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			

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	Industrial Technology	Injection Moulding Kit - Section	on: Task Analysis	
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_	Industrial Technology		Injection Moulding Kit - Section	on: Research – Injection Moulded I	Products
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\dashv	Industrial Technology			Injection Moulding Kit - Secti	on: Research – Injection Moulding	Process
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\dashv	Industrial Technology			Injection Moulding Kit - Section	on: Research – Existing IM Equipm	ent
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\dashv	Industrial Technology		Injection Moulding Kit - Secti	on: Research - Injection Moulding	Experiment
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	Industrial Technology	Injection Moulding Kit - Section	on: Research – Plastic for Injection	Moulding
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Industrial Technology	Injection Moulding Kit - Secti	on: Research – Mechanisms	
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	Industrial Technology	Injection Moulding Kit - Section	on: Research – Pneumatics	
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\Box	Industrial Technology		Injection Moulding Kit - Secti	on: Research Summary	-
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-	Industrial Technology		Injection Mou	ulding Kit - Sect	tion: Initial	Design Ideas	
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	Industrial Technology			Injectio	n Mouldin	g Kit - Sect	ion: Initial	Design Ideas		
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Specification Point	Idea 1	ldea 2	ldea 3	Idea 4
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The best idea that fulfils most of the criteria is:

Some ideas offer some of the spec:

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Industrial Technology	Injection Moulding Kit – Se	ction: Development of Idea	
Development 1			
Materials:	Method o	f production:	
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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:

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Industrial Technology	Injection Moulding Kit – Section: Rough Drawing – Final Design
This sheet shows rough sketches of the large that t	ne final product. idual parts and how they might fit together and materials to be used.
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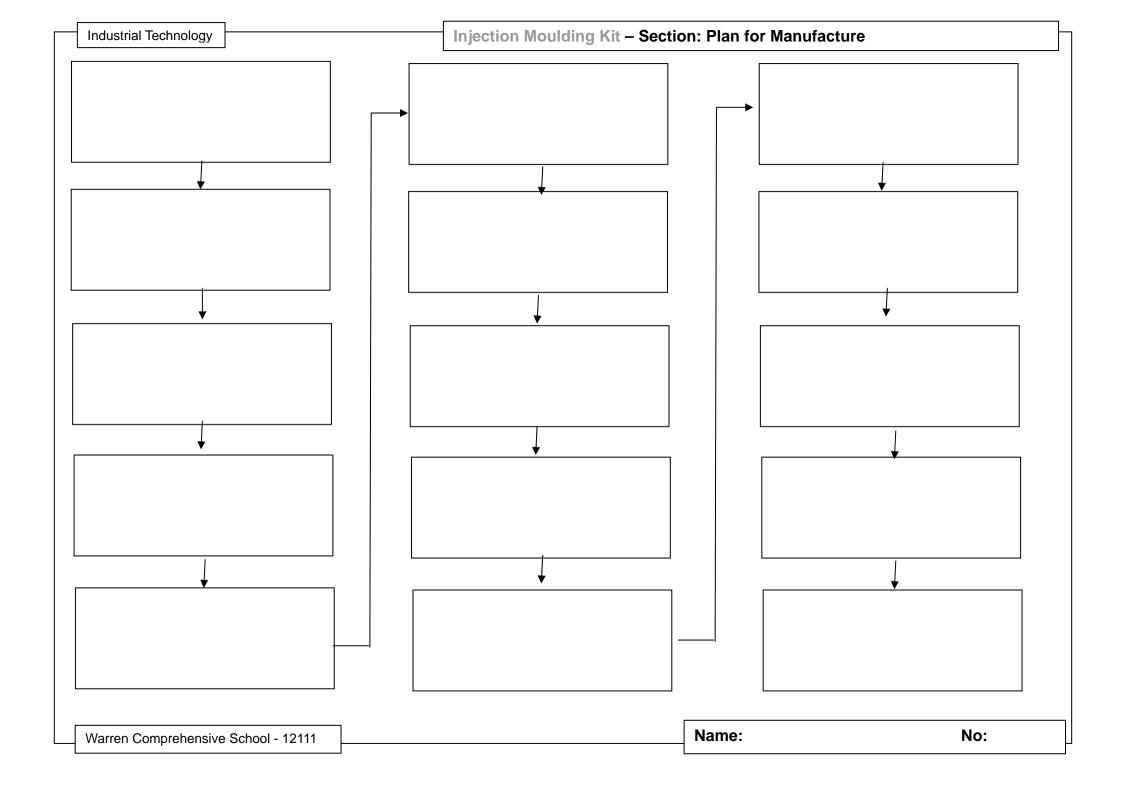
	Industrial Technology		Injection Moulding Kit - Sec	etion: Final Design	
 3D drawing Exploded diagram Orthographic drawing Finishing 					
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	Industrial Technology	Injection Moulding Kit – Section	n: Final Specification	
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Injection Moulding Kit - Section: Cutting List

Part	Quantity	Length	Width	Thickness	Material	Cost

Name: No:



Industrial Technology	Injection Moulding Kit - Section	on: Third Party Evaluation	
		Name:	No:

Industrial Technology	Injection Moulding Kit - Section: Testing
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_	Industrial Technology	Injection Moulding Kit - Section	on: Modifications - Improvements	
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Industrial Technology	Injection Moulding Kit - Section	on: Photo Gallery	
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Warren Comprehensive School - 12111		Name:	No: