



MINISTRY OF EDUCATION & CULTURE

STUDENT EDUCATION NUMBER

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Samoa Secondary Leaving Certificate

DESIGN TECHNOLOGY 2025

QUESTION and ANSWER BOOKLET

Time allowed: 3 Hours & 10 minutes

INSTRUCTIONS

1. You have 10 minutes to read **before** you start the exam.
2. Write your **Student Education Number (SEN)** in the space provided on the top right-hand corner of this page.
3. **Answer ALL QUESTIONS.** Write your answers in the spaces provided in this booklet.
4. If you need more paper to write your answers, ask the Supervisor. Write your SEN on all extra sheets used and clearly number the questions. Attach the extra sheets to the appropriate places in this booklet.

STRANDS		Pages	Time (min)	Weighting
STRAND 1	DESIGNING Demonstrate knowledge and understanding of the principles of design and solving practical problems through the design process.	2-5	50	25
STRAND 2	DRAWING Develop the ability to communicate in graphic and verbal forms.	6-7	25	15
STRAND 3	TOOLS Demonstrate knowledge and understanding of the safe use and care of tools in the workshop.	8-9	25	15
STRAND 4	MATERIALS Demonstrate knowledge and understanding of the use of variety of materials used in a school workshop.	10-12	25	15
STRAND 5	PROCESSES Demonstrate knowledge and understanding of the processes used when working with materials and tools in the workshop.	13-15	50	25
STRAND 6	TECHNOLOGY Demonstrate knowledge and understanding of the nature of technology and its effects on the lives of people.	16	5	5
TOTAL			180	100

Check that this booklet contains pages 2-17 in the correct order and that none of these pages are blank.

HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

1. Describe a design problem you solved in class this year.

Problem

SL 1

2. Select the best solution for the situational problem you provide in Question 1.

Solution

SL 1

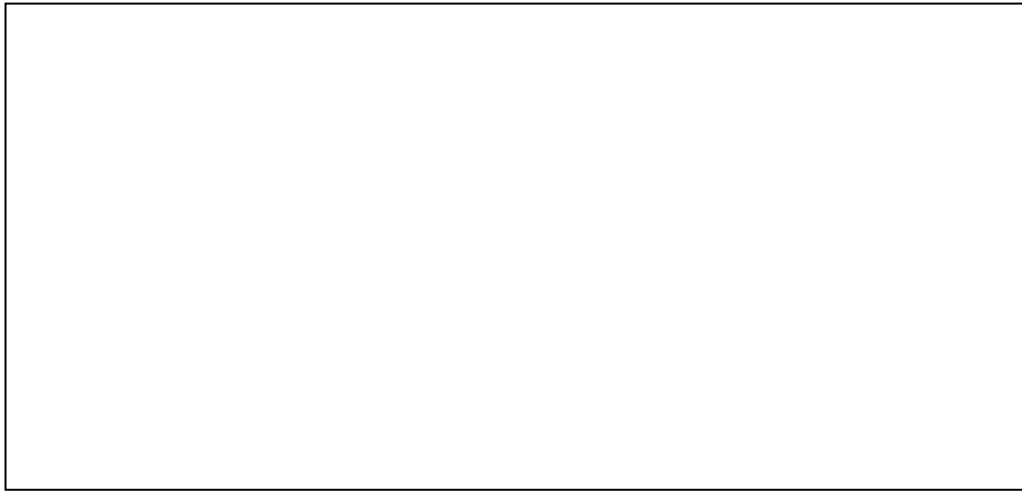
3. Identify the purpose of your problem statement stated in Question 1.

SL 1

4. (i) Draw a free hand sketch for the design solution in Question 2.

SL 2

(ii) Use a different idea of your choice to draw a different free hand sketch for the design solution in Question 2.

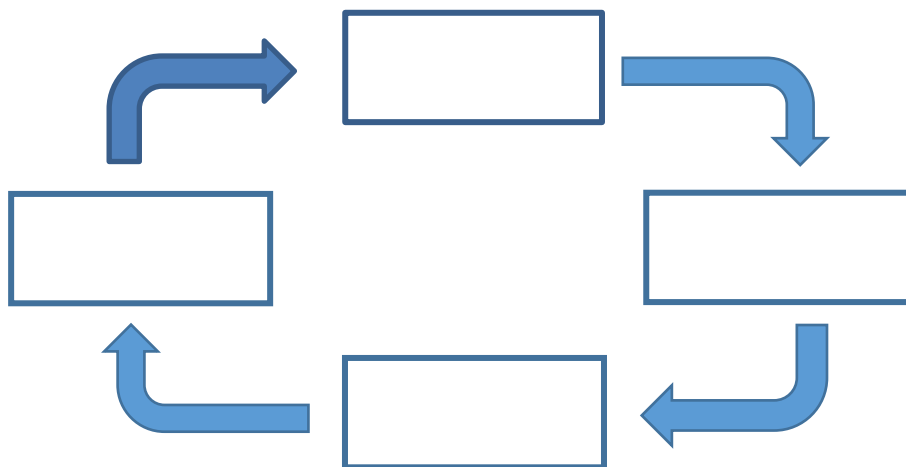


SL 2

5. List **ONE material** and **ONE functional requirement** for the design solution in Question 2.

SL 2

6. Plan the correct designing cycle for the design process.



SL 2

7. (i) Describe the main purpose of a **design brief**.

SL 3

(ii) Compile a list of materials needed for your independent project sketch in Question 4 (i).

SL 3

8. Assess the outcomes of your independent project at school by identifying one success and one area that requires improvement.

SL 4

10. Name the line type to show hidden edges in a drawing.

A. _____

SL 1

11. List **TWO** drawing lines that go together when project measurements are identified.

A. _____

B. _____

SL 2

12. Measure a 250mm on the diagram provided using a 1:5 reduction scale.



SL 2

13. (i) Compare an isometric and oblique drawing in your own words.

SL 3

15. Define the hand tool given below.



SL 1

16. Identify the following power tool in your own words.



SL 1

17. Name a tool that can be used to cut curves in thin timber.

SL 1

18. Classify the following tools into their correct group.

Utility Knife, Screwdriver, Mallet, Benchstop

Cutting Tools	Impelling Tools	Geometrical Tools	Holding and Supporting Tools	Levelling Tools

SL 2

19. Compare the capabilities of power and battery tools.

SL 3

20. Explain why tools are grouped accordingly.

SL 3

21. Discuss why tools should be serviced and maintained on schedule.

SL 4

22. Name the part of the tree that passes minerals and waters up to the leaves.

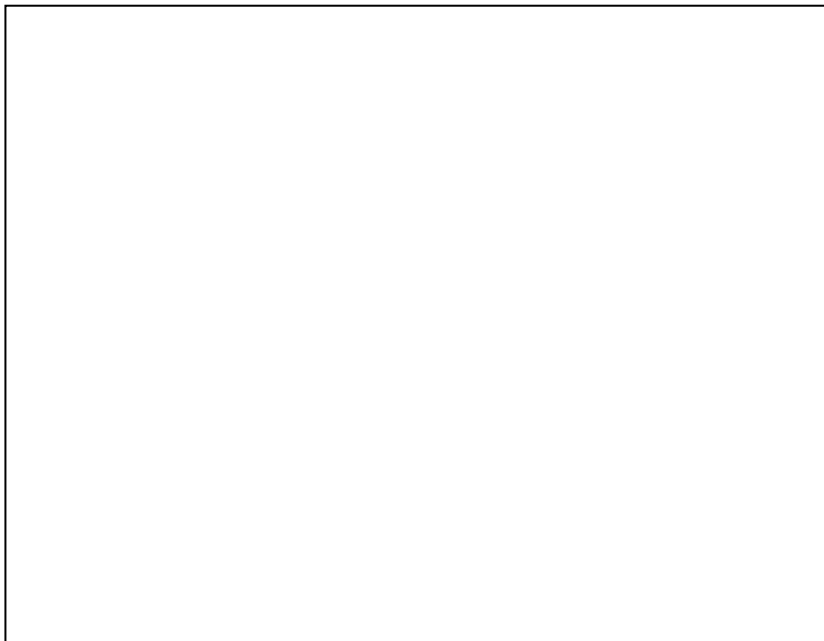
SL 1

23. Select a local timber tree that is commonly used in the construction of a faleo'o post. (*fetau, pulu, poumuli, kava, ifilele*)

SL 1

24. Draw and label the following on the cross section part of a tree trunk.

(Pith, Bark, Medullary Rays)

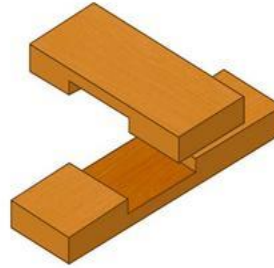


SL 2

29. Identify the following type of timber joint.

(i) Timber joint type A.

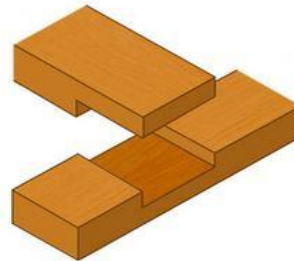
A: _____



SL 1

(ii) Timber joint type B.

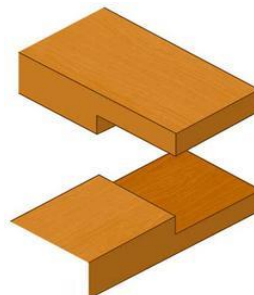
B: _____



SL 1

(iii) Timber joint type C.

C: _____



SL 1

30. Describe the construction process of a dowel joint.

SL 2

31. List two finishing paints that you have used in school.

- a. _____
- b. _____

SL 2

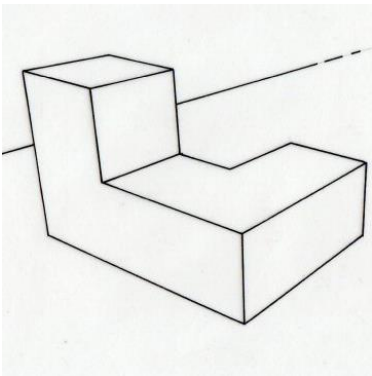
32. Describe a good trades practice in the workshop.

SL 2

33. Explain why the good use of resources in any workshop is needed.

SL 2

34. Interpret the following Isometric and draw the 3rd angle view of the object.



SL 3

35. Explain the construction of a mitre joint.

SL 3

36. Discuss the relationship of a cutting list to project building.

SL 4

37. Differentiate between wood stain and wood varnish.

SL 4

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SSLC DESIGN TECHNOLOGY

2025

(For Scorers only)

STRANDS		Weighting	Scores	Check Scorer	AED Check
STRAND 1	DESIGNING	25			
STRAND 2	DRAWING	15			
STRAND 3	TOOLS	15			
STRAND 4	MATERIALS	15			
STRAND 5	PROCESSES	25			
STRAND 6	TECHNOLOGY	5			
TOTAL		100			