Situation

You are required to design and make an injection moulding die to produce small plastic artefacts or components. The component produced by the moulding die should be determined by the candidate as a result of research, but it should be one that has a three dimensional form, such as a container or connecting piece for a tubular structure. For testing and evaluating an ordinary hot melt glue gun can be used to make prototype components using PVA hot melt glue.

Points to consider in relation to Assessment Objective 1 to ensure that candidates are assisted towards a sound start:

- research should be carried out into the process of injection moulding and its wide commercial application;
- candidates should carry out experiments and trials around the injection moulding process using hot melt PVA glue;
- candidates should ensure that their product application for the injection moulding process is suitable and achievable;
- the product design specification should be appropriate to the application of the product and should take into account a system for quality production of the moulded components and how repeated quality and accuracy can be assured;
- candidates should identify and collect appropriate data from the investigation, analysis and evaluation of existing similar products.

Brief

Name: **No:**

Name: **No:**

Name: **No:**

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Name: **No:**

The product must be:

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Injection Moulding Kit - Section: Initial Design Ideas

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Name: **No:**

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Name: **No:**

Selected Idea 1

Details:

Materials:

Name: **No:**

Selected Idea 2

Details:

Materials:

Name: **No:**

Selected Idea 3

Details:

Materials:

Name: **No:**

Selected Idea 4

Details:

Materials:

Specification Point	Idea 1	Idea 2	Idea 3	Idea 4

The best idea that fulfils most of the criteria is:

Some ideas offer some of the spec:

Name: **No:**

Development 1

Materials:

Method of production:

Name: **No:**

Development 2
Model Making

How did I construct the model? (Including materials used)

What worked – (How):

What didn't work – (Why):

What changes did I make to my final design idea:

Summary:

Photographs

Name: **No:**

Injection Moulding Kit – Section: Rough Drawing – Final Design

This sheet shows rough sketches of the final product.
It Includes dimensions, details of individual parts and how they might fit together and materials to be used.

Name: **No:**

Injection Moulding Kit – Section: Final Design

- 3D drawing
- Exploded diagram
- Orthographic drawing
- Finishing

Name: **No:**

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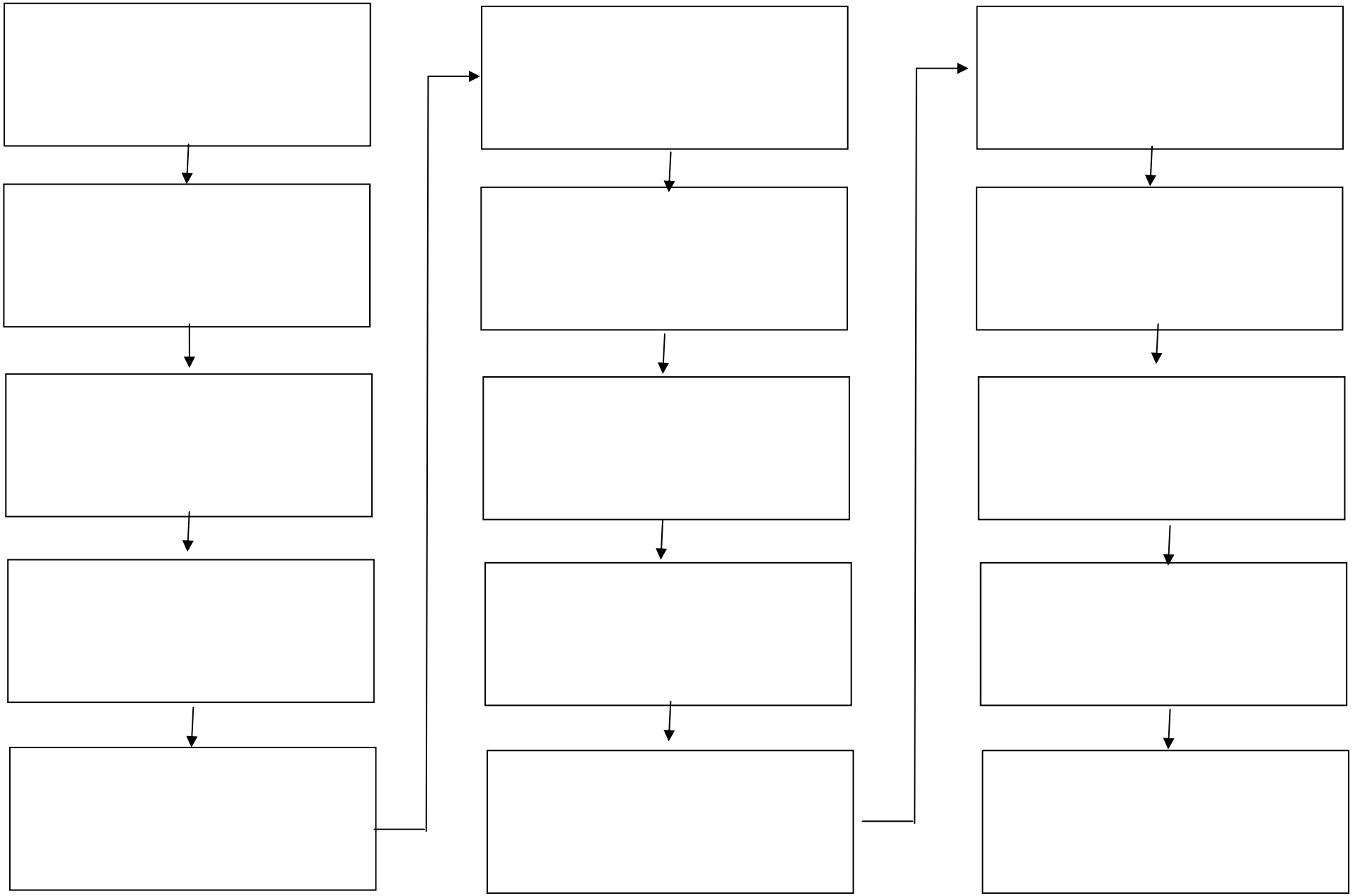
Injection Moulding Kit - Section: Cutting List

Part	Quantity	Length	Width	Thickness	Material	Cost

Name: **No:**

Injection Moulding Kit – Section: Plan for Manufacture



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