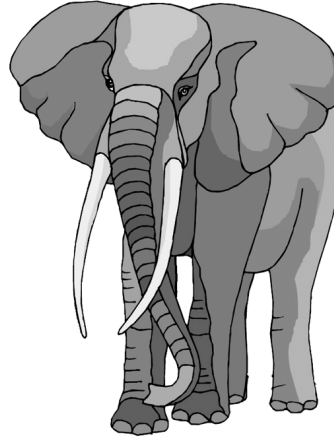


5. Look carefully at the drawings of the animals below.

Giraffe



Elephant



Complete the table with a **cross (X)** in the box for the features that apply to each animal.

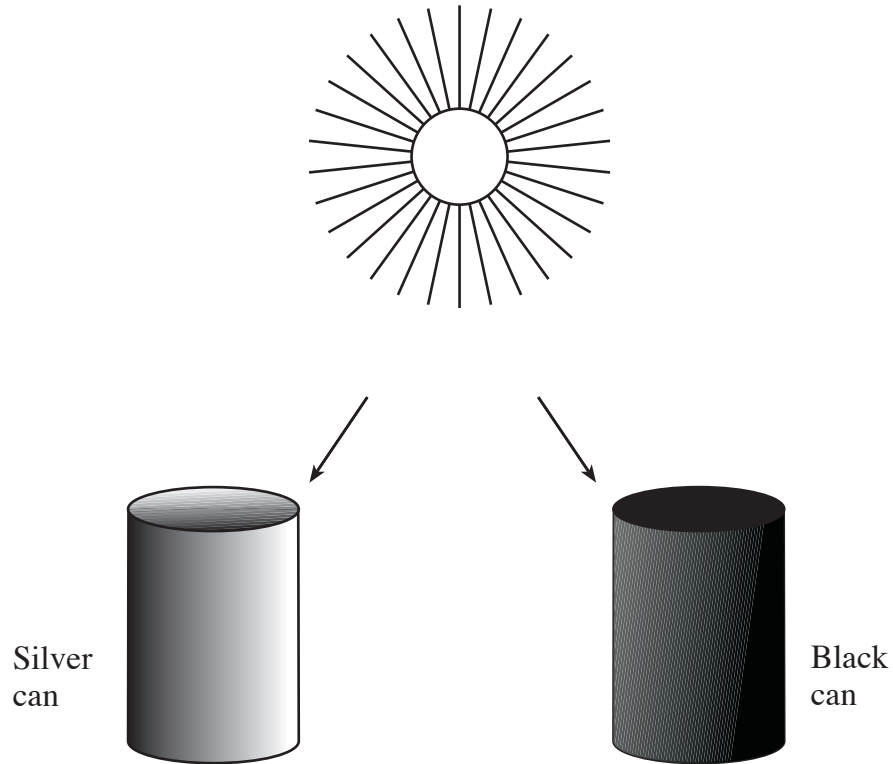
Some have been completed for you.

[6]

Feature	Giraffe	Elephant
Big ears		X
Trunk		
Thin legs		
Thick legs		
Long neck		
Long tail		
Tusks on head		
Big body		X



6. John and Andrea were finding out which metal can, black or silver, heated up most in the sunlight. They set up an experiment with two identical metal cans, one painted black, as shown below.



Water was put in the cans. The cans were then left on the same desk, in the sunlight, for the same time and the water temperatures were taken at the same times.

- (a) What **three (3)** things must they keep the same in order to make the investigation a fair test? [3]

.....

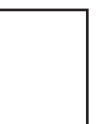
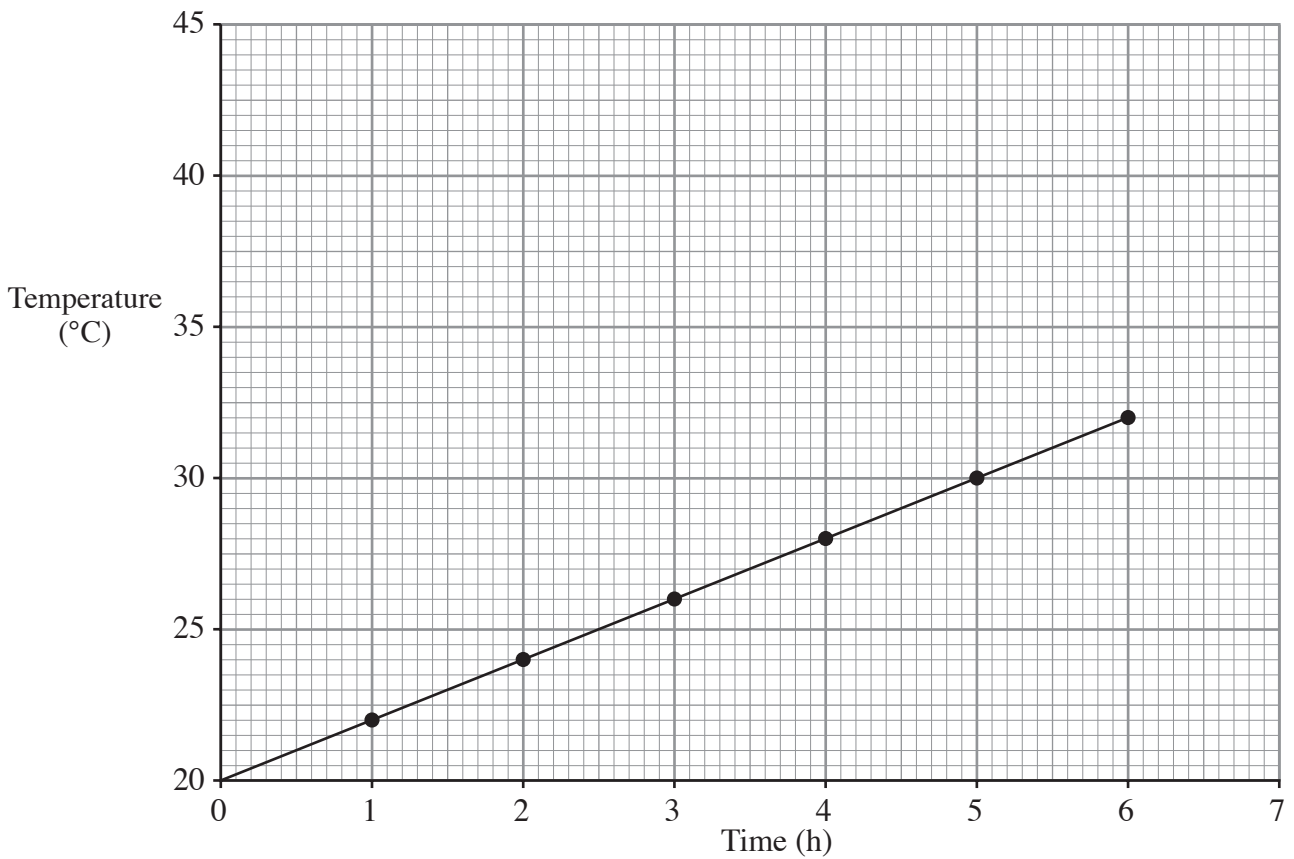
.....

.....



(b) The results of the investigation are shown in the table below. Plot the results for the black can on the graph paper. Remember to join the points with a line. The graph for the silver can has been drawn for you. [6]

	Time in hours						
Can type	Start	1	2	3	4	5	6
Silver can	20°C	22°C	24°C	26°C	28°C	30°C	32°C
Black can	20°C	24°C	28°C	32°C	36°C	38°C	39°C



(c) What was the temperature of the black can at 4.5 hours? [1]

.....

(d) Estimate the temperature of the silver can at 7 hours. [1]

.....

(e) By how much did the temperature of the silver can go up in 5 hours? [1]

.....

(f) Which can gained the most heat, the black can or the silver can? [1]

.....

(g) What would be the hottest that the water in the cans will go up, and why? [2]

.....

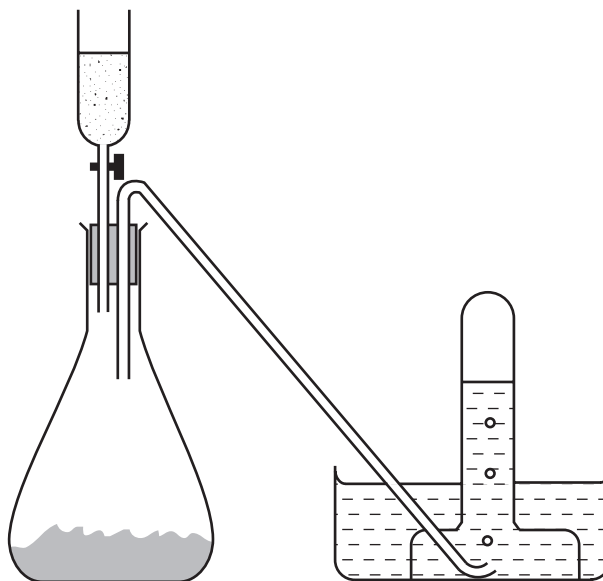
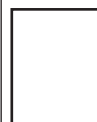
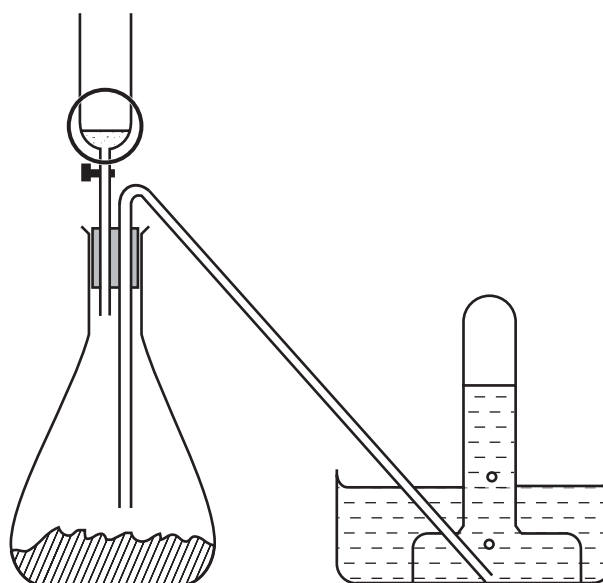
.....



7. Look carefully at the two drawings of apparatus set up for an experiment.

There are **six (6)** differences between Drawing A and Drawing B. One of these has been circled for you on Diagram B. Draw a neat circle around the other **five (5)** differences on Drawing B.

[5]

DRAWING A**DRAWING B**

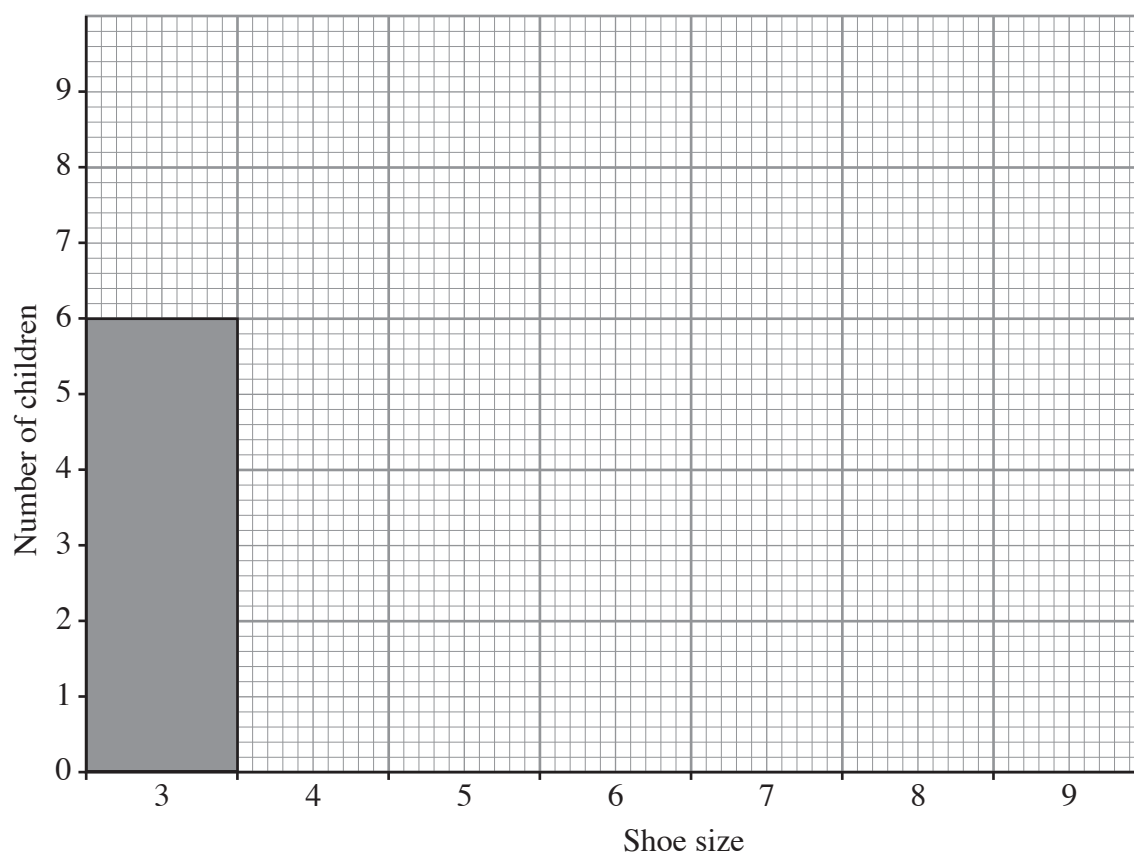
BLANK PAGE

8. The pupils in a class were investigating the differences in their shoe sizes. The results are shown in the table below:

Shoe size	3	4	5	6	7	8	9
Number of children	6	4	6	7	5	3	2

- (a) Plot these results on the graph paper below. The first one has been done for you.

[6]



(b) How many children wore size 9 shoes? [1]

.....

(c) Which shoe size was the most common in this class? [1]

.....

(d) Which **two (2)** shoe sizes were worn by the same number of children? [2]

..... and

(e) Which shoe size was the least common? [1]

.....



9. Look carefully at the drawing of a science lesson. The children are not carrying out their experiment in a safe manner.

Neatly circle **five (5)** things they are doing which are not safe.

[5]



10. Look carefully at the list of apparatus below and decide which is **the best** to use during an experiment. One has been completed for you. [6]

Apparatus:

Bunsen burner	Tongs	Metre rule	Goggles
Ruler	Stop clock	Ammeter	Syringe
Thermometer	Spatula	Test tube	Beaker

Use in experiment	Best apparatus
Protecting the eyes	Goggles
Measuring the length of the hall	
Timing an experiment	
Taking the temperature	
Measuring 1cm ³ of water	
Adding a little powder to a test tube	



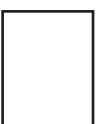
11. Your local shop is selling Sparkle, a new washing powder.

On the television they claim it is much better than the one you usually buy.

Explain how you would carry out a fair test to see which one is the best.

You may write or draw what you would do in the space below.

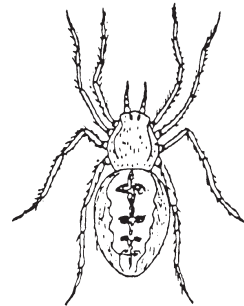
[3]



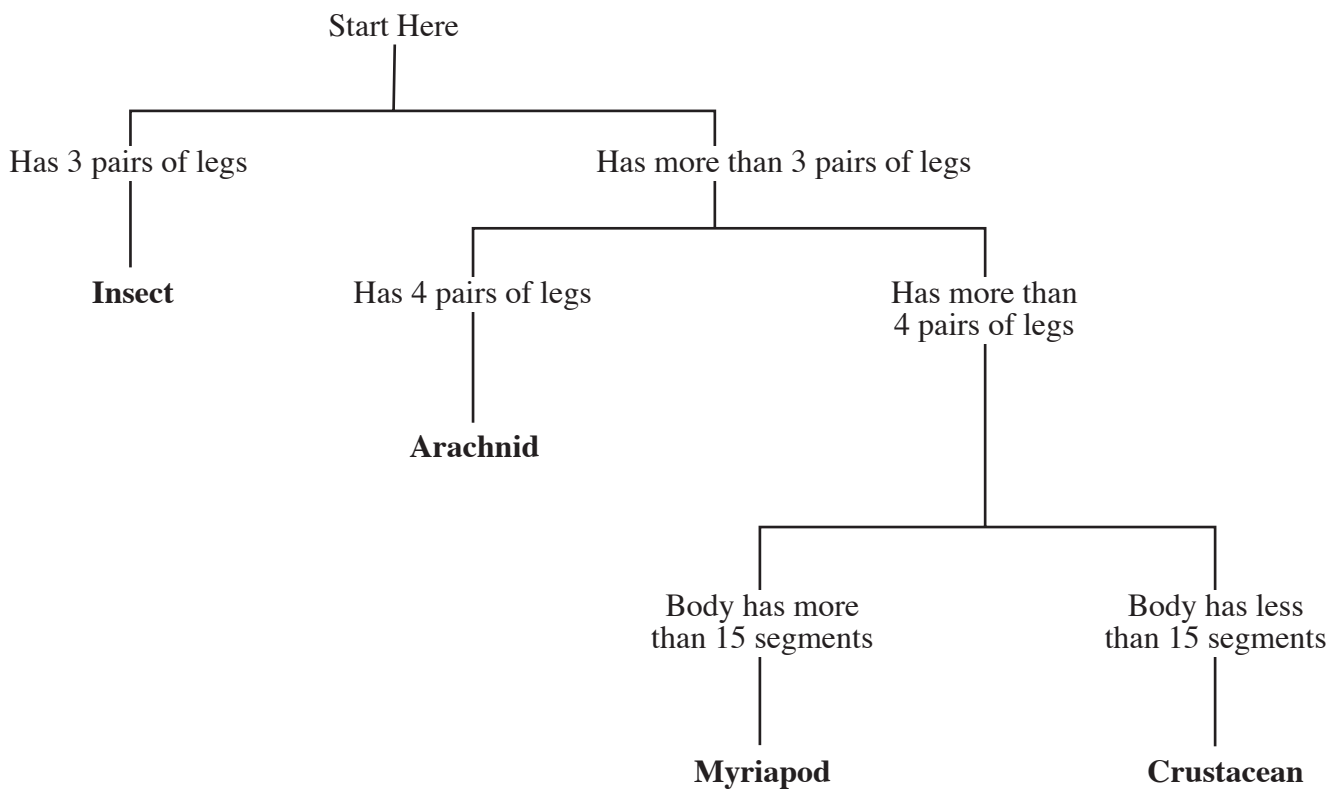
12. Below are drawings of **two (2)** animals. Use the chart to find out which groups the animals belong to. [2]



Animal A

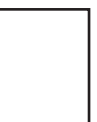


Animal B



Animal A belongs to the group called

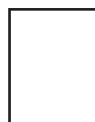
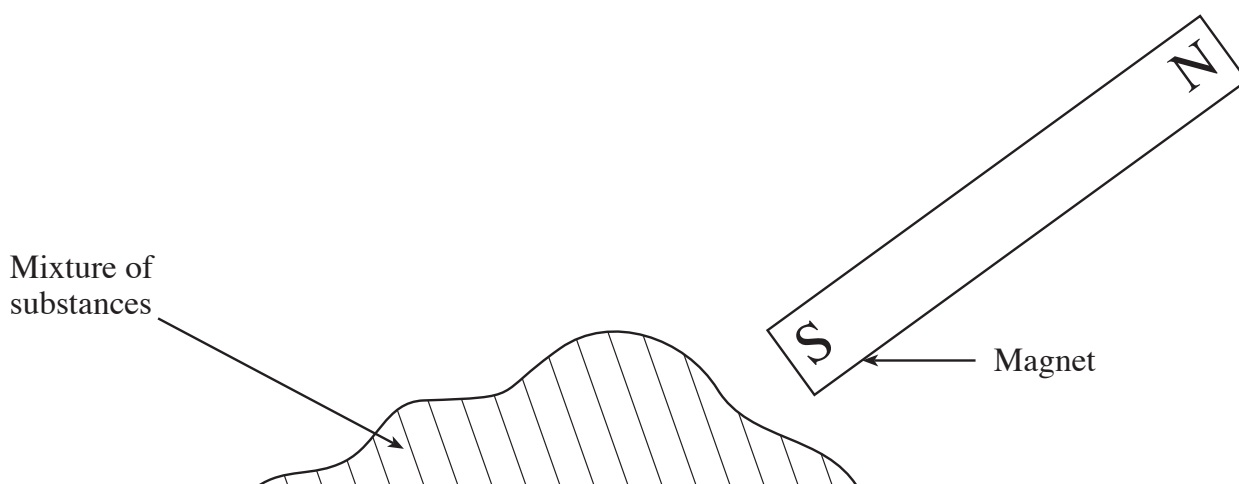
Animal B belongs to the group called



13. Some substances had been accidentally mixed together. They need to be separated. The three substances are salt, crushed glass and iron filings. The table below gives you some important information about the chemicals.

Chemical	Reaction with water	Reaction with magnet
Crushed glass	No reaction	No reaction
Salt	Dissolved	No reaction
Iron filings	No reaction	Attracted

In order to separate the mixture into three separate piles, the class used a magnet. The mixture was placed on a piece of paper. A magnet was brought near to the mixture.



(a) Which substance(s) would stick to the magnet? [1]

(b) Why would this happen? [1]

.....

.....

(c) The rest of the mixture is placed in a clean beaker. Why is it important to use a clean beaker? [1]

.....

.....

(d) Some warm water was added and the mixture was stirred until no more would dissolve.

(i) Why is it better to use warm water in this experiment? [1]

.....

.....

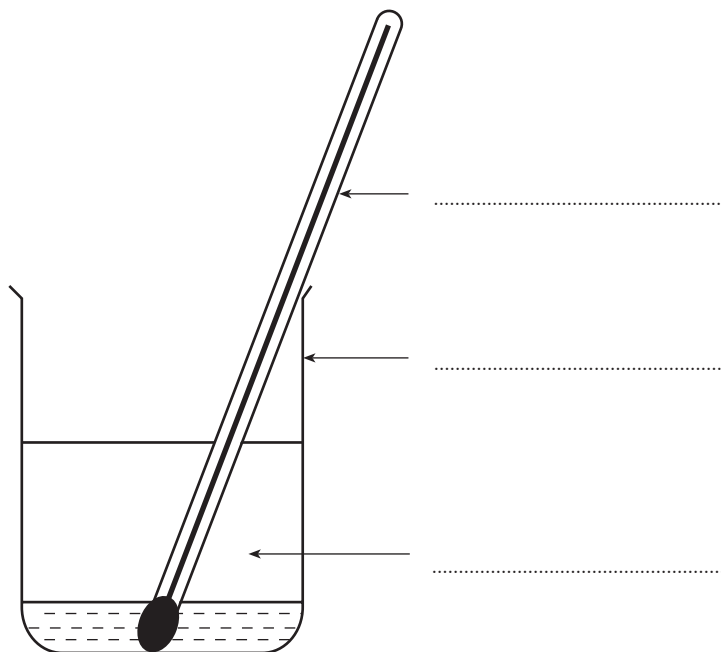
(ii) Why is it better to stir the mixture? [1]

.....

.....



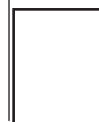
The beaker looked like the drawing below.



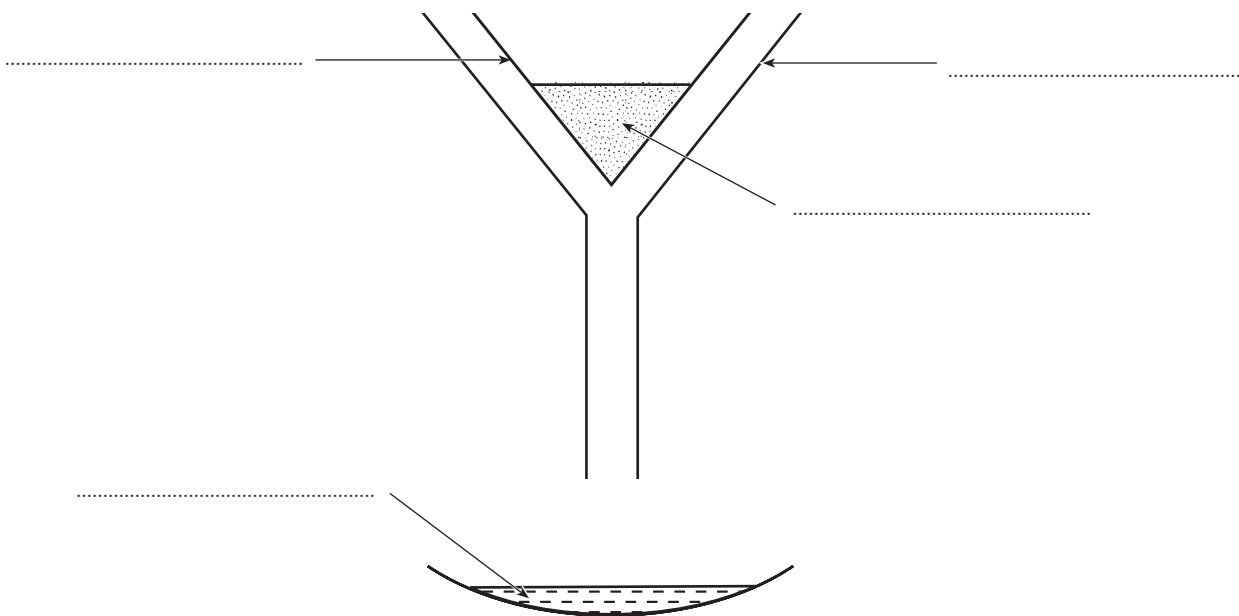
(e) Label the **beaker, glass rod, and solution** on the drawing above. [3]

(f) Which substance would be left in the bottom of the beaker? [1]

(g) Why was this substance left in the bottom of the beaker? [1]



Everything in the beaker was poured through a filter. The solution was collected in a glass evaporating dish. The apparatus used is shown in the drawing below.



(h) Label the **filter funnel, substance, filter paper and solution** on the drawing above. [4]

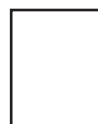
(i) Which substance is left in the filter paper? [1]

(j) The solution in the dish contained one substance that had dissolved.
What would you do to change it back into a dry substance? [1]

(k) Name **four (4)** pieces of apparatus you would need in order to dry out the substance. [4]

.....

.....



14. Diane and Lesley put small pieces of magnesium ribbon, the same size, into beakers containing the same amount of different strength acids. They timed how long it would take for the magnesium to dissolve. The results are shown below:

Strength of acid	Time to dissolve [seconds]
Very weak	200
Weak	120
Strong	70
Very strong	35

- (a) What **two (2)** things was the experiment trying to find out? [2]

.....

.....

- (b) What did the results of the experiment show? [1]

.....

- (c) Why did they use Magnesium pieces that were the same size? [1]

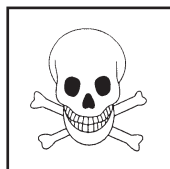
.....



15. The following hazard symbols are found on some chemicals in the laboratory.



Oxidizing

A

Toxic

BHighly
flammable**C**

Radioactive

D

Irritant

E

Corrosive

F

(a) Complete the table below to show which warnings would appear for each of the chemicals. The first one has been completed for you. [4]

Chemical	Hazard	Letters
Bleaching powder	Oxidising Corrosive	A F
Crude oil	C E
Carbon monoxide	Toxic Highly flammable

