## 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

Industrial Technology	Injection Moulding Kit - Secti	on: Task Analysis	
Warren Comprehensive School - 12111		Name:	No:

Industrial Technology	Injection Moulding Kit - Section	on: Research – Injection Moulded P	roducts
Warren Comprehensive School - 12111		Name:	No:

Industrial Technology	Injection Moulding Kit - Sect	on: Research – Injection Moulding P	rocess
Warren Comprehensive School - 12111		Name:	No:

· · · · · · ·	
Industrial Technology	

	Industrial Technology		Injection Moulding Kit - Section	on: Research – Injection Moulding	Experiment
Ц	Warren Comprehensive School - 12111	]		Name:	No:

Industrial Technology	Injection Moulding Kit - Sect	ion: Research – Plastic for Injection Moulding	
ı		· · · · · ·	]
Warren Comprehensive School - 12111		Name: No:	

	Industrial Technology			Injection Moulding Kit - Sect	ion: Research –	Mechanisms	
			-				
_					<b></b>		1
Ц	Warren Comprehensive	School - 12111			Name:		No:

Industrial Technology	Injection Moulding Kit - Section: Research – Pneumatics
maddinal reenhology	injection moulding fitt - Dection. Research - Theumatics

	Industrial Technology		Injection Moulding Kit - Section	on: Research – Survey	
		-			
Г			]		

Industrial Technology	Injection Moulding Kit - Section	on: Research Summary	F
	-		
Warren Comprehensive School - 12111		Name:	No:

dustrial Technology	Injection Moulding Kit - Section: Specification	
The product must be:		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
• -		
arren Comprehensive School - 12111	Name: No:	

Industrial Technology	Injec	ction Mouldin	g Kit - Sec	tion: Initial	Design Ideas	
1			2			
	3					
					]	
Warren Comprehensive School - 12111				Name:		No:

[	Industrial Technology		Injection M	oulding Kit - Sec	tion: Initia	l Design Ideas	
	4			5			
						1	
		6					
_							
_	Warren Comprehensive School - 12111				Name:		No:

Industrial Technology	Injection Moulding Kit – Section: 4 Selected Design Ideas	
Selected Idea 1		
Details:		
Materials:		
Warren Comprehensive School - 12111	Name: No:	

Industrial Technology	Injection Moulding Kit – Sect	tion: 4 Selected Design Ideas	
Selected Idea 2			
Details:			
Materials:			
Warren Comprehensive School - 12111		Name:	No:

Industrial Technology	Injection Moulding Kit – Section: 4 Selected Design Ideas	
Selected Idea 3		
Details:		
Actoriala		
Materials:		
Warren Comprehensive School - 12111	Name: N	o:

Industrial Technology		Injection Moulding Kit – Sec	tion: 4 Selected Design Ideas	
Selected lo	lea 4			
Details:				
Aaterials:				
Warren Comprehensive	Sahaal 12111		Name:	No:

Specification Point	Idea 1	Idea 2	Idea 3	ldea 4	The best idea that fulfils most of
					the criteria is:
					Some ideas offer some of the
					spec:

Industrial Technology		Injection Moulding Kit – Section: Development of Idea	
Development	1		
-			
Materials:		Method of production:	
Warren Comprehensive	School - 12111	Name:	No:

	, , , , , , , , , , , , , , , , , , ,		
Development 2 Model Making How did I construct the model? (Including materials used	)) ))	otographs	
What worked – (How):			
What didn't work – (Why):			
What changes did I make to my final design idea:			
Summary:			
		News	
Warren Comprehensive School - 12111		Name: No	):

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.

Warren Comprehensive School - 12111	Name:	No:

## Injection Moulding Kit – Section: Final Design

- 3D drawing
  Exploded diagram
  Orthographic drawing
  Finishing

Industrial Technology	Injection Moulding Kit – Section: Final Specification	
• -		
• •		
• •		
• -		
• •		
• -		
• -		
Warren Comprehensive School - 121	11 Name: No:	



Warren Comprehensive Sc	chool - 12111
-------------------------	---------------

Warren Comprehensive School - 12111

Industrial Technology	Injection Moulding Kit - Secti	on: Final Evaluation	
Warren Comprehensive School - 12111		Name:	No:

Industrial Technology	Injection Moulding Kit - Secti	on: Modifications - Improvements	
Warren Comprehensive School - 12111		Name:	No:

Industrial Technology	Injection Moulding Kit - Sect	on: Photo Gallery	
Warren Comprehensive School - 12111		Name:	No: