



Preliminary Design and Technology Portfolio Guides

CREATIVITY
LOADING...

Design Thinking Portfolio Template:



Name: _____

EMPATHISE	<ul style="list-style-type: none"> • Background: <ul style="list-style-type: none"> - Who is your user? - What do they want? - What do they need? - When do they require it? • Possible solutions to this problem. This could be presented in the form of a brainstorm/ sketches/ photos.
DEFINE	<ul style="list-style-type: none"> • Design Brief: Identify your design brief. What is the problem that needs to be solved? • Constraints: Identify all known parameters for the project. Discuss how each element is a constraint and explain some processes you will put in place to manage these. Possible constraints include: <ul style="list-style-type: none"> - Time - Materials - Size - Skill level - Availability • Criteria for Success: Describe ALL functional and aesthetical criteria you wish your PSE to achieve upon completion. Be specific and ensure are realistic. Show analysis of each criteria by ranking them from most to least important. You also need to identify how you intend on evaluating/testing each criterion to prove its success. • Action Plan: This can be created as a flowchart to show how each action interacts with each other. Identifying the main actions will make it easier to allocate time to each of them. • Gantt Chart: This is a list/table of the anticipated dates of completion of each step. Allow for possible changes. Make it flexible. This should be evaluated as you proceed, explaining why it is or is not being kept. The best way to do this is to take the main actions and produce a Gantt chart, graphing actions against time. Don't forget to include dates such as holidays, exams and self-imposed deadlines such as "Management Plan to be finished".

	<ul style="list-style-type: none"> • Budget/Finance Plan: Set an estimated budget at the beginning of your project. Explain why you are setting this budget and how you will source the funds to finance with project. Provide a detailed list of all resources you may be using, estimating a cost for each. You should include a projected and final finance plan. Evaluating the changes that were made. • Areas of Investigation: Outline all the areas that you need to research. This should be detailed with all areas considered such as materials, tools, techniques, target market, skills, etc. • Ongoing Evaluation: Ensure that you have evaluated throughout this section. An easy way to do this is at the end of each section include a summary/reflection of what has occurred. Have you changed your idea? Are you on track according to your management plan?
IDEATE	<ul style="list-style-type: none"> • Evidence of Creativity <ul style="list-style-type: none"> - Exploration of existing ideas: Analyse existing ideas on the market. What is missing? - Ideas Generation – Include thumbnail sketches with annotations. - Design Development- Provide a range of initial and refined ideas that have been evaluated. These designs must show the progression of ideas. - Peer/ User feedback – Provide feedback on your design from peers/ industry experts or the intended user. • Factors affecting Design: List and describe each relevant factor and critically analyse how it will influence the decisions you make when designing. Factors could include: <ul style="list-style-type: none"> - Appropriateness of Solution - Needs - Function - Aesthetics - Ergonomics - Cost - Use of Design - Safety - Quality

	<ul style="list-style-type: none"> - Sustainability - Durability - Obsolescence <p>At the end of each factor, under the heading Application to the Project: identify how you have incorporated this factor into your design. Only choose the factors that are relevant to your project.</p> <ul style="list-style-type: none"> • Research: <p>Document all research undertaken. All areas that you have identified in your areas of investigation table now need to be researched. Each piece of research should include:</p> <ul style="list-style-type: none"> - Aim of Research (why the research is being conducted) - Method (How you are going to carry out the research) Include references here. - Results (samples, printouts, summaries, photocopies) - Application of Conclusions (in a different colour to make distinctive, what you have found out as a result of the research, how this has helped you with your project.) • Experimentation: <p>Document a range of relevant experimentation that shows you progress through your design ideas. Experiment with possible tools, techniques and show testing of prototypes. Set this out under headings Aim, Method, Results, Conclusion. Include your samples or photographs of your samples.</p> • Ongoing Evaluation: <p>Ensure that you have evaluated throughout this section. Explain what decisions you have made after completing this section.</p>
PROTOTYPE	<ul style="list-style-type: none"> • Production diary: <p>Step-by-step instructions on how you have completed your project. Include photos/diagrams and WHS procedures. You should highlight the range of skills you have learned. Highlight any difficulties that have occurred during the production process.</p>

TEST

- Testing of Prototype/final product:
Perform relevant testing on your product and gain feedback from user. This could be in the form of a written evaluation or survey/questionnaire.
- Record and application of evaluation procedures:
 - This outlines that you have critically evaluated all aspects of your PSE throughout the entire development of the project.
 - In this section keep an ongoing record of all processes and decisions you have made when constructing your project. All variations must be shown.
 - Evaluations should be recorded throughout your project. These evaluations can be written in another colour.
- Analysis and evaluation of functional and aesthetic aspects of design:
This section requires you to evaluate your design according to the two areas discussed in your criteria for success: Function and Aesthetics.
Use the criteria as a checklist and analyse and evaluate each point listed.
Critically evaluate both positive and negative aspects of your design. Be specific!
Indicate problem areas and possible future solutions. Be critical!
- Final evaluation with respect to the project's impact on the individual, society and the environment.
Critically analyses the impact this PSE has on individual, society and the environment.
 - Individuals: Focus on the target market. How does it affect them? Does it make life easier? Does it increase their quality of life? Does it increase their skills and knowledge?
 - Society: Has this PSE had impacted society positively or negatively? Are people safer because of the PSE? Does it provide happiness/ increased productivity? Has the PSE increased social awareness on a topic or concept?
 - Environment: Analyse the PSE' ecological footprint. List the renewable/non-renewable resources used. Complete a life-cycle analysis on your PSE. Could it be better used in the environment for which it was designed?

- Relationship of the final product, system or environment to the project proposal.

In this section, you are giving an overall evaluation of the finished project in relation to the project proposal

You need to answer the following questions:

- Did I do what I said I was going to do in my proposal?
Identify why or why not? Discuss how effective you were in meeting the needs you set out in the Proposal.
- Did I do a good job on my PSE? Identify your areas of strength and weakness in completing the project and folio.
Identify possible improvements that could be made to the project and the process.

Name: _____

Year 11 Design &
Technology

Illuminate Design Portfolio Booklet



Year 11 Design & Technology

This booklet contains all the sections that you need to complete your portfolio. Follow each section carefully to ensure you complete all requirements for your assessment task.

POINTS TO REMEMBER:

FOLIO PARAMETERS

- The folio should be presented in an A3 folder.
- You must word process your portfolio. Sketches and annotations can be handwritten.
- A clear and easily read font equivalent in size to 12-point Times New Roman should be used for text.
- Folio pages should be numbered.
- Include a contents page using the headings and sub-headings outlined in this booklet.
- Do not over clutter your pages, leave plenty of white space.
- Use a range of communication techniques such as words, graphs, diagrams, tables, pictures, photos etc.
- Ensure your portfolio is visually pleasing as well as content enriched.

1. PROJECT PROPOSAL:

1.1 IDENTIFICATION AND EXPLORATION OF THE NEED:

- ☐ Explain what you are producing
- ☐ Why are you producing this product/ system/ environment
- ☐ Who will be using the product/ system/ environment
- ☐ How will it be used product/ system/ environment

1.2 DESIGN BRIEF:

- ☐ As stated in the assessment task

1.3 LIMITATIONS:

Identify the parameters/ limitations of your design. These may include:

- ☐ Time
- ☐ Materials
- ☐ Size
- ☐ Skill level
- ☐ Availability

1.4 AREAS OF INVESTIGATION:

- ☐ State what is to be investigated and how it will be investigated. The best way to do this is in the form of a table:

Areas of Investigation	Method of Investigation	Reason for Investigation (relationship to the brief)

1.5 CRITERIA TO EVALUATE SUCCESS:

- ☐ State what the PSE will have to do to make it successful. You can do this by making a list of Functional and Aesthetic characteristics your design should possess. This section becomes a checklist to be used for evaluation.
- ☐ State which qualities are the most important and which are the least important.
- ☐ State how you are going to determine whether the completed project has been successful.

2. PROJECT MANAGEMENT:

In this section of the portfolio, you must explain how you are going to organise your project. This section is an ongoing documentation of how you manage the MDP.

2.1 ACTION PLAN:

This is a list or table of steps you plan to follow to complete your project. This is a forward-thinking plan explaining what needs to be done. This can be set out in the following way:

Action	Completed by:	Variation and reason
Completion of Project Proposal	15/3/06	19/3/06 Was unable to finalise my ideas.

2.2 TIME PLAN:

- ☐ This is a list/table of the anticipated dates of completion of each step mentioned in the action plan including exams, holidays, and assessments.
- ☐ Allow for possible changes. Make it flexible.
- ☐ An actual timeline should be constructed as you proceed through the sections. This should be **evaluated** as you proceed, explaining why it is or is not being kept.
- ☐ The best way to do this is to take the main actions and produce a Gantt chart, graphing actions against time.
- ☐ Don't forget to include dates such as holidays, exams and self-imposed deadlines such as "Management Plan to be finished".

3. PROJECT DEVELOPMENT:

This section is worth the greatest percentage of marks, thus it needs to be clear, concise and logical. You will need to demonstrate the use of several cognitive organisers and you may use flow charts, concept maps, sketches, photographs, written procedures, interviews, written information.

3.1 EVIDENCE OF CREATIVITY:

- ☐ Ideas generation: Include your evidence of generating ideas. Use different cognitive organisers to assist in this process.
- ☐ Complete ONE page of Concepts sketches that are annotated.
- ☐ Exploring Existing Ideas: Present documentation of existing similar products. Collect brochures, advertisements, sketches that are annotated and evaluated. Using PMI is a good way to evaluate this.

3.2 CONSIDERATION OF DESIGN FACTORS RELEVANT TO THE MAJOR DESIGN PROJECT:

- ☐ List and describe each relevant factor and critically analyse how it will influence the decisions you make when designing. Factors could include Appropriateness of Solution, Needs, Function, Aesthetics, Ergonomics, Cost, Use of Design, Safety, Quality, Sustainability, Durability, and Obsolescence. At the end of each factor, put the heading *Application to the Project*: identify how you have incorporated this factor into your design.

3.3 RESEARCH:

- ☐ Document all research undertaken. All areas that you have identified in your areas of investigation table now need to be researched. Each piece of research should include:

Aim of Research (why the research is being conducted)

Method (How you are going to carry out the research)

Results (samples, printouts, summaries, photocopies)

Application of Conclusions (in a different colour to make distinctive, what you have found out as a result of the research, how this has helped you with your project.)

4. PROJECT REALISATION

4.1 PRODUCTION PLAN

Record your step by step instructions for the production of your project.

Step	Description	Materials used	Safety procedures

5. EVALUATION

5.1 RECORD AND APPLICATION OF EVALUATION PROCEDURES THROUGHOUT THE DESIGN PROJECT

- ☐ This outlines that you have critically evaluated all aspects of your PSE throughout the entire development of the project.
- ☐ In this section keep an ongoing record of all processes and decisions you have made when constructing your project. All variations must be shown. Evaluations should be recorded throughout your project. These evaluations can be written in another colour.

Variation in design /production	Page number	Summary of action taken

5.2 ANALYSIS AND EVALUATION OF FUNCTIONAL AND AESTHETIC ASPECTS OF DESIGN:

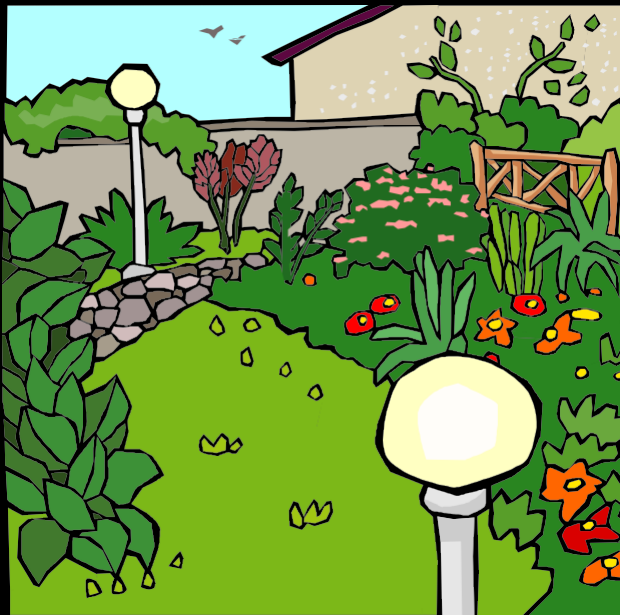
- ☐ This section requires you to evaluate your design according to the two areas discussed in your criteria for success: Function and Aesthetics.
- ☐ Use the criteria as a checklist and analyse and evaluate each point listed.
- ☐ Critically evaluate both positive and negative aspects of your design.
 - Be specific!
 - Indicate problem areas and possible future solutions. Be critical!

5.4 RELATIONSHIP OF THE FINAL PRODUCT, SYSTEM OR ENVIRONMENT TO THE PROJECT PROPOSAL:

- ☐ In this section, you are giving an overall evaluation of the finished project in relation to the project proposal
- ☐ You need to answer the following questions:
 1. Did I do what I said I was going to do in my proposal? Identify why or why not? Discuss how effective you were in meeting the needs you set out in the Proposal.
 2. Did I do a good job on my PSE? Identify your areas of strength and weakness in completing the project and folio. Identify possible improvements that could be made to the project and the process.

COLLABORATIVE LANDSCAPES

NAME: _____



This booklet contains all the sections that you need to complete your portfolio. Follow each section carefully to ensure you complete all requirements for your assessment task.

Points to remember:

Folio parameters

- The folio will be limited to 80 written A4 pages OR 40 written A3 pages printed on ONE side only. Note that the page limit includes the title page, index, bibliography, design ideas, concept sketches and detailed drawings, as well as information presented on displays or noticeboards.
- The folio should be presented in an A4 or A3 folder.
- You must word process your portfolio.
- Sketches and annotations can be handwritten.
- A clear and easily read font equivalent in size to 12-point Times New Roman should be used for text.
- Folio pages should be numbered.
- Include a contents page using the headings and sub-headings outlined in this booklet.
- Do not over clutter your pages, leave plenty of white space.
- Use a range of communication techniques such as words, graphs, diagrams, tables, pictures, photos etc.
- Ensure your portfolio is visually pleasing as well as content enriched.

1. PROJECT PROPOSAL:

1.1 Identification and Exploration of the need:

- Explain what you are producing
- Why are you producing this product
- Who will be using the product
- How will it be used

1.2 Design Brief:

- As stated in the assessment task

1.3 Limitations:

- Identify the parameters/ limitations of your design. These may include time, materials, size, skill level, availability.

1.4 Areas of Investigation:

- State what is to be investigated and how it will be investigated. The best way to do this is in a table form.

Areas of Investigation	Method of Investigation	Reason for Investigation (relationship to the brief)

1.5 Criteria to evaluate success:

- State what the product will have to do to make it successful, you can do this by making a list of Functional and Aesthetical characteristics your design should possess. This section becomes a checklist to be used for evaluation.
- State which qualities are the most important and which are the least important.
- State how you are going to determine whether the completed project has been successful.

2. PROJECT MANAGEMENT:

In this section of the portfolio, you must explain how you are going to organise your project. This section is an ongoing documentation of how you manage the MDP.

2.1 Action Plan:

- This is a list or table of steps you plan to follow to complete your project. This is a forward-thinking plan explaining what needs to be done. This can be set out in the following way:

Action	Completed by:	Variation and reason
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2.2 Time Plan:

- This is a list/table of the anticipated dates of completion of each step mentioned in the action plan including exams, holidays, assessments.
- Allow for possible changes, make it flexible.
- An actual timeline should be constructed as you proceed through the sections. This should be **evaluated** as you proceed, explaining why it is or is not being met.
- The best way to do this is to take the main actions and produce a Gantt Chart, graphing actions against time.
- Don't forget to include dates such as holidays, exams and self-imposed deadlines such as "Management Plan to be finished".

3.1 Research:

Document all research undertaken. All areas you said you were going to investigate in (Areas of Investigation) now need to be investigated.

- Design Ideas: Each piece of research should include:

Aim of Research (why the research is being conducted)

Method (How you are going to carry out the research)

Results (samples, printouts, summaries, photocopies)

Analysis of Research (highlighting, annotations, graphing results, Summaries)

Application of Conclusions (in a different colour to make distinctive, what you have found out as a result of the research, how has this helped you with your project.)

3.2 Initial Ideas:

Each team member is to present TWO initial ideas to the group detailing the layout of the garden. This is to be rendered and labelled. Each idea is to include an itemised costing.

5. EVALUATION:

5.1 Record and Application of Evaluation Procedures throughout the Design Project

- This outlines that you have critically evaluated all aspects of your PSE throughout the entire development of the project.
- In this section describe the method you used to document Evaluations and Applications to Conclusions throughout the folio. E.g.: Evaluations are written on different coloured paper
- Make a list of all the times you made an evaluation identifying what you have evaluated, giving a page number for each.

5.2 Analysis and Evaluation of Functional and Aesthetic Aspects of Design:

- This section requires you to evaluate your design according to the two areas discussed in your criteria for success: Function and Aesthetics.
- Use the criteria as a checklist and analyse and evaluate each point listed.
- Critically evaluate both positive and negative aspects of your design.
- Be specific!
- Indicate problem areas and possible future solutions. Be critical!

5.3 Relationship of the Final Product, System or Environment to the Project Proposal:

- In this section, you are giving an overall evaluation of the finished project in relation to the project proposal
- You need to answer two questions:
 1. Did I do what I said I was going to do in my proposal? Identifying why or why not? Discuss how effective you were in meeting the needs you set out in the Proposal.
 2. Did I do a good job on my PSE? Identify your areas of strength and weakness in completing the project and folio. Identify possible improvements that could be made to the project and the process.

Remember you are evaluating not only the project but also the process!!!