



Student Information Booklet

Name: _____

2023
Year 9 Materials Technology

General Information

This booklet has been provided for you to complete your technology work. You are to do the work on the pages provided and follow the guidelines laid out on the “design process” sheet. You will have to take your booklet with you to complete some of the work set out in the briefs for homework.

You must bring the booklet with you to Technology each week

Personal Safety

- You should remove all rings and watches when working in the workshop.
- You should roll sleeves up and tuck in any loose clothing.
- You must always wear safety glasses while working in the workshop.
- If you wear glasses you should still wear safety goggles while working at machines.
- You must wear ear protection when working on or around noisy machines in the workshop.

No running in the workshop at any time.

Machinery and Equipment Safety Precautions.

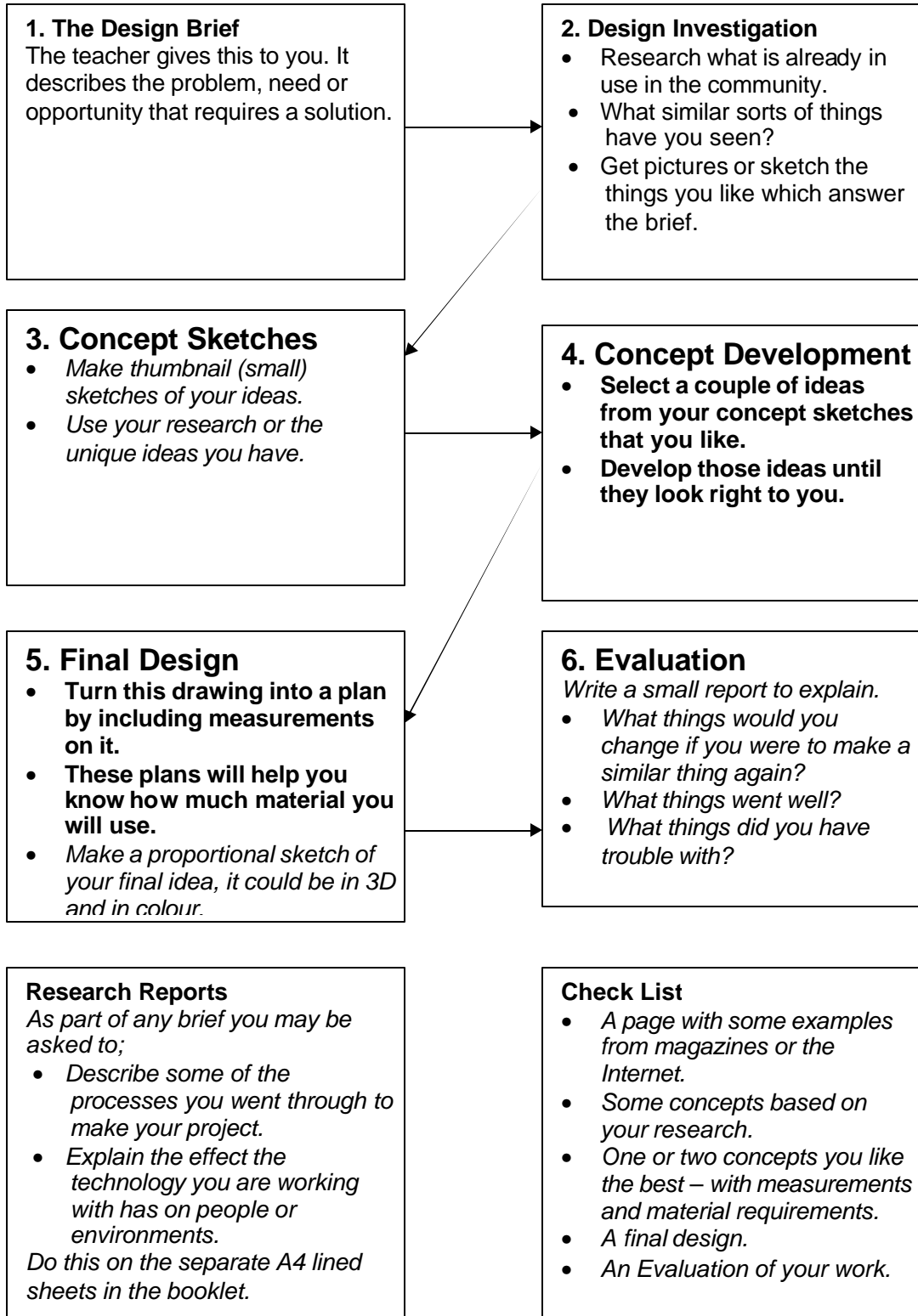
You must:

- Keep the working area free of oil, tools, waste materials or any other hazards.
- Do not brush waste material away from machinery beds with your hand.
- Do not allow any machines to run unattended.
- Never attempt to stop the rotating spindle of any machine with your hands.
- Do not start or operate any machines unless instructions have been given on its operation and safety procedures.
- Check all machinery guards are in place.
- Stop the machine before attempting to do any measurement, cleaning, oiling or adjustment.
- Never use rags near the moving part(s) of a machine.
- Get first aid immediately for any injury, no matter how minor it is.
- Always dispose of oily rags properly.
- Do not distract other students while they are using tools or machinery.

Check with your teacher if you have any doubts about operating any of the tools or machines in the workshop.

The Design Process

This sheet should help you prepare for work in Technology. The design process is central to any work in technology and if you follow these six steps you should not have any problems.





Background

Boxes for storing precious artefacts, souvenirs, personal letters or articles have existed for many centuries and in many cultures. Treasure chests have been the quest of adventurers and pirates alike. Memory boxes are sometimes used to store things, which remind us of someone who has passed away.

Brief

1. Design and construct a box for storing a particularly precious artefact, or set of -documents or just a couple of packs of cards. You can use pinus radiata and/or MDF (Customwood).
2. You must include a hinging mechanism.

The box must not exceed 300x210(id)

Materials

- 100x15 pinus radiata
- 4mm, 10 & 18mm MDF
- Hinges

Processes

Decide what your box will contain and develop what is called a **plan of action**. This shows in words or diagrams;

- the steps you will take to construct your box.
- the resources and materials you will need.
- the timing of the various steps necessary to construct your box.

You may use diagrams to explain the stages you go through if you wish.

Design

Considerations

- Make sure you have something specific to put into your box
- You may inlay, paint or carve a design on the lid.
- It may have a cultural theme, Japanese, Pacific Island, Maori, or American Indian or one of your own choice.



Some ideas may be found at.

http://www.wheesh.com/acatalog/Wheesh_Dressing_table_65.html

http://www.woodzone.co.nz/gift_range.htm

or use keywords, **jewellery or trinket wood box** in the search engine google.com and click the images tab for more visual ideas.



Keep your designs simple.

You should also check the library at school or in town and magazines if you are short of ideas.

Requirements

- Present a plan of action
- Present design sketches and notes to accompany your design work.
- Complete an evaluation of your project. (AO 6d)
- Complete the homework assignment

Presentation is an important part of design, make sure you present your work clearly and neatly.

Technology and Society

Present an assignment which explains;

- What sort of things do people regard as precious today and how do they differ from those of a couple of centuries ago?

<http://www.antiqueshowcase.ca/previous/boxes-nov00.html>

- How has technology influenced the way in which people store their personal treasures today?

<http://www.officesafesdirect.co.uk/homesecuritysafes.htm>

- Door locking systems in hotels and motels often use state of the art technology to provide extra security for their guests for hotels

<http://www.compart-online.com/eng/prod.htm>

http://www.sirio.gr/products_cardsystems_hotel.html

<http://www.timeloxpersona.com/>

<http://www.nexus.tm/pr1.html>

http://www.halaszsecurity.hu/termekek/e_nexus1.htm

explain how some of these systems work and the reasons they are used.

This is your homework.

Student Assessment

Name:

<p align="center">Grade Related Criteria</p>				
<p align="center">Sketch your final completed design here.</p>	<p>1. I don't know what the design process is.</p>	<p>2. I used the design process but its hard to see in my planning;</p>	<p>3. I used the design process to plan my project but the steps are not that clear, I know what I am doing but someone else might not be able to follow my planning;</p> <p>4. I used the design process to plan my work and the steps I followed are clear to see;</p>	<p>5. I used the design process to plan my work, You can easily see the steps I followed in my planning and I made some changes in my planning before I began making the project.</p>
<p>Application of the Design Process and Elements of Design You judge how well you think you used the design process to design and construct your box. (Tick One)</p>				
<p>Teachers Judgement</p>				

Project

Design work by:

Page No

Project

Design work by:

Page No

Developing a Plan of Action

A **plan of action** sets out how resources such as time, expertise, materials and finance will be used in a coherent and systematic manner during the development of a technological solution. It establishes key milestone outcomes (intermediate project accomplishment points which are usually also key decision points), and states how each of the resources is to be used to achieve the outcome at each milestone stages are met.

What this means is you must try and predict when and how you will do things as you construct your project based on the planning you do at the design stage. It is also a working document, which means it needs to be reviewed and refined as you go along. You should include all the resources, materials and equipment you will use used or considered using in the table provided. You should also try and establish **milestones** along the way. For example if you were constructing a house some milestones may be the foundation, the floor, the framing, the roof etc. You may use a digital photograph to record either what you did or as a milestone stage and insert it into the table.

At this introductory stage you may use the plan of action as a log of what you did during the unit.

Plan of Action

Week One

	Period
Action/Task	What are you going to do during the period of work?
Resources/Expertise	Do you have to have to do any research into how things are done or consult an expert?
Materials	Do you need any special tools or glue? Do you need to know how to construct a joint? What materials (timber, plastic, metal electronic component) do you have to have for this session?
Cost	If you are going to add something extra to your project you will have to purchase it. What will things cost?
Obstacles	What things may prevent you from achieving what you set out to do this session. Eg. A School trip, illness.
Strategies to overcome obstacles	What can you do to overcome the problems associated with the identified obstacle

Plan of Action: Project.....

Week One

	Period 1	Period 2	Period 3
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Week Two

	Period 4	Period 5	Period 6
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Week Three

	Period 1	Period 2	Period 3
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Week Four

	Period 4	Period 5	Period 6
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Week Five

	Period 1	Period 2	Period 3
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Week Six

	Period 4	Period 5	Period 6
Action/Task			
Resources Expertise			
Materials			
Cost			
Obstacles			
Strategies to overcome obstacles			

Project

Design work by:

Page No

Project

Design work by:

Page No

Y9 Technology unit evaluation - 2003

What part of the unit did you enjoy the most and why?

The research/design/construction/finishing?

What part of the unit would you have liked to spend more time on?

Did you understand the design brief?

Y	N
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Is your teacher fair and treat all students equally?

Y	N
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Does your teacher explain things you don't understand?

Y	N
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Did other students' behaviour disrupt your learning?

Y	N
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Is there anything the teacher could have done to manage the class so you could learn better?

Thank you for doing this evaluation. If you have any other comments you would like to make about the unit please add them below. If you would like to have worked on some other technology unit please indicate what you would have preferred to do
