

# SMART-EXAM-RESOURCES

## for CAMBRIDGE LOWER SECONDARY CHECKPOINT PRACTISE QUESTIONS AND MARK SCHEMES

### Stage 7 Subject: Chemistry

## Topic : Physical Properties of Matter-Set-1

1 Fig. 3.1 shows a metal plate-warmer.

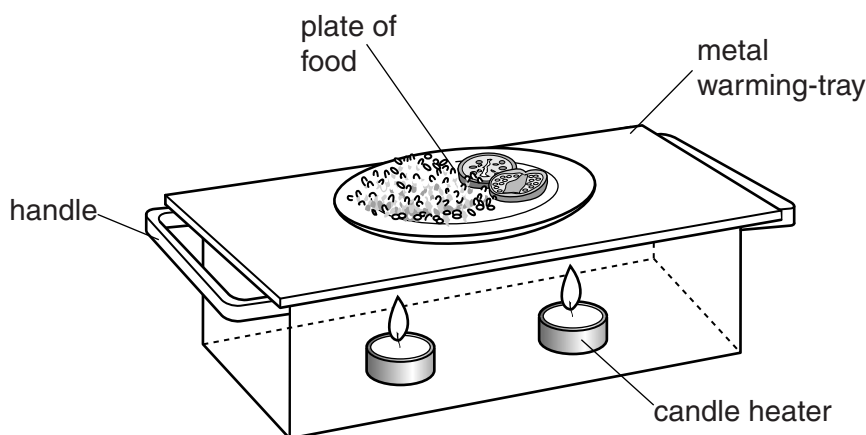


Fig. 3.1

The plate-warmer contains two small candle heaters. Plates of food are placed on top of the warming-tray

The handles of the plate-warmer are made from metal.

Identify a problem with this, and suggest how the problem could be solved.

problem: .....

action: .....

[2]

## **MARKING SCHEME:**

**(handles) become hot B1**

**use an insulator B1**

**Expert Solution:**

**Advice:**

- You need not worry about the mark 'B1'. Just keep in mind it indicates one mark for what's written against it. In bracket means it is in the context of that word.**

2 Researchers have found that the best temperature for drinking coffee is 60°C.

A designer has developed a new type of cup for keeping coffee at 60°C. The cup is shown in Fig. 8.1.

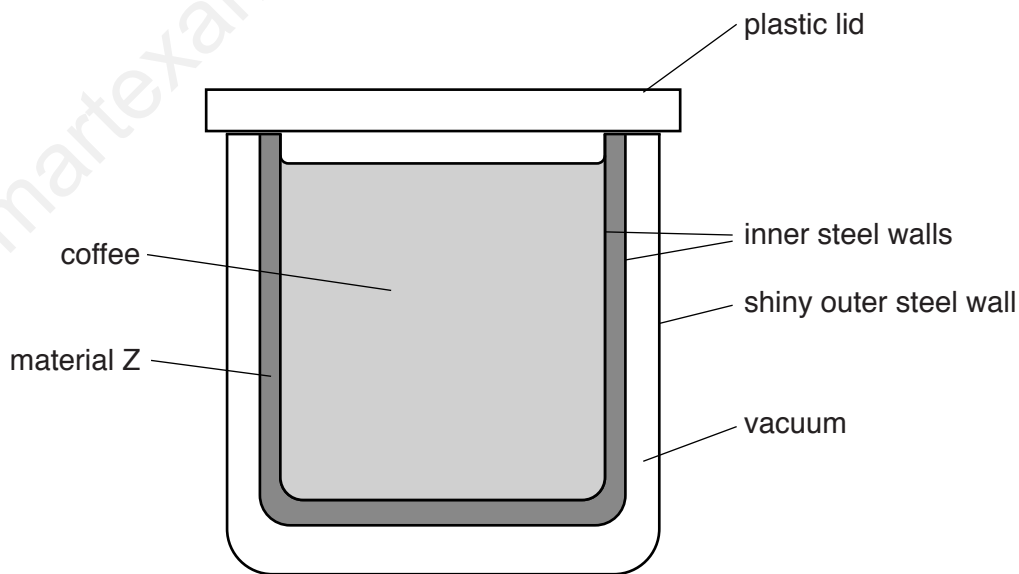


Fig. 8.1

Material Z has a melting point of 60°C. At room temperature, material Z is solid.

Coffee, at a temperature of 90°C, is poured into the cup. The coffee cools rapidly to 60°C

Explain how the following feature of the cup enable the coffee to be kept at 60°C for a long time.

plastic lid .....

.....

.....

**MARK SCHEME:**

any five from:

(plastic lid) is a good insulator

(plastic lid) reduces heat loss by convection

**Note:**

- You will learn about methods of heat loss in the higher years of 'Cambridge Lower Secondary Programme'. Have not deleted this part deliberately. During your school assessment, your teacher will not assess you on the part that has not been taught yet.

3 (a) Dutch metal is an alloy of copper and zinc that has been formed into very thin sheets.

When a small piece of Dutch metal is dropped into a container filled with chlorine, it bursts into flame and two compounds are produced as shown in Fig. 3.1.

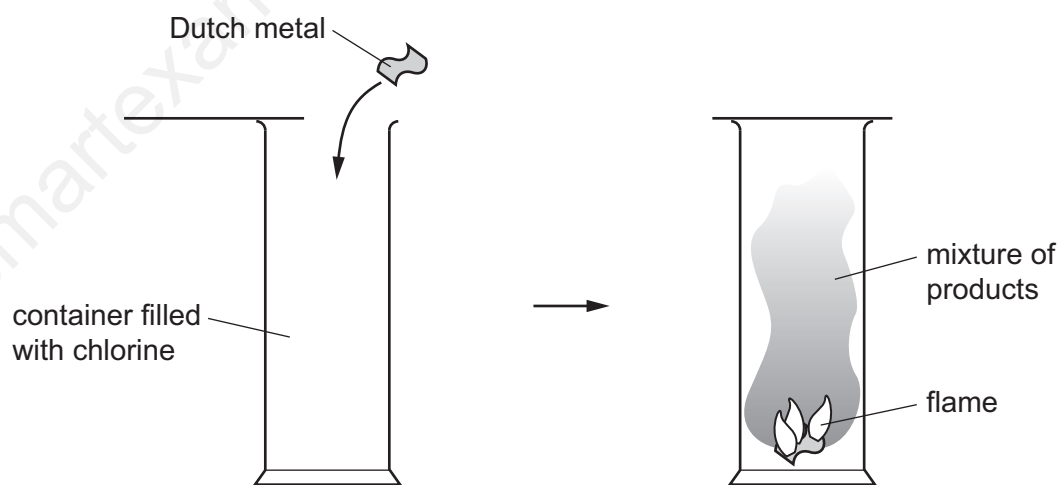


Fig. 3.1

State the physical property of metals that allows them to be formed into very thin sheets.

..... [1]

**MARK SCHEME:**

**malleability ; [1]**

www.smartexamresources.com

**4**

State **one** physical property, other than colour, that will be different in brass and copper.

.....[1]

**MARK SCHEME:**

**strength / malleability / conductivity / ductility / sonority / density / etc. ; [1 ]**

**5**

Suggest two differences in the physical properties of steel and iron.

1 .....

2 .....

[2]

**MARK SCHEME:**

**hardness ;**

**malleability ;**

**ductility ;**

**melting / boiling, point ;**

**max 2**