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# DESIGN STUDIES

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## B. STRAND RATIONALE AND PHILOSOPHY

Design is an integral part of our society. It permeates every facet of civilization, sometimes in complex ways, many times quite simply. Everyone designs every day. Design brings a sense of order to our world. Young children in play design physical structures, visual images and systems of organization. Professional designers create these and many other things. Signs, displays, packages, road systems, computer games, furniture, automobiles, clothing, banquets, houses and highrises are a few examples of work produced by professional designers.

Students may not become professional designers, but they still engage in design in some way. Design Studies, a strand in Career and Technology Studies, helps students become aware of design in their environment, engages them in designing, and shows them how design processes may be used in many contexts. Being aware of and appreciating the importance of design helps students become effective members of society.

Design can be described as a “creative problem-solving process, which begins with identifying a specific human need and results, ideally, in a product or situation that improves or enhances some aspect of our lives.”★ Design can be both a noun and a verb. As a noun, design can describe a condition, as in the statement “. . . your design

shows creativity.” As a verb, design suggests a process or problem-solving activity, as in the statement “. . . I need to design a container to carry water.” Design Studies students work primarily in the context of design as a verb.

All students are expected to develop problem-solving skills through their school experience. Design Studies deals specifically with solving problems in a variety of contexts, and is limited only by facility or imagination. Design Studies students may be expected to solve visual problems, structural problems and organizational problems using the context of their environment, their other classes and their community experiences. This ability to solve problems will be applied by Design Studies students to situations in their daily lives, in their workplace activities and in post-secondary studies. The theoretical and practical learning of processes, tools and technologies used during Design Studies is relevant, because the learning occurs in context.

There are many reasons for students to engage in Design Studies. For example, students may wish to:

- develop and apply creative abilities and aesthetic awareness
- develop investigative and research skills

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★ Definition taken from *What Is Design?* Edmonton, AB: Alberta Culture and Multiculturalism.

- develop problem-solving abilities
- develop the ability to select an appropriate medium, model a solution and effectively communicate the solution to others
- recognize the importance of design in the human environment, and its impact upon the natural environment
- appreciate the relationship between aesthetics, function, materials and processes
- become aware of the many factors that have to be taken into account in order to achieve appropriate and effective design solutions
- use appropriate technology to arrive at design solutions
- create innovative approaches, products and systems
- recognize significant historical events in design, and describe how they have influenced subsequent design developments
- be better able to pursue a design career.

Design may be studied in its own right or it may be incorporated into other curricula. Key features of Design Studies and other design-based programs are to:

- encourage and facilitate students to be creative, innovative and curious
- teach students to identify and solve many different kinds of design challenges
- incorporate student-directed learning
- teach teamwork strategies and skills
- apply theory within a context
- use technology appropriately and effectively
- teach safe and effective work practices
- appreciate appropriate attitudes, such as pursuing and valuing quality, ethics, professionalism, attention to detail and perseverance and understanding the discipline of design
- encourage cross-curricular links

- reach beyond the school to the community, to create links, projects and contacts with designers, local groups, professionals and businesses.

Within the philosophy of Career and Technology Studies, *students* in Design Studies *will*:

- demonstrate creativity and innovation
- demonstrate aesthetic awareness
- use historical research as one basis for design activity
- identify and solve problems
- work in two and three dimensions
- work individually and as members of a team
- recognize the value of technology, and use it appropriately and effectively
- demonstrate and practise safe and effective work habits and attitudes
- develop and apply personal and interpersonal, verbal and nonverbal communication and presentation skills
- develop the ability to recognize, appreciate and create appropriate design solutions
- appreciate that designers may confront ethical, legal and moral issues in their work
- appreciate that design has an impact upon the environment
- develop a working knowledge of tools, materials and processes associated with specific tasks
- develop and maintain a design journal
- develop and maintain a portfolio of design solutions.

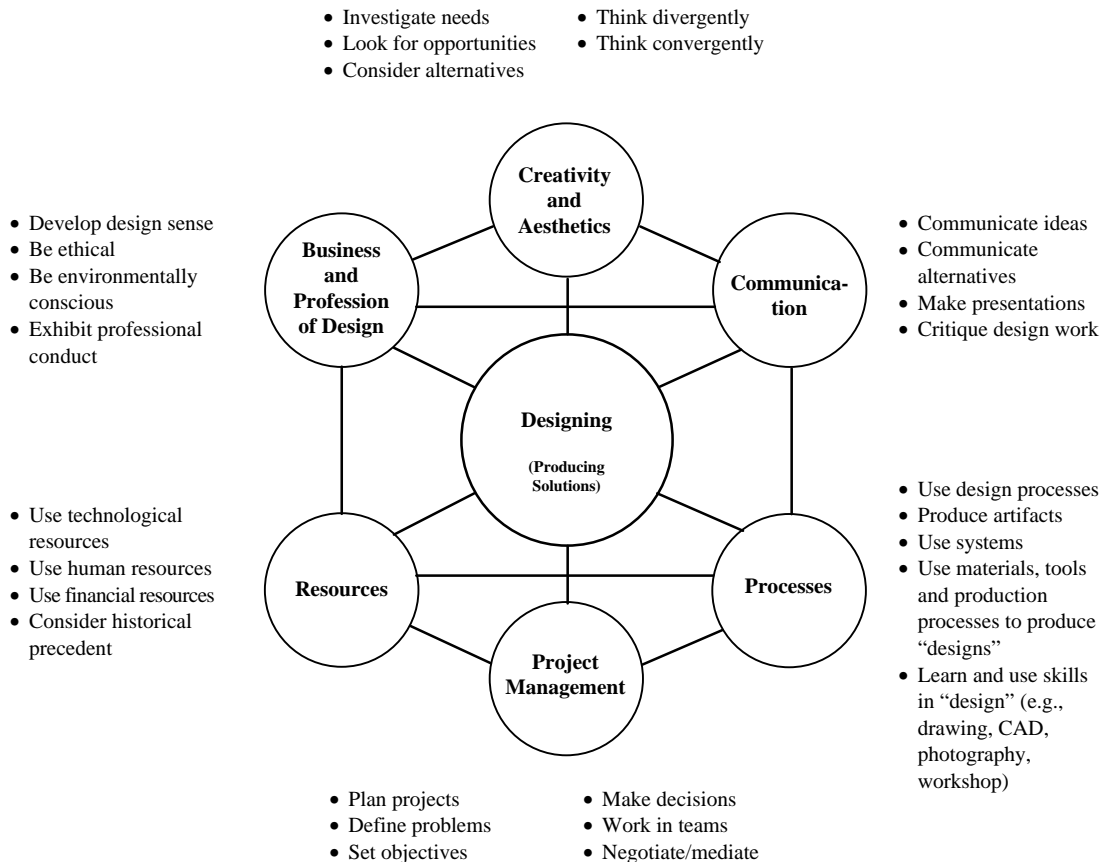
## STRAND ORGANIZATION

Design and Design Studies centre around the activity of problem solving within constraints. Design is complex, requiring the designer to simultaneously bring together numerous bits of knowledge, various processes and a variety of skills, and to use them together to address the task at hand. Design Studies focuses on six major areas:

- communication
- project management
- business and profession of design.

The illustration below shows how these components interrelate.

- creativity and aesthetics
- processes
- resources



## **THEMES**

Modules in Design Studies are divided into three themes. Each theme is based on commonalities within the topics covered by the modules within the themes. While these are convenient groupings, they should not be seen as exclusive, because the modules from all themes complement each other. The three Design Studies themes are:

- design skills, processes and applications
- drafting for design and technical drawing skills
- business/issues/history.

## **CONCEPTS**

There are four common concept areas dealt with in Design Studies. Some are found in all modules while others relate most appropriately to specific modules. For example, design skills are more relevant in skills-based modules. The elements and principles of design and applied problem solving are emphasized in process-based modules. The need to present work and/or information and maintain a design journal and portfolio is required in all modules.

The four concepts in Design Studies are:

- skills development
- elements and principles of design
- applied problem solving
- presentation, design journal and portfolio.