

5 New materials

Complete the following:

- a Draw lines to match each action to the new material formed.

mixing bicarbonate of soda and vinegar

mixing water, sand, stones and cement

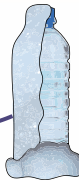
burning paper



concrete



ash



bubbles and foam

(All 3 must be correct for 1 mark.)

1

1 mark

- b Are the changes in a reversible?no.....

1

1 mark

- c What is the name of the gas produced when you mix bicarbonate of soda and vinegar?
Circle your answer.

oxygen

hydrogen

carbon dioxide

1

1 mark

- d A mixture made up of sand and water is poured through some filter paper. What will happen? Circle your answer.

Sand and water will filter through the paper.

Sand will remain in the paper and water will filter through it.

1

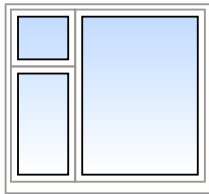
1 mark

Sand and water will remain in the paper.

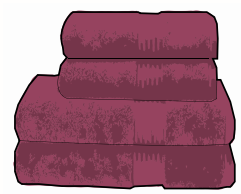
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4

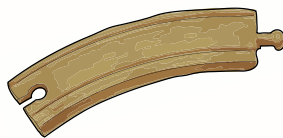
6 Everyday objects



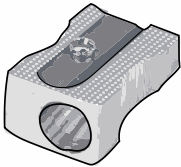
window pane
(glass)



towel
(cotton)



toy car
track
(plastic)



pencil
sharpener
(steel)

Complete the following:

- a Write the objects pictured above in the correct place in the table below. One has been done for you.

property of material	object
flexible	toy car track
transparent	window pane
attracted by a magnet	pencil sharpener
absorbent	towel

(2 marks for all 3 correct, 1 mark for 2 correct.)

- b Write down **one** more everyday object which is attracted by a magnet.

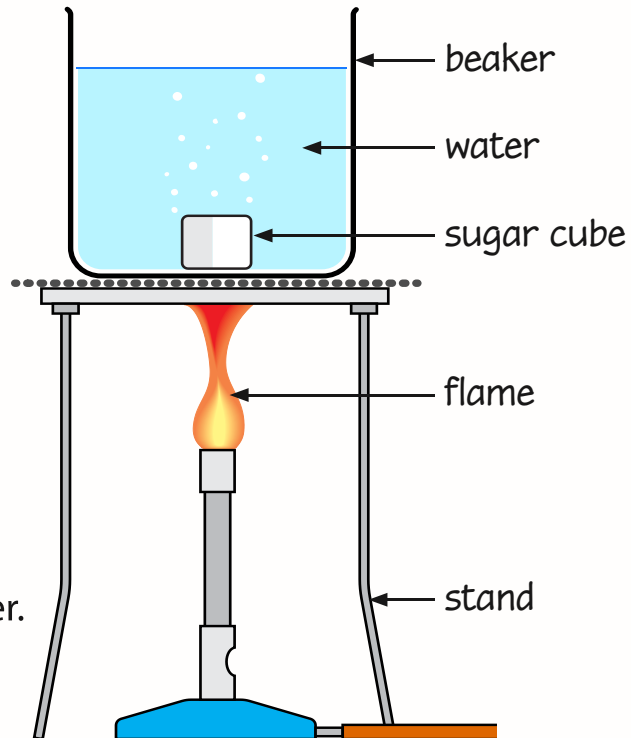
e.g. nail (Accept other appropriate answers.)
.....

2
2 marks

1
1 mark

Page Total 3

7 Dissolving and evaporation



A cube of sugar is dissolved in water. The water is then heated until only the sugar is left behind.

solution

evaporation

solute

Choose words from the box above to complete the sentences below:

- a The sugar in the example above is the *solute*
- b The liquid with the dissolved sugar is a *solution*
- c The process of heating the liquid to leave the solid sugar behind is called *evaporation*

(2 marks for all 3 correct, 1 mark for 2 correct.)

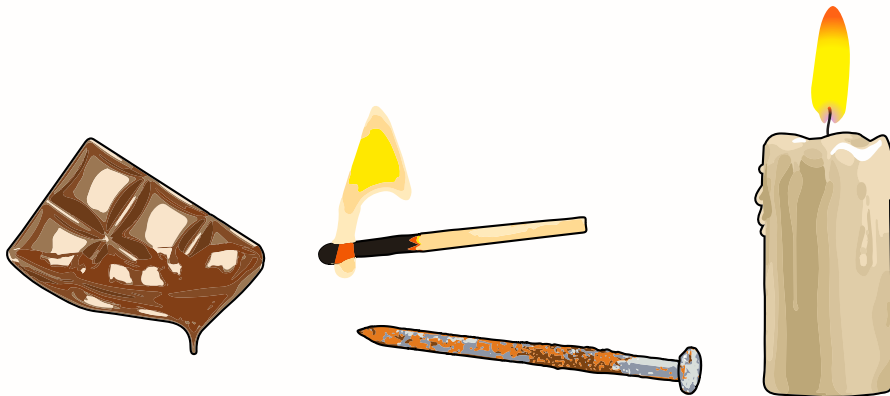
2

2 marks

Page Total

2

8 Reversible and irreversible changes



Are the following changes **reversible** or **irreversible**?
One has been done for you:

- a A piece of chocolate melts when it is heated. **reversible**
- b A car wheel rusts when it is left in the rain. **irreversible**
- c Candle wax becomes liquid when it melts. **reversible**
- d A sheet of paper is set alight with a match. **irreversible**
- (2 marks for all 3 correct, 1 mark for 2 correct.)

2
2 marks

Complete the following:

- e Explain why chocolate melting is a **reversible** change.
Answer should suggest that when chocolate cools, it
returns to a solid state.
- f Explain why wood burning on a fire is an **irreversible** change.
Answer should suggest that burnt wood (ash) cannot
return to its original state.

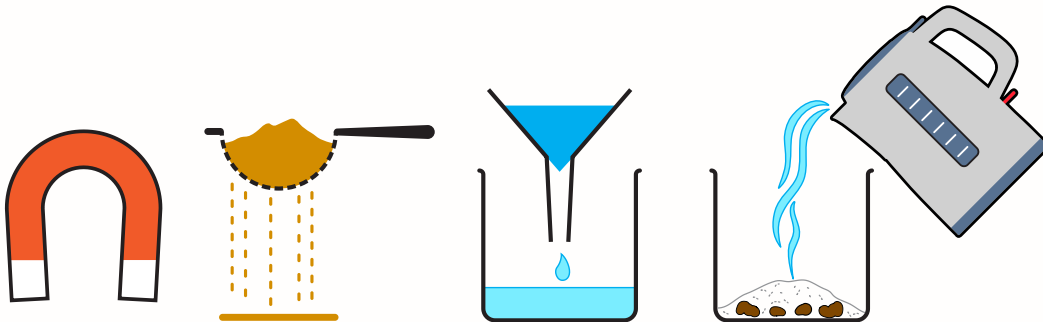
1
1 mark

1
1 mark

Page Total

4

9 Separating substances



Complete the following:

- a Which of the following can be separated using magnetism?
Tick **one** box.

flour from raisins

☐

sand from water

☐

coffee granules from peppercorns

☐

iron filings from sugar

☒

1

1 mark

- b Explain how your answer to a would work.

Answer should suggest that the iron filings would be
attracted to the magnet.

1

1 mark

- c Sugar cannot be separated from coffee granules using a dissolving method. Explain why not.

Answer should suggest that sugar and coffee will both
dissolve.

1

1 mark

- d Circle the best thing to use to separate raisins and flour.

a magnet

a sieve

filter paper

1

1 mark

Page Total

4

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30 /30