

designTECH

11 June- 24 July 2011

WESTERN PLAINS CULTURAL CENTRE



SECONDARY EDUCATION RESOURCE

Yrs 11 and 12

INTRODUCTION

DesignTech is an exhibition of outstanding major design projects from Higher School Certificate Design and Technology students. This annual exhibition, coordinated by the Board of Studies NSW and supported by the NSW Department of Education and Communities, opens a window for us to view the creativity, innovation, and achievement of NSW Higher School Certificate Design and Technology students.

The Design and Technology course asks students to select and apply design, production and evaluation skills to satisfy an identified need or opportunity. Designs may be a product, system or environment. Works are nominated for **DesignTech** during the practical examination marking period. Each project is displayed with its accompanying portfolio which documents the design process followed by the students from the identification of need to the final realisation.

On display are a diverse range of creations, from fashion, furniture and water sports, to learner driver aids and children's education.

This Education Resource aims to encourage students who visit the exhibition to engage with the works on display in a critical manner, using the steps of the design process to reflect on the achievements of the individual designers. In addition, it works to assist students with their own Design and Technology studies and future design projects.

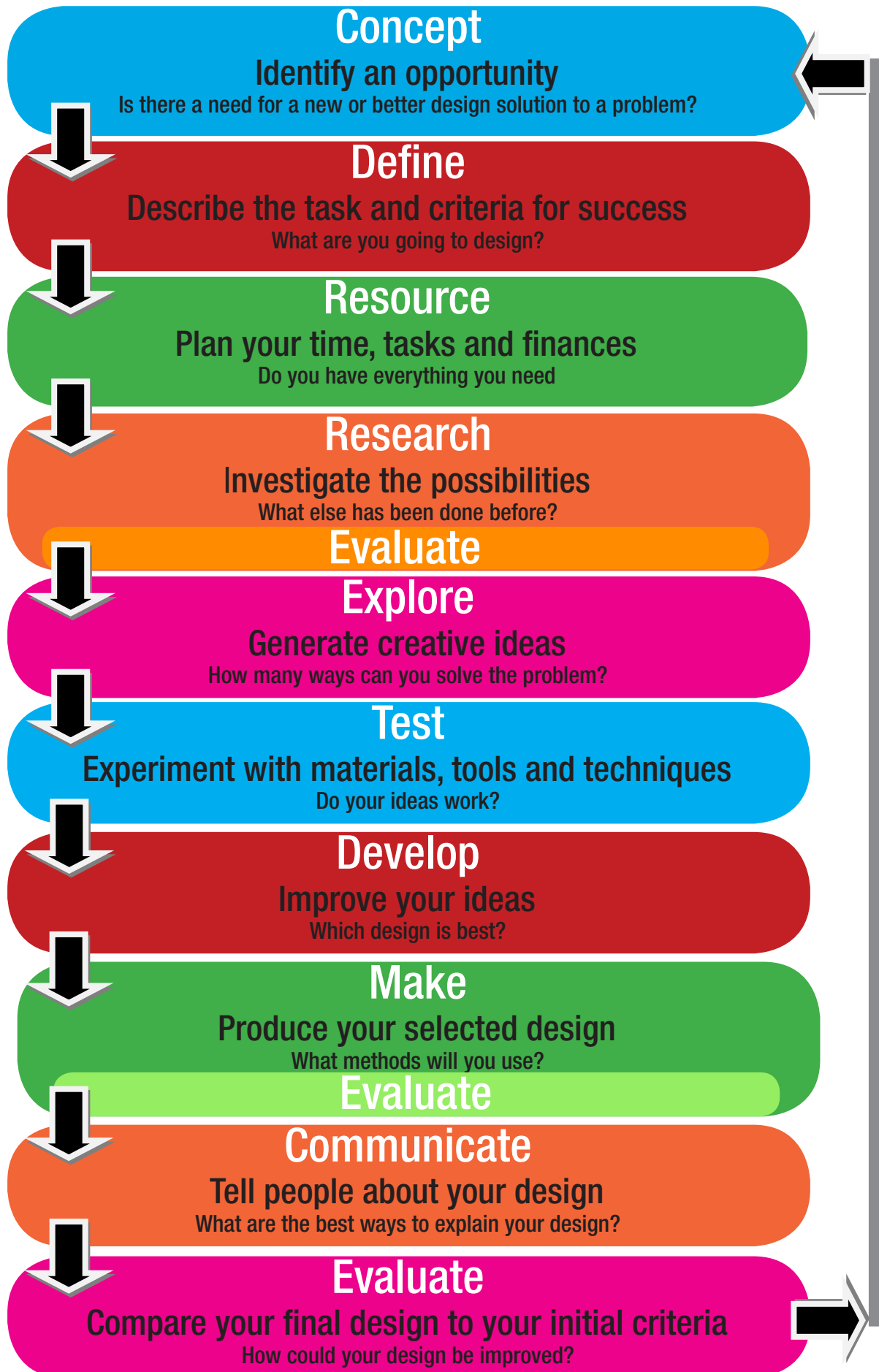
'The products are durable yet lightweight due to the quality materials and construction techniques used, not disposable like other products in the industry.'

Curriculum Links: Stage 6 Design and Technology

Erica Sheath
DesignTECH 2010



THE DESIGN PROCESS



STUDENT ANALYSIS

Select a Major Design Project which, in your opinion, reflects the strongest design in the exhibition. Complete the following in response to the work and its related portfolio.

Major Design Project 1:

Record the name of the work and designer _____

Create a sketch of the work and/or briefly describe the work in the space below.

Refer to the stages in the Design Process as you consider the questions outlined below:

What need or market opportunity was identified?

How pressing or authentic do you consider this need to be? (Is this an issue now or is it likely to be an issue in the near future? How many people will benefit from the resulting solution?)

Can you think of any existing design solutions for the need identified in this Major Design Project?

What criteria did the student establish to evaluate the success of the project?

What do you consider to be the most innovative features of this work in addressing this need?



'I learned the importance of adequate planning and time management, and developed my skills of working independently, showing trust in myself and my decisions.'



Make your own assessment of the work in terms of the following Criteria for Success:

Environmental suitability: Is it suitable for the environment in which it will be used? Explain your answer.

Aesthetic appeal: Is the physical appearance pleasing? Does this matter? Explain.

Functionality and Ergonomics: Is it user friendly? Explain your answer.

Safety: How much risk is involved in using the design? Explain your answer.

'Working with challenging materials required creative experimentation as well as instances of trial and error.'

Kara Adolfson
DesignTECH 2010

Technology: Does it make effective use of available and new technologies? Explain your answer

Obsolescence: Will this design become obsolete quickly or is there significant longevity in the design?

Quality: Has it been made from quality materials with quality processes and a quality finish?

Consider the **materials, tools and techniques** used in the production process. Were these the most efficient in terms of time, cost effectiveness and sustainable use of resources? Do the benefits outweigh the costs in relation to time, finances and the environment?

Overall, how well do you think the final design works to satisfy the identified need?

Examine the portfolio for this Major Design Project and respond to the following questions:

Reflect on the alternative ideas that this student developed in considering a design solution for their identified need. Do you think any of these alternatives may have been more successful? Why? Why not? Can you think of any alternative solution/s for the identified problem that may be more effective than that displayed in this project?

What forms of communication have been used by this designer? Have they been effective? Why? Why not?

What is it about this Major Design Project that appealed to you? (Consider aspects such as problem resolution, aesthetics, technical proficiency demonstrated, portfolio details and presentation etc)

What aspects of the design do you believe led it to be chosen for the DesignTech exhibition?

Finally, consider all of the works in the exhibition. Why have these works been identified as exemplary? Are you able to identify one or more defining qualities or components that stand out consistently across each of the Major Design Projects?



'The production process was long and challenging, however I emerged with a valuable knowledge of software capabilities and functions, as well as confidence in my abilities.'

DESIGNER'S NOTES

Use this page to make notes on aspects of the Major Design Projects that may assist you in the development of current and future design projects of your own.

You may consider making notes on: ways of representing ideas- sketching, story-boarding, drawing, modelling, flow charts, diagrams; technologies/materials/processes that have been successful/unsuccessful; forms of communication and varieties of media- which have an impact? which do not?; design considerations- are you using environmentally sustainable processes?; presentation of portfolios to accompany your work etc.

'Managing resources, networking with people in industry and applying constructive criticism has allowed me to develop important skills to create a successful product.'

Stuart Johnson
DesignTECH 2010

