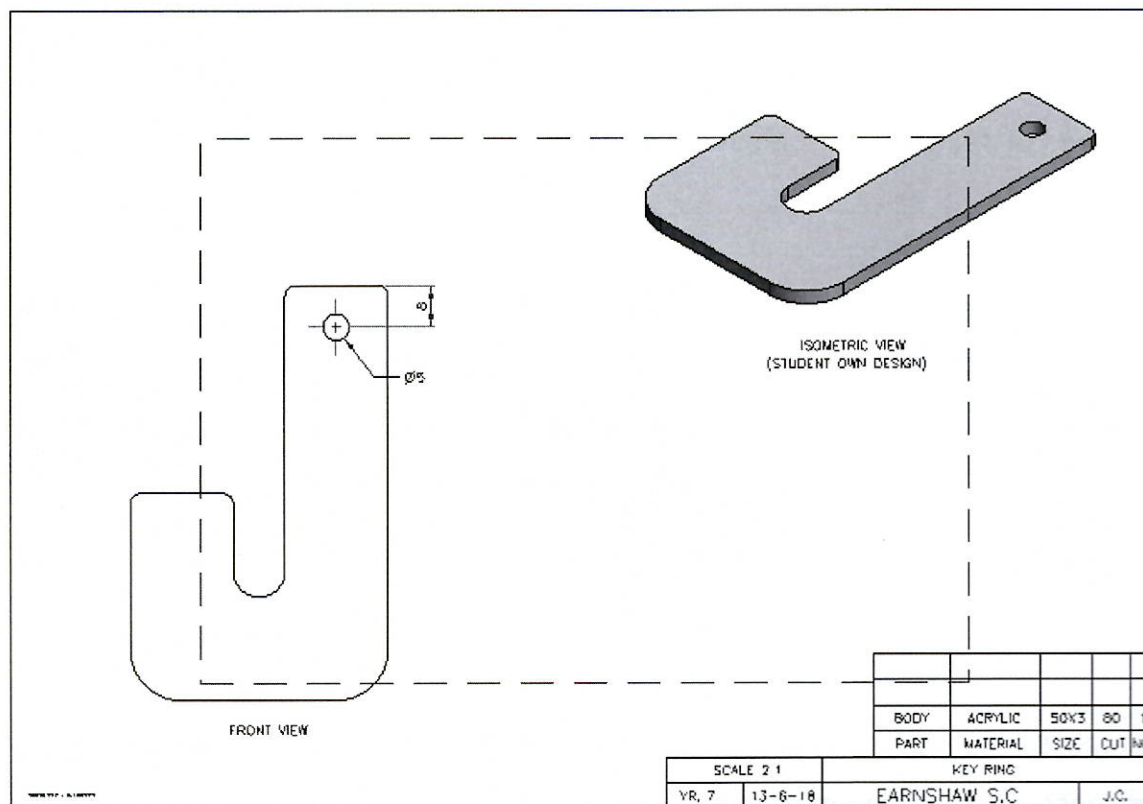


	EARNSHAW STATE COLLEGE		
	Student name:		Student number:
	Teacher name:		Date:
Subject	Year 7 Materials and Technologies Specialisations		
Technique	Project (Product and Theory Booklet)		
Unit	Manufacturing Design		
Topic	The Manufacturing of Key Rings		
Conditions			
Time	10 Weeks (ongoing assessment)	Perusal	
Word length		Seen/unseen	
Due Date		Draft Due	
Stimulus/Context			
This unit introduces production processes used in the creation of quality products for the manufacturing industry.			
Other Conditions			
- Work is to be completed individually, supervised with teacher assistance. Some assistance (e.g. assembly phase, occasional technical assistance) from fellow students is allowed. - Questions 1, 2 and 6 to be done under exam conditions.			
Assessment objective/s			
- Knowledge and Understanding - Processes and Production Skills			
Statement Of Authenticity			
- Student will provide documentation of their progress at indicated checkpoints - Student will submit a declaration of authenticity		- Teacher will provide class time for task completion - Teacher will collect and annotate drafts. - Teacher will conduct interviews or consultations with student as they develop the response.	
I _____ (name in full) declare that all unacknowledged work is my own. To authenticate this, I will: - provide documentation of my progress at indicated checkpoints - ensure that all planning and drafts are attached to the final copy of the response _____ (signature) _____ (date)			
School Assessment Policy / Absence			
Your final result is based on evidence presented on or before the date of the assessment. Requests to sit the exam or submit the assessment after the assessment date must be sought from the Head of Department prior to the assessment date if possible and must be accompanied by a medical certificate, documentation or parental contact. Technology failure (including USB, internet, printer, loss of calculator) is not an acceptable reason for inability to sit the exam or submit the assessment.			
Feedback			
Moderation			
Moderated Result:		Moderator Signature:	

MARKING GUIDE		IDT07			
	A	B	C	D	E
Knowledge and Understanding 1 Technology & society	comprehensive explanation of: factors that influence the design of products, services and environments to meet present and future needs the contribution of design and technology innovations and enterprise to society	detailed explanation of: factors that influence the design of products, services and environments to meet present and future needs the contribution of design and technology innovations and enterprise to society	explanation of: factors that influence the design of products, services and environments to meet present and future needs the contribution of design and technology innovations and enterprise to society	description of: factors that influence the design of products, services and environments to meet present and future needs the contribution of design and technology innovations and enterprise to society	statements about: factors that influence the design of products, services and environments to meet present and future needs the contribution of design and technology innovations and enterprise to society
Knowledge and Understanding 2 Technologies contexts	comprehensive explanation how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts	detailed explanation of how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts	explanation of how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts	partial explanation of how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts	statements about how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts
Processes and Production skills 3. Investigating and defining	comprehensive evaluation of needs or opportunities for each of the prescribed technologies contexts	detailed evaluation of needs or opportunities for each of the prescribed technologies contexts	evaluation of needs or opportunities for each of the prescribed technologies contexts	explanation of needs or opportunities for each of the prescribed technologies contexts	statement about needs or opportunities for each of the prescribed technologies contexts
Processes and Production skills 4. Generating and designing	purposeful creation and adaptation of design ideas making well-considered decisions comprehensive and effective communication to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques	effective creation and adaptation of design ideas making considered decisions effective communication to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques	creation and adaptation of design ideas making considered decisions communication to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques	partial creation and adaptation of design ideas making decisions partial communication to audiences using technical terms and technologies and graphical representation techniques	fragmented creation and adaptation of design ideas fragmented communication to audiences using everyday language and graphical representation techniques
Processes and Production skills 5. Producing and implementing	proficient and consistent production of effective designed solutions for the intended purpose independently and safely	consistent production of effective designed solutions for the intended purpose independently and safely	production of effective designed solutions for the intended purpose independently and safely	guided production of designed solutions for the intended purpose safely	guided production of designed solutions for a purpose safely
Processes and Production skills 6. Evaluating	development of comprehensive criteria for success, including sustainability considerations discerning use of criteria for success (including sustainability considerations) to judge the suitability of: - their ideas - designed solutions - processes	development of detailed criteria for success, including sustainability considerations informed use of criteria for success (including sustainability considerations) to judge the suitability of: - their ideas - designed solutions - processes	development of criteria for success, including sustainability considerations use of criteria for success (including sustainability considerations) to judge the suitability of: - their ideas - designed solutions - processes	development of partial criteria for success, including sustainability considerations partial use of criteria for success (including sustainability considerations) to describe the suitability of: - their ideas - designed solutions - processes	statements of criteria for success fragmented use of criteria for success to make statements about: - their ideas - designed solutions - processes
Processes and Production skills 7. Collaborating & managing	application of project management skills to include comprehensive documentation and discerning use of project plans to manage production processes.	application of project management skills to include detailed documentation and informed use of project plans to manage production processes.	application of project management skills to document and use project plans to manage production processes.	application of project management skills to partially document project plans and use of production processes.	use of project management skills to partially document aspects of project plans and use aspects of production processes.
Feedback					

Task

You are a product designer for a company that has asked you to design and build a prototype Key ring.



Scaffolding

WTE

3. Investigating and defining

You must use a W-start sentence.

If your response doesn't provide justification, use the word 'because' in your response.

4. Generating and designing

You must use a W-Start sentence.

KNOWLEDGE AND UNDERSTANDING

1. Technology and society

A. Explanation of factors and technologies

- (i) What is the name of the material used in the Key ring?
- _____
- (ii) A sheet of plastic 900mm long and 600mm wide material is cut into pieces 80mm long and 50mm wide. How many key ring blanks could be cut from this size sheet? You must show working.
- (iii) 95 key rings can be cut out of one large piece of plastic. How much would one key ring cost if a full sheet costs \$76.45. You must show working.
- (iv) List six tools/equipment items used in the production of your key ring.
1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

B. Changes to designed solutions

List 2 possible mistakes that could lower the quality of your final key ring.

	POSSIBLE MISTAKE	HOW TO PREVENT THE MISTAKE OR CORRECT IT.
1.		
2.		

2. Technologies contexts

A. Evaluation of tools (technologies).

In producing the key ring compare why we used certain tools and not others. Relate your answer to the key ring.

Why would you use a **Smooth File** compared to a **Bastard File**?

Which is better, drilling the key ring hole using a **drill press** compared with a **battery drill**?

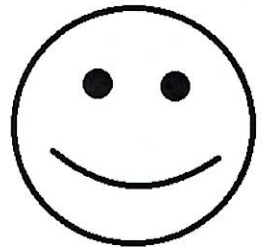
Coping saw compared with a **tenon saw**.

PROCESS AND PRODUCTION SKILLS**3. Investigating and defining**

- A. Context: You are a product designer for a company that has asked you to design and build a prototype Key ring.
- B. Possible key ring shapes. These may include a surfboard, the first letter from a person's name, a sporting team logo (Broncos), a popular brand logo (Nike).

Below, list ten key ring shapes that appeal to you.

1. HAMMER 2. GUITAR 3. DOG 4. SPANNER
 5. CAR 6. BANANA 7. CRICKET BAT 8. BOOT
 9. KEY 10. THE LETTER 'S'



- C. Tick "✓" 3 shapes you think are the best.

- D. Overall shape.

- Think about the outside of a possible shape
- Think about **the only internal details that can be used are circles that are created by a drill.**
- Think about the example of a smiley face with eyes and mouth. **The mouth would not be possible to create as it is not circular and so can't be used in the design.**

After considering all possible factors, sketch a possible key ring design. **USE A PENCIL.**
 Do not to use a rubber or ruler.

- E. **Explain** - why you have chosen this design?

List - what you like and dislike about your first attempt.

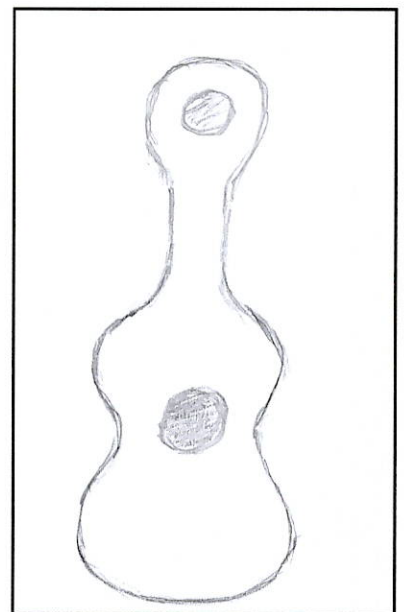
Provide two examples of each. Start each sentence with a capital letter, end with a full stop.

You must use **W-start sentences.**

Word List: Symmetrical, break, shape, circular, straight, parallel, square, asymmetrical.

+ 's _____

- 's _____

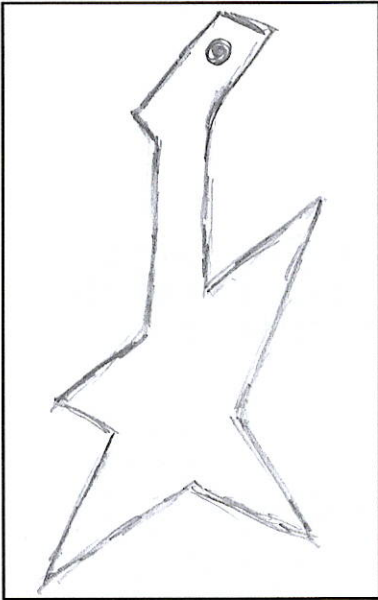


Don't start a sentence with "but", "also" or "because".

4. Generating and designing

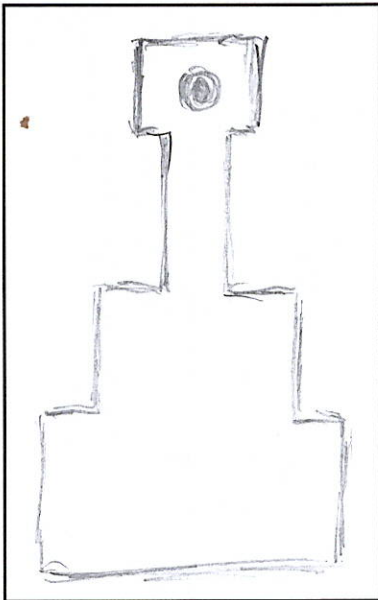
Sketch three different design **variations** of your chosen shape. Think about square corners versus rounded corners. Think about the size of the shape compared to the size of the plastic. Think about the position of the key ring hole. Think about the symmetry of the shape. Now write a comment (+ / -) about each one and pick the final design you will use. Explain why!!! **USE A PENCIL.**

You must use a **W-start sentence** commencing with a capital letter and finishing with a full stop.



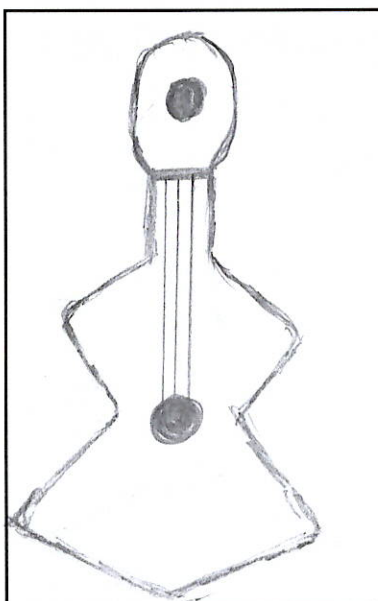
+s - WHAT I LIKE ABOUT THIS
IS THE STRAIGHT LINES.
WHEN LOOKING AT THE SHAPE,
I THINK IT IS A GOOD SIZE.
-s - WHEN LOOKING AT THE SHAPE,
THERE ARE SHARP CORNERS.

WHAT COULD BE IMPROVED IS THE
KEY RING HOLE PLACEMENT.



+s - WHAT I LIKE ABOUT THIS IS
IT'S EASY TO MAKE.
WHILST EASY TO MAKE THE HOLE
PLACEMENT IS STRONGER

-s - WHEN I LOOK AT IT I THINK
IT LOOKS LIKE A CAKE!
WHAT IT LOOKS LIKE NOW IS NOT A GUITAR



+s - WHAT I LIKE ABOUT THIS IS
IT LOOKS LIKE GUITAR AGAIN.
WHILST THE SHAPE IS BETTER, IT'S
ALSO STRONGER

-s - NOTHING! IT'S PERFECT!

5. Producing and implementing

Key Ring production.

This relates to the quality of your final key ring.

6. Evaluating

Evaluation

To produce a well-made Key Ring, it's important that your work is done to a high standard. Make a judgement of **your** project (tick the relevant box) about the aspects below and finally write a comment justifying your decision, explaining why you have made the relevant judgement.

Success criteria	Judgement				Justification/Reasons
	V. G.	G.	S.	P.	
1. How strong and durable is my key ring?					
2. Is my final key ring shape the same as my choice in section 4?					
3. What is the quality of my Key Ring edges?					

7. Collaborating and managing

Making adjustments to the project where necessary and working independently and in a cooperative manner.

Your teacher will make continual observations regarding these things.