

Candidate Name	Centre Number	Candidate Number

WELSH JOINT EDUCATION COMMITTEE



CYD-BWYLLGOR ADDYSG CYMRU

ENTRY LEVEL CERTIFICATE

TYSTYSGRIF LEFEL MYNEDIAD

725/04

**Entry Level Certificate**

**GRAPHICAL AND MATERIAL STUDIES**

**(Plastics)**

P.M. THURSDAY, 15 March 2007

(½ Hour)

**Examiner only**

<b>Total Marks</b>	
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**INSTRUCTIONS TO CANDIDATES**

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

Answer **all** questions.

Underline **or** circle the correct answer **or** sketch **or** write in the spaces provided in this booklet.

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**

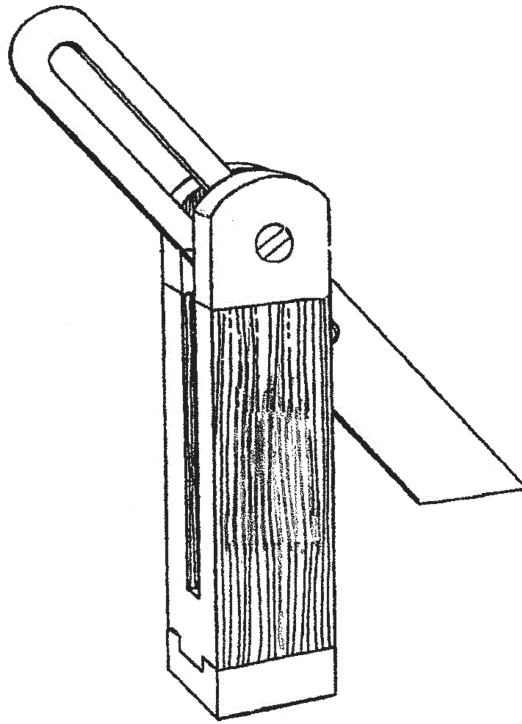
**Each** question carries **five** marks.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

Answer **all** questions.

Underline **or** circle *the correct answer or* sketch **or** write *in the spaces provided*.

1. The tool shown below is used in the Design and Technology room.



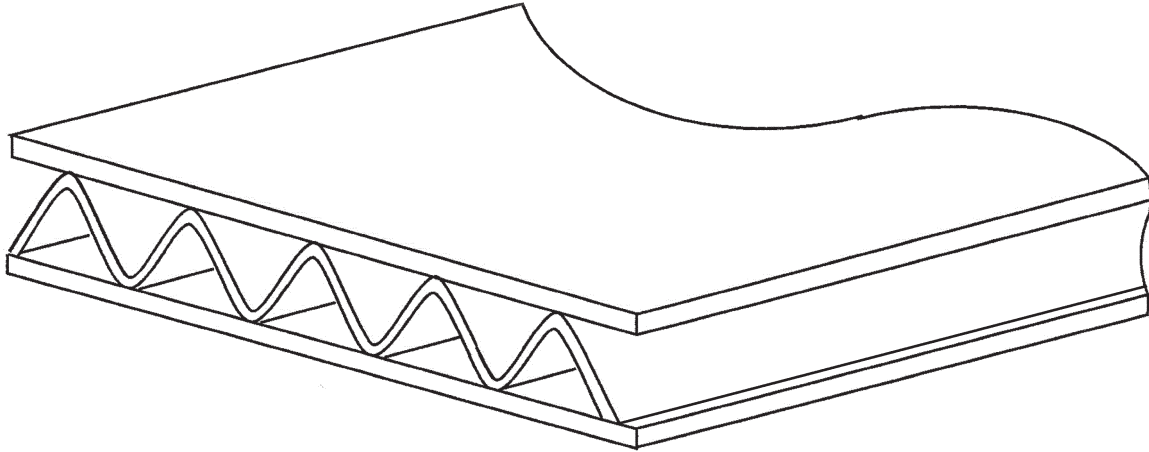
The tool shown is **one** (1) of the following:

- (a) Angle finder;
- (b) Sliding bevel;
- (c) Try square;
- (d) Mitre square.

**Underline** the correct answer.

[5]

2. The sketch below shows a piece of light, fairly strong plastic material.



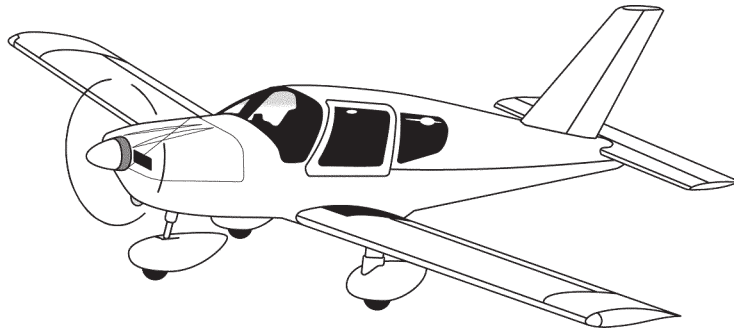
The material shown above is **one** (1) of the following:

- (a) Polystyrene;
- (b) Corrugated polypropylene sheet;
- (c) Acrylic;
- (d) ABS.

**Underline** the correct answer.

[5]

3. The sketch below shows an aeroplane made from a plastic kit.



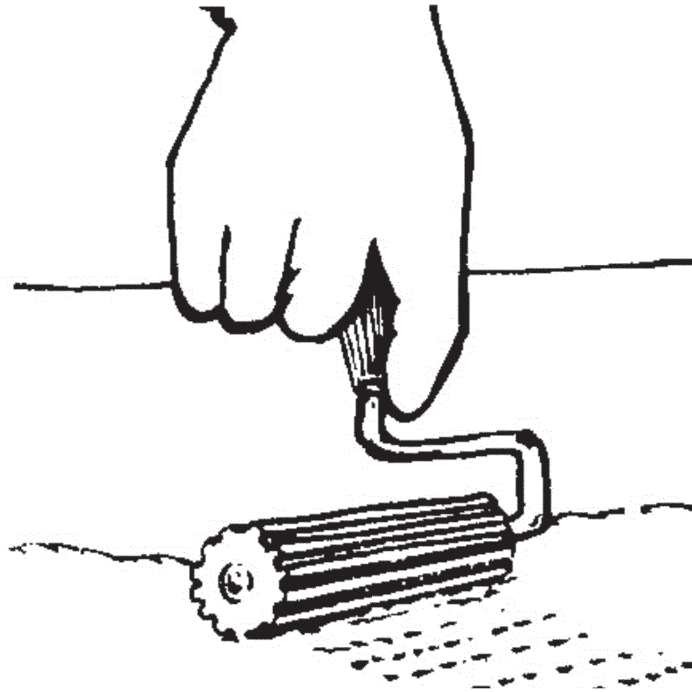
The pieces in the kit have been joined together with **one** (1) of the following:

- (a) PVA;
- (b) Polystyrene adhesive;
- (c) Pritt stick;
- (d) Solder.

**Underline** the correct answer.

[5]

4. The tool shown below is used when you are adding layers of Glass Reinforced Plastic (GRP).



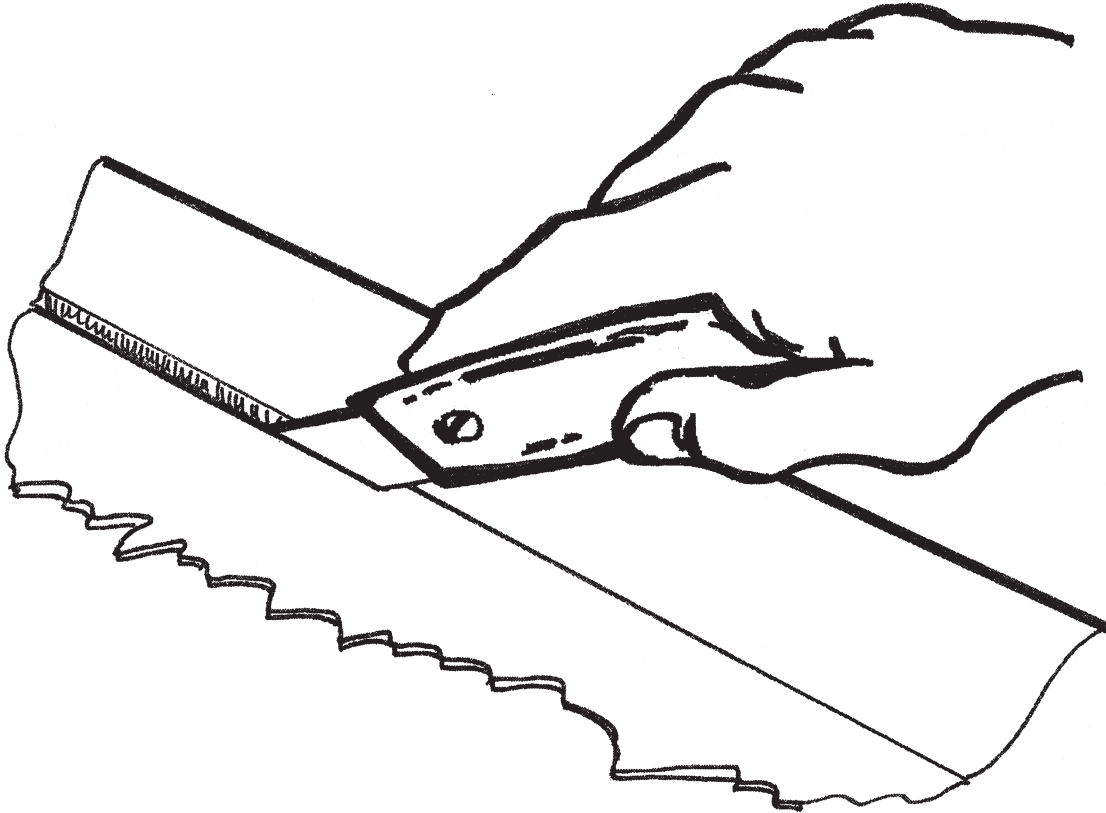
The tool shown is **one** (1) of the following:

- (a) Paint roller;
- (b) Laminating roller;
- (c) Rough roller;
- (d) Cutting roller.

**Underline** the correct answer.

[5]

5. The sketch below shows a tool being used to trim off rough edges after Glass Reinforced Plastic (GRP) has been laminated.



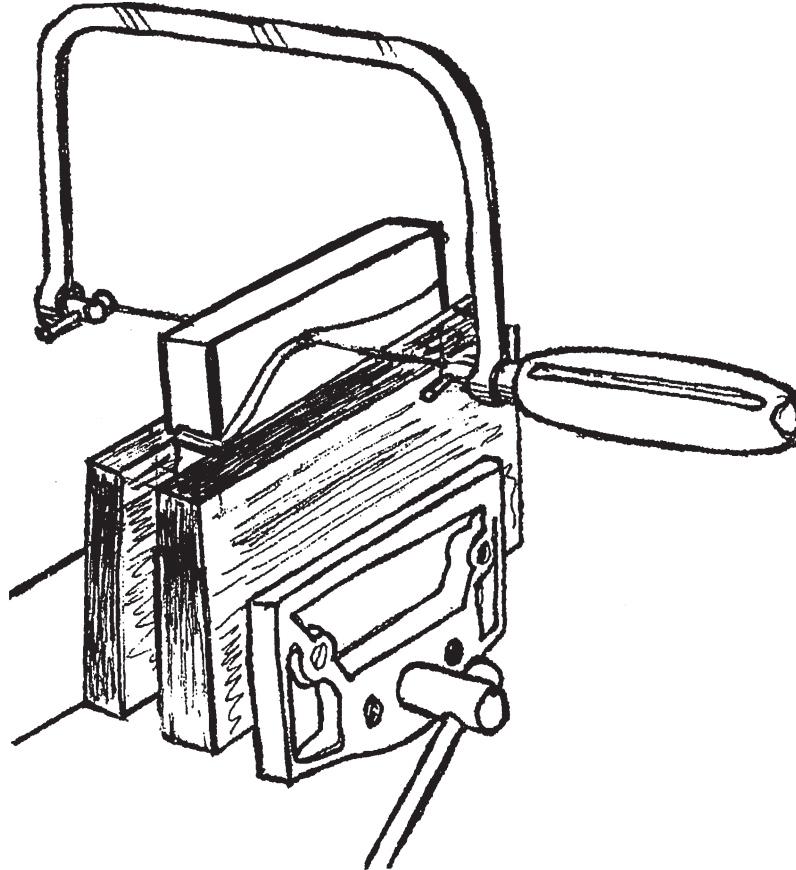
The tool being used is **one** (1) of the following:

- (a) Scalpel;
- (b) Stanley knife;
- (c) Marking knife;
- (d) Tenon saw.

**Underline** the correct answer.

[5]

6. The sketch below shows a saw being used to cut a piece of plastic.



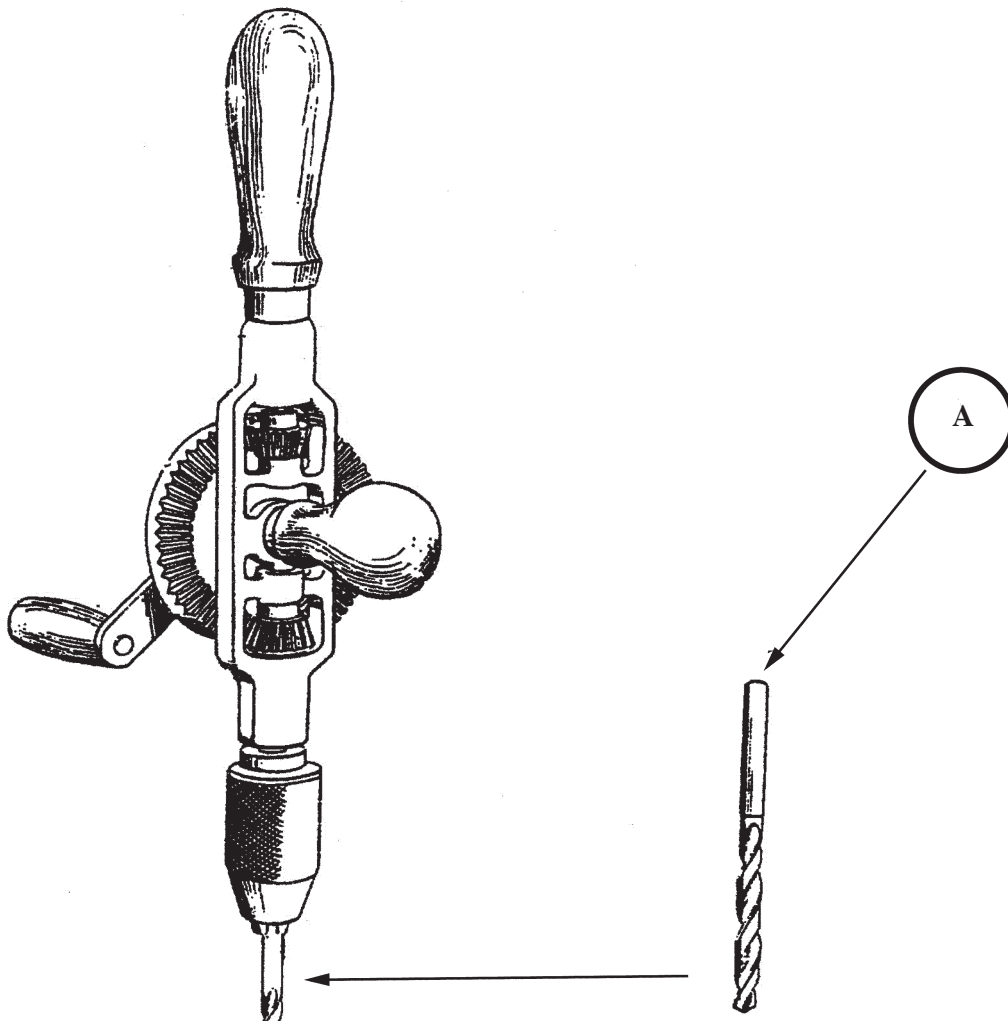
The saw being used is **one** (1) of the following:

- (a) Coping saw;
- (b) Hand saw;
- (c) Tenon saw;
- (d) Hole saw.

**Underline** the correct answer.

[5]

7. The sketch below shows a hand drill and the part used to make a hole in plastic material.



The part **A** is **one** (1) of the following:

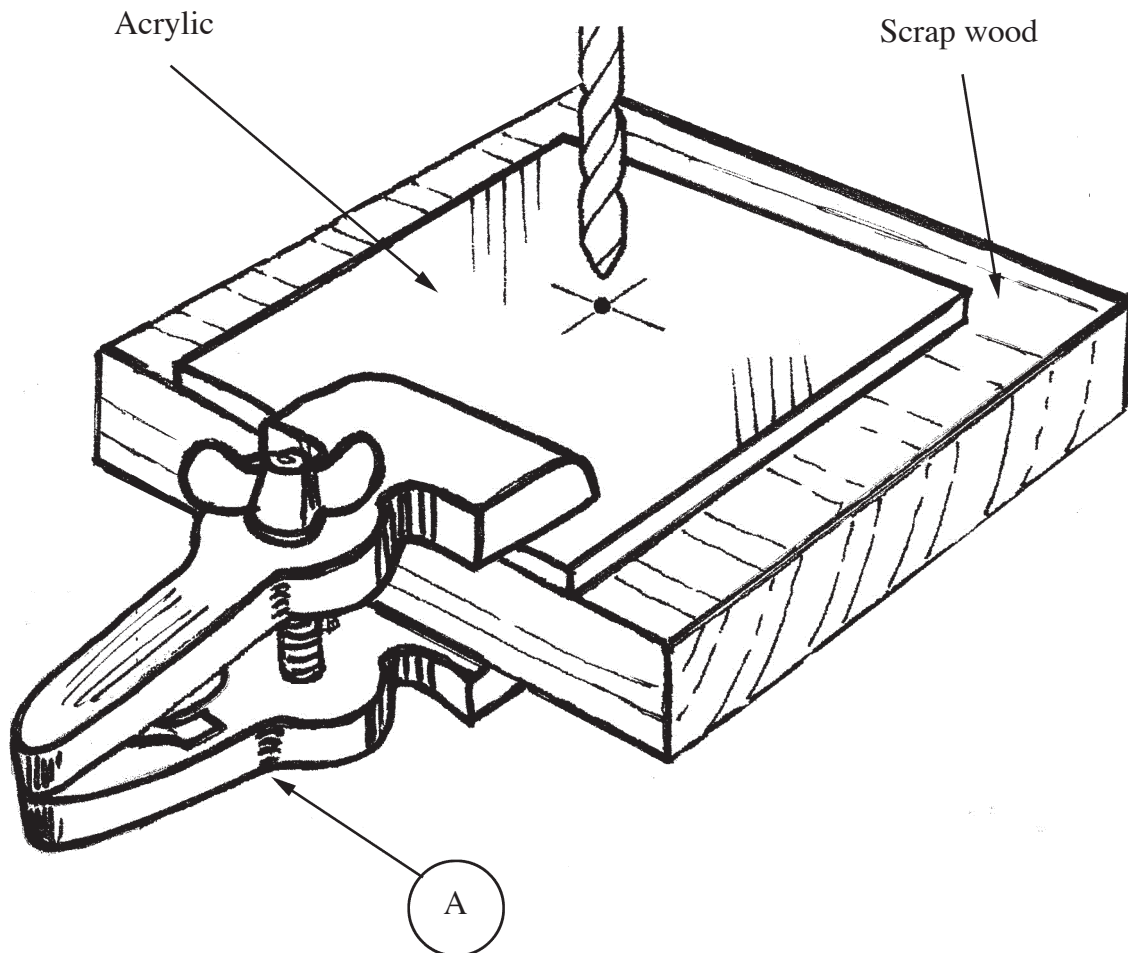
- (a) Flat bit;
- (b) Twist drill;
- (c) Masonry drill;
- (d) Hole drill.

**Underline** the correct answer.

[5]



8. The sketch below shows a piece of acrylic prepared for drilling.



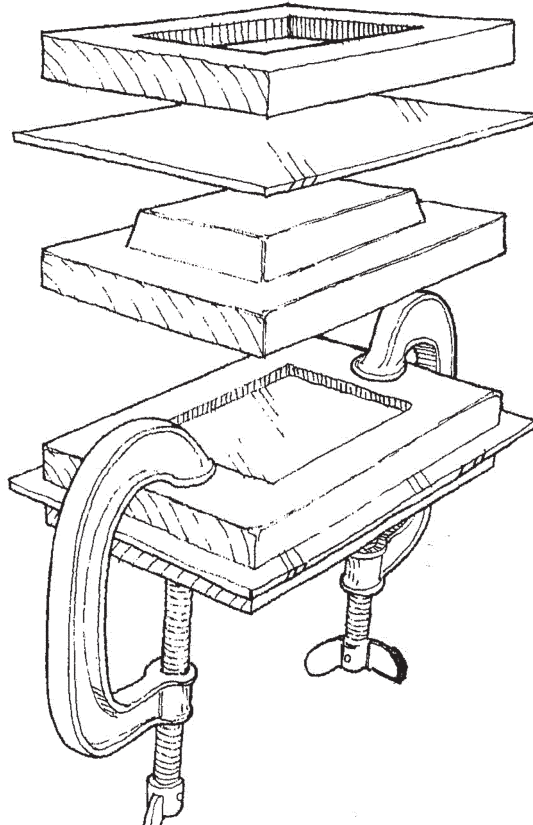
The tool (A) is **one** (1) of the following:

- (a) G cramp;
- (b) Hand vice;
- (c) Machine vice;
- (d) Plastic holder.

**Underline** the correct answer.

[5]

9. The sketch below shows a method of making small plastic dishes.



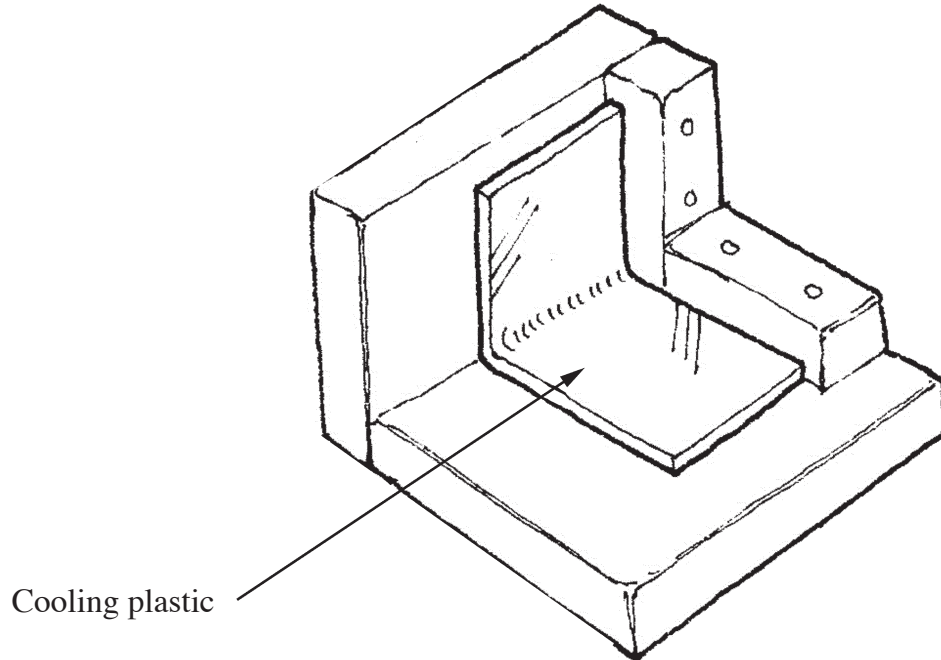
The method shown is **one** (1) of the following:

- (a) Vacuum forming;
- (b) Press forming;
- (c) Injection moulding;
- (d) Casting.

**Underline** the correct answer.

[5]

10. The sketch below shows a simple aid to keep plastic at 90 degrees as it cools.



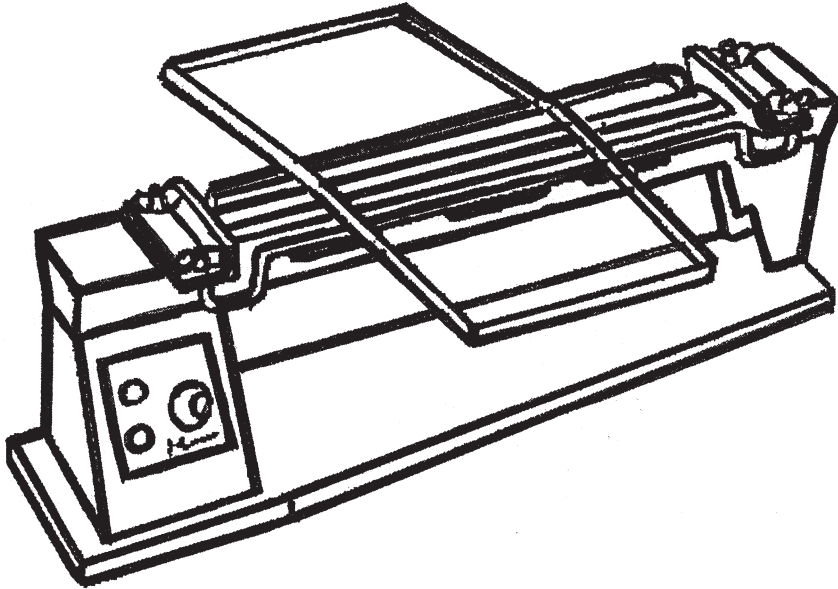
The aid is **one** (1) of the following:

- (a) Wood block;
- (b) Former;
- (c) Bench hook;
- (d) Angled wood.

**Underline** the correct answer.

[5]

11. The sketch below shows a machine that is used to heat plastic.



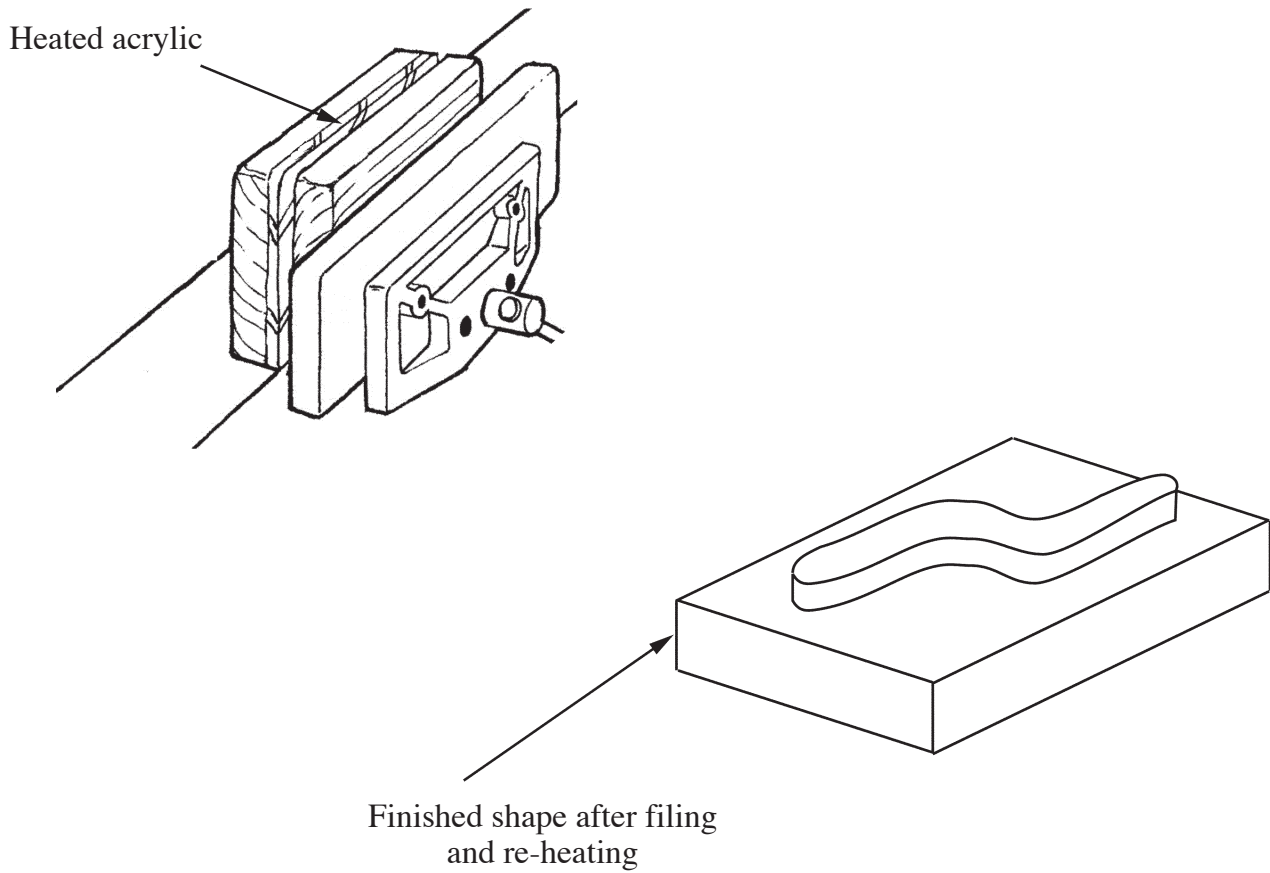
The machine is called **one** (1) of the following:

- (a) Vacuum former;
- (b) Strip heater;
- (c) Injection moulder;
- (d) Plastic bender.

**Underline** the correct answer.

[5]

12. The sketches below show a manufacturing process where a metal shape is pressed into heated acrylic.



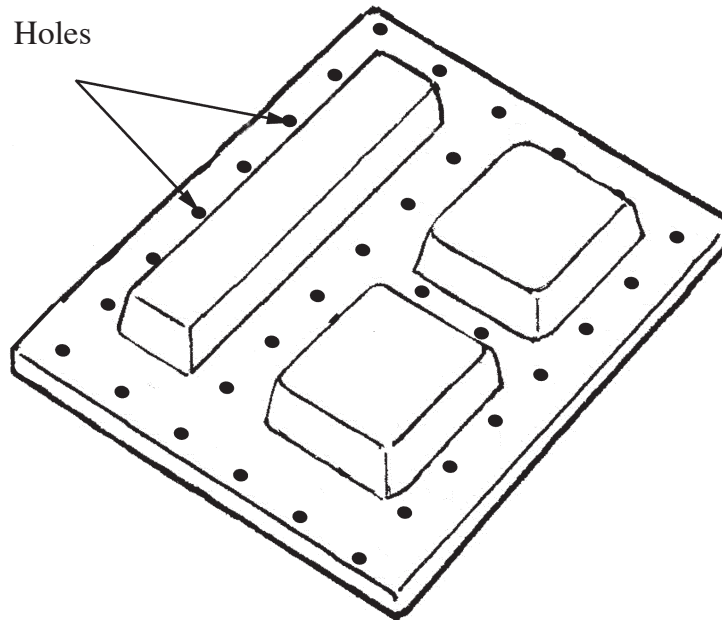
This process is called **one** (1) of the following:

- (a) Pressing plastic;
- (b) Memory technique;
- (c) Vacuum forming;
- (d) Acrylic heating.

**Underline** the correct answer.

[5]

13. The sketch below shows a wooden pattern for vacuum forming.



Holes are drilled through the pattern for **one** (1) of the following reasons:

- (a) to allow air to escape;
- (b) a mistake was made when the former was made;
- (c) this was the only material available;
- (d) to make a pattern on the plastic.

**Underline** the correct answer.

[5]

14. One of the two (2) main types of plastic, listed below, is used to make electrical fittings like light switches.

This type of plastic is called **one** (1) of the following:

- (a) Thermosetting;
- (b) Hard plastic;
- (c) Thermoplastic;
- (d) Light plastic.

**Underline** the correct answer.

[5]

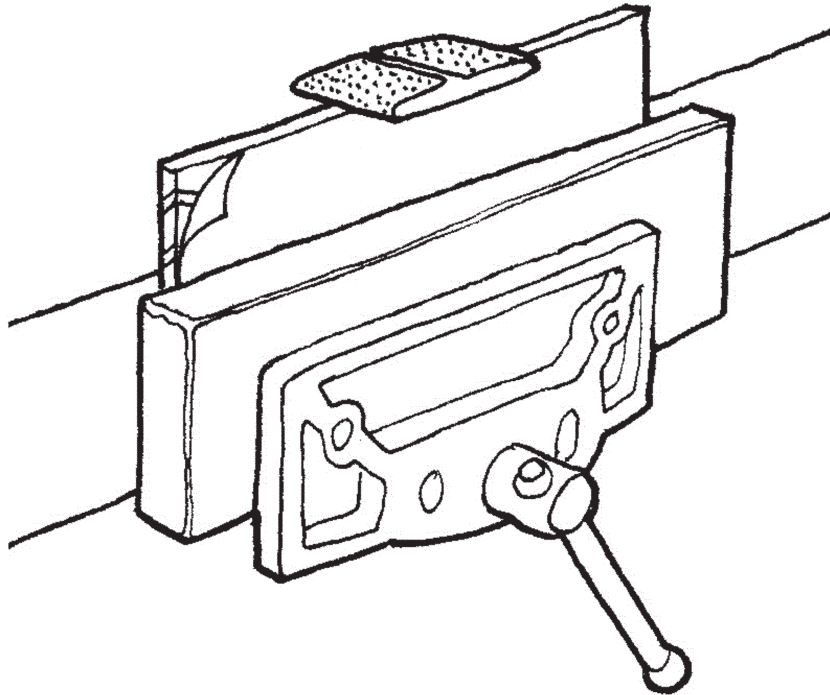
15. Plastic bottles are made using **one** (1) of the following processes:

- (a) Injection moulding;
- (b) Extruding;
- (c) Blow moulding;
- (d) Vacuum forming.

**Underline** the correct answer.

[5]

16. The sketch below shows the edge of a piece of acrylic being *finished* with abrasive paper.



The abrasive paper being used is called **one** (1) of the following:

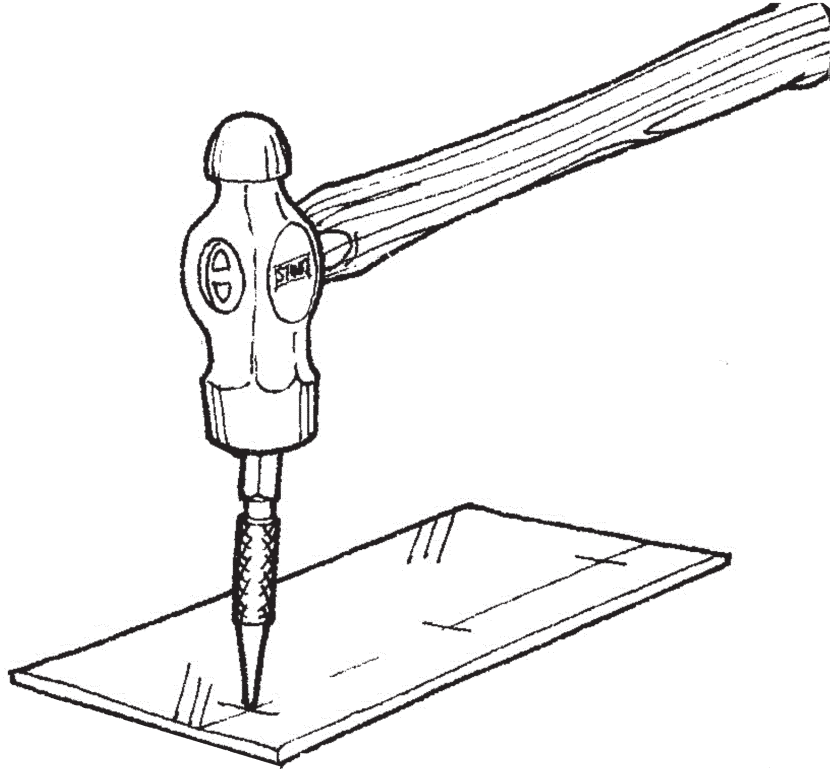
- (a) Glass paper;
- (b) Emery cloth;
- (c) Wet and dry paper;
- (d) Smooth paper.

**Underline** the correct answer.

[5]



17. The sketch below shows the position of a hole being marked out.



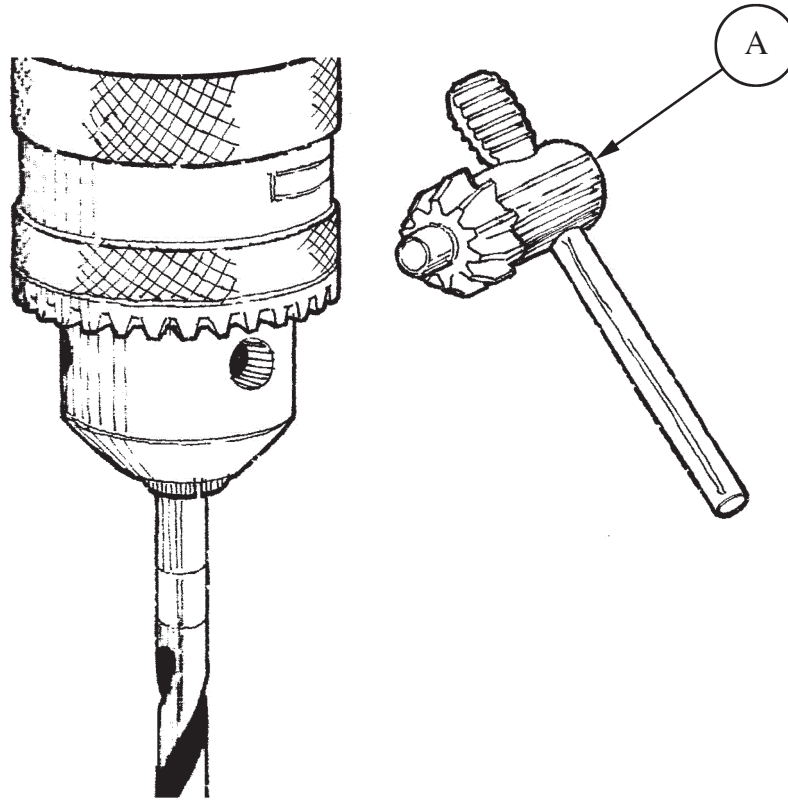
The tools being used are **one** (1) of the following:

- (a) Hammer and centre punch;
- (b) Hammer and pin punch;
- (c) Hammer and scriber;
- (d) Hammer and marking punch.

**Underline** the correct answer.

[5]

18. The sketches below show parts of a pillar drill.



The part labelled (A) is called **one** (1) of the following:

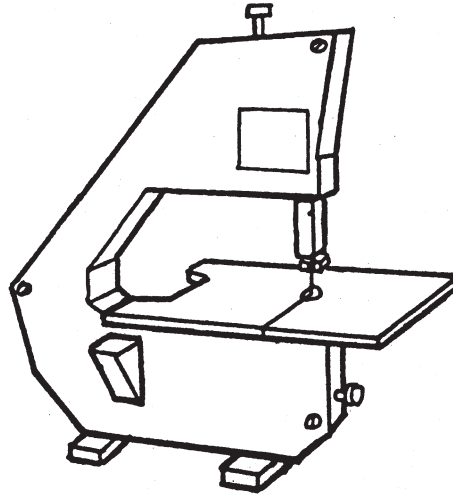
- (a) Bar key;
- (b) Chuck key;
- (c) Allen key;
- (d) Gear key.

**Underline** the correct answer.

[5]

19. This question is about safety in the Design and Technology room.

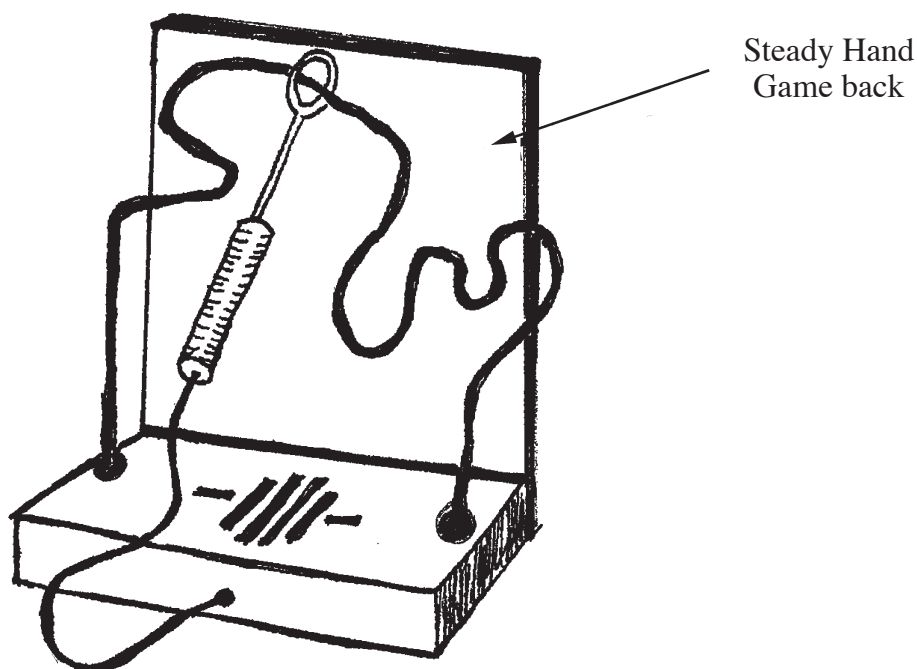
The sketch shows a Band Saw.



In the space below, **write** down **five** (5) safety rules you should take when cutting plastic. [5]

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....

20. The sketch below shows a Steady Hand Game.



(a) **Name** a suitable plastic material for making the back. **Complete** the sentence below.

I would use ..... to make the back. [1]

(b) In the space below, **draw** a colourful design which will form the back of the Steady Hand Game. The design should be suitable for a young child. [4]

