

Desirable features

High-quality performance is evidenced by:

- faithful interpretation of client needs via comprehensive and well-organised job specifications.
- cogent rationalisation in a design brief of environmental sustainability, aesthetic appeal, cultural appropriateness, financial viability and social significance, via the discourse of architecture.
- vivid ideation in conceptualising a structure for a selected site.

Acceptable performance (successful task completion) is evidenced by:

- a non-trivial brief reflecting dialogue with a client.
- information that considers aspects of a design brief and the physical situation.
- contribution to group work in improving an original design, supplying a sketch or model and attempting to identify costs.

YEARS 7-9

TASK

#

3



The Built Environment: Designing a Structure

New Basics referents

Life pathways and social futures

- Collaborating with peers and others

Multiliteracies and communications media

- Mastering literacy and numeracy

Active citizenship

- Interacting within local ... communities
- Operating within shifting cultural identities

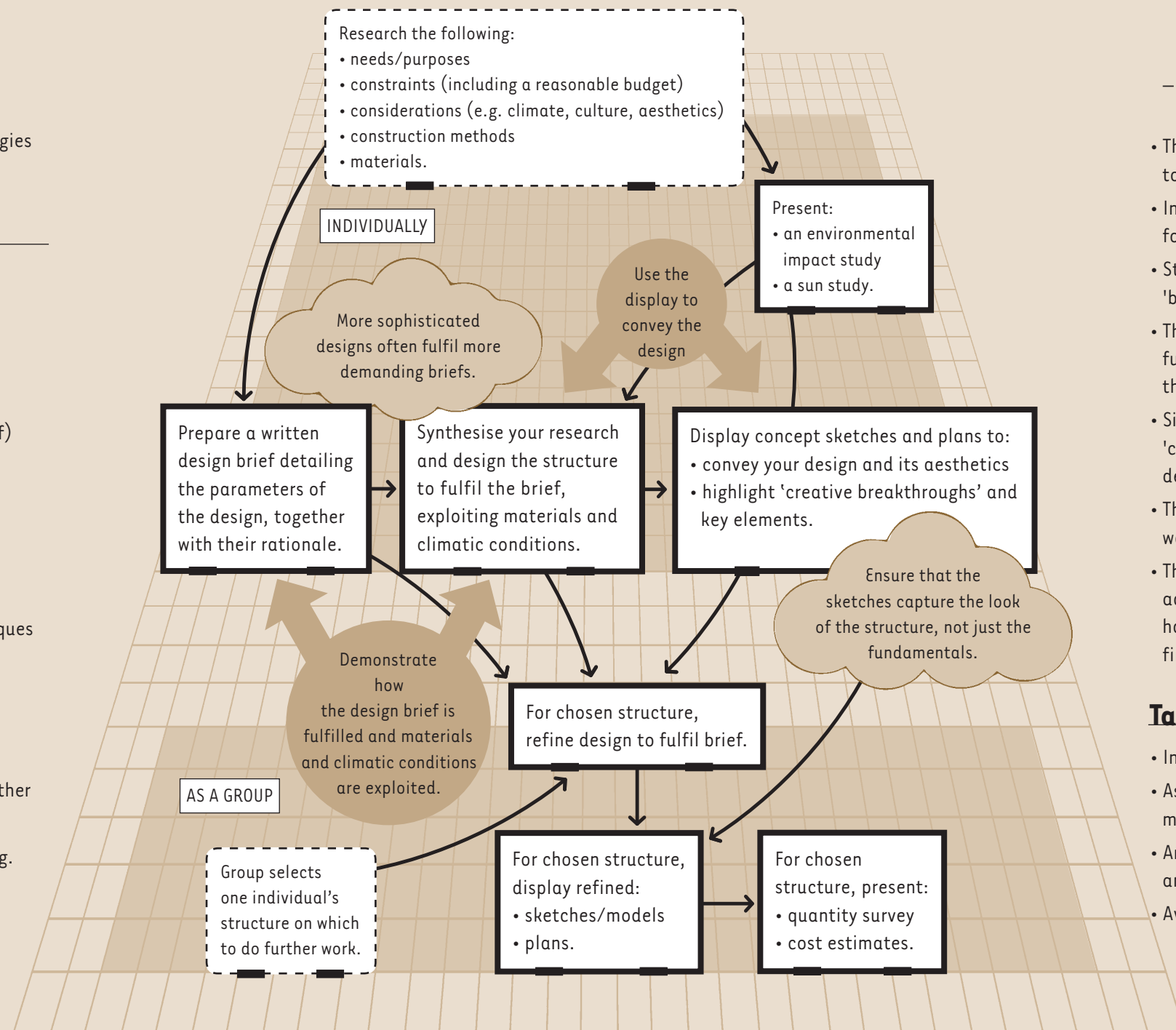
Environments and technologies

- Working with design and engineering technologies
- Building and sustaining environments

Targeted repertoires of practice

- Analysing client needs
- Applying the techniques and procedures of financial mathematics to costing
- Appreciating the imperative of environmental sustainability
- Composing extended written text (design brief)
- Estimating quantities
- Explaining the cultural and aesthetic appropriateness of a structure
- Giving acknowledgment to the ideas of others
- Justifying design decisions
- Knowing and utilising conventions and techniques of graphical communication of a building
- Measuring
- Negotiating in a group
- Scale drawing
- Translating information from one form to another
- Understanding and using a design process
- Understanding basic engineering concepts, e.g. strength of materials, balancing forces
- Understanding the effect of the seasons climate/weather, night/day, light/shade on living conditions
- Utilising the language of architectural form and style
- Visualising

Students will identify a client's needs and take these and other factors into account in preparing a design brief for a structure. They will design an environmentally sensitive and aesthetic structure to fulfil this brief and communicate the design through sketches, plans and models. They will give due consideration to structure and materials, quantities and costs.



© The State of Queensland (Department of Education) 2004

Ideas, hints and comments

- The term *structure* is used in a wide sense and could include the following:
 - a community facility (e.g. recreation hall, amenities block for a swimming centre)
 - private dwellings with a specific need (e.g. retirement unit block, residence and rooms for a local doctor)
 - other structures (e.g. shade structures and seating for a street mall, a park kiosk).
- The structure must have sufficient complexity to allow the various demonstrations.
- In arriving at a design, students might consider form, function and cultural significance.
- Students might find it easier to first work on the 'big picture' and then on the detail.
- The demonstration of how the design brief is fulfilled might best be done as annotations on the brief or the display.
- Similarly, students might use annotations to show 'creative breakthroughs' and key elements of the design.
- The selection of the design on which to do further work could be made by someone not in the group.
- There is no need for students to compare the advantages of their design over others they might have considered along the way. Stick to what the final design accomplishes!

Task parameters

- Intensity: high
- As per the task specs, some aspects of the task must be done individually, some in groups.
- An actual site must be identified, described and considered in the design of the structure.
- Available grades: 5