BAA Creative Wood Design 11

District Name: Co quit lam

District Number: SD #43

Developed by: GeoffManson

Date Developed: March 2004

School Name: Port Moody Secondary

Principal's Name: Karen Jensen

Board/Authority Approval Date: April 20, 2004

Board/Authority Signature:

Course Name: Creative Wood Design

Grade Level of Course: 11

Number of Course Credits: 4

Number of Hours of Instruction:

120

Prerequisite(s): None (although prior experiences may enhance project satisfaction)

Special Training, Facilities or Equipment Required: All equipment and materials currently exist. No extra training required

Course Synopsis: This course has been developed to support and encourage students to explore wood as a creative art medium, as a viable source for future employment and/or enjoying woodworking as a recreational activity. Students will learn how to correctly identify and safely use various hand tools, portable and stationary machines as they build theme based, self designed projects. Students will also learn the richness and diversity of First Nation's aboriginal art as well as other cultures that use wood as an artistic medium. Learning outcomes are grouped under the curriculum organizers: Health and Safety, Image- Development and Design Strategies,

Materials and Processes, Tools and Equipment and Assessments. It is expected that students will produce two or three projects (one of which will be a major project). These projects will form the basis upon which student learning will be assessed. The comprehensive nature of the project allows the students to experience a sense of accomplishment and to demonstrate skills

Rationale: Creative Wood Design is an opportunity for students who have little previous knowledge of wood the ability to develop basic skills in construction and design and to explore wood as a creative medium. Students who have experience in wood related courses would use this course to expand the design component of their work. The goals of this course are to:

- 1) Develop basic skills in woodworking and construction
- 2) Allow students to experience wood as a creative medium
- 3) Develop an appreciation of the cultural/ historical aspects of wood construction, architecture, art and furnishings.

The Technology Education Department recognizes that academic requirements to enter post secondary institutions may preclude students from enrolling in certain technology courses. This course intends to provide an opportunity for those students who do so.

Organizational Structure:

Unit/Topic	Title	Time
Unit 1	Introduction to Wood shop	15
Unit 2	Basic Skill Development	25
Unit 3	Intermediate Skill Development	30
Unit 4	Final Project	40
Unit 5	Maintaining the Work Space	10
Total Hours		120

Unit Descriptions:

Unit 1: Introduction to Wood shop

15 hours

Students will become familiar with the uniqueness of the wood shop as they participate in general health and safety issues. Students will continue to familiarize themselves with various tools and machines as they safely set up and adjust the equipment as needed. This unit will be an ongoing one throughout the year as students will learn and be taught on a "need to know" basis.

Curriculum Organizer: Health & Safety

It is expected that students will:

- identify Workers' Compensation Board and WHMIS regulations that apply to a carpentry and joinery work environment
- describe safety and accident prevention procedures for a carpentry and joinery work environment
- demonstrate use of safe work practices

Curriculum Organizer: Materials & Processes

It is expected that students will:

- identify and select wood species
- identify, describe and use abrasives
- identify, describe and apply common adhesives

Curriculum Organizer: Tools & Equipment

It is expected that students will:

- identify and use basic hand tools used in a wood shop
- · identify and use basic machines used in a wood shop

Curriculum Organizer: Assessment

It is expected that students will:

• demonstrate use of appropriate vocabulary when discussing processes

Unit 2:Basic Skill Development

25 hours

Students will now begin to use the earlier unit and prior knowledge to develop a theme based project using these basic tools and machines. These projects will be done individually although students may want to partner up to help build confidence within and around the wood shop. Due to machine limitations (too many students compared to too few machines) there should be at least two different projects that use different basic tools.

Curriculum Organizer: Health & Safety

It is expected that students will:

- demonstrate the use of safe work practices
- · describe safe work practices with scroll saw, band saw, drill press and stationary sanders
- · describe safe work practices with hand tools

Curriculum Organizer: Image- Development and Design Strategies

It is expected that students will:

· design and create an appropriate project that meets the theme-based criteria

Curriculum Organizer: Materials & Processes

It is expected that students will:

• choose and apply proper materials for project completion

Curriculum Organizer: Tools & Equipment

It is expected that students will:

· choose and safely use appropriate machine or tool for project

Curriculum Organizer: Assessment

It is expected that students will:

• identify areas of success and areas to improve

Unit 3:Interniediate Skill Development

30 hours

As students build confidence using basic tools and machines they will be introduced to more traditional woodworking machines and processes. These projects are made usually with less emphasis on the creative and more on the accurate "set-up" and safe procedures required using the various machines. There is a limited creative aspect in this juncture of the course. The emphasis at this point is more on the journey than the destination.

Curriculum Organizer: Health & Safety

It is expected that students will:

- demonstrate the use of safe work practices with each machine
- describe safe work practices with radial arm saw, table saw, jointer, thickness planer and mitre saw

Curriculum Organizer: Materials & Processes

It is expected that students will:

• choose and use proper materials to complete intermediate project

Curriculum Organizer: Tools & Equipment

It is expected that students will:

- demonstrate proper procedures when setting up machines
- correctly use each machine
- accurately machine the wood to a specific dimension

Curriculum Organizer: Assessment

It is expected that students will:

• identify areas of strengths and weaknesses regarding their machining skills

Unit 4:Final Project

40 hours

Using the experiences they have been introduced to, students will now create the theme based final project. This project should be a major commitment in both time and work ethic. The project should reflect the prior skills and knowledge achieved throughout the year as well as build new skills and improve understanding of wood working and designing. The project theme should allow enough flexibility where no two projects would be similar, yet still use the prescribed wood machines and tools in a similar fashion.

Curriculum Organizer: Health & Safety

It is expected that students will:

- · demonstrate the use of safe work practices
- display safe work practices with ALL machines needed to create project
- display safe work practices with hand tools

Curriculum Organizer: Image- Development and Design Strategies

It is expected that students will:

• design and create an appropriate project that meets the theme-based criteria

Curriculum Organizer: Materials & Processes

It is expected that students will:

• choose and apply proper materials for project completion

Curriculum Organizer: Tools & Equipment

It is expected that students will:

· choose and safely use appropriate machine or tool for project

Curriculum Organizer: Assessment

It is expected that students will:

- · identify areas of success and areas in need of improvement on own project
- evaluate peer work and make creative suggestions or constructive criticism

Unit 5: Maintaining the Work Space

10 hours

This unit is where students will learn "job ready" transferable skills, how to maintain their own future shops and/or purchase appropriate materials and tools needed to complete those jobs around the house. This unit will be ongoing throughout the school year rather than a 2-week lesson.

Curriculum Organizer: Health & Safety

It is expected that students will:

- identiiy dangers found on the job site
- identify dangerous materials found within the workspace and home
- remove any dangerous tools or equipment

Curriculum Organizer: Materials & Processes

It is expected that students will:

· acquire or purchase appropriate amounts of materials needed for the job

Curriculum Organizer: Tools & Equipment

It is expected that students will:

- estimate the tools that will be needed to complete a given job
- maintain tools and equipment

Curriculum Organizer: Assessment

It is expected that students will:

• self evaluate the decisions made with regards to purchasing and estimating

Instructional Components:

- Interactive instruction Independent instruction
- Modelling
- Practical creativity
- Brainstorming
- Analysis of commercial projects
- Analysis of professional work
- Analysis of peer projects
 - Direct instruction
- Indirect instruction
- Lecture

Assessment Component:

- Effective formative assessment via:
 - o Clearly articulated and understood learning intentions and success criteria
 - Questions posed by students, peers and teachers to move learning forward
 - Discussions and dialogue
 - o Feedback that is timely, clear and involves a plan
 - O Students are resources for themselves and others peer and self-assessment
 - o Student ownership

Formative assessment used to adapt learning experiences and inquiry plans on an on-going basis to meet specific learning goals.

Development, awareness and action, based upon metacognition intended to lead to learner independence and self-coaching.

Summative Assessment:

Summative assessments will be determined as students demonstrate proficiency/mastery toward particular learning outcomes. Summative assessments and final grades will reflect the following:

- Students will work collaboratively with the teacher to determine summative achievement on assignments and letter grades based upon dialogue, and evidence of learning
- Behaviour and work habits will NOT be included when determining letter grades
- Marks will not be deducted for late work
- Extra credit and bonus marks will not be awarded
- Plagiarizing will not result in reduced marks/grades –the student will be required to demonstrate their learning authentically
- Attendance will not be considered toward letter grade
- Only individual learning demonstrated -no group marks will be used to determine grades
- Letter grades will reflect learning towards the learning outcomes articulated above
- Letter grades will be based upon criteria provided/agreed upon toward the learning outcomes
- Letter grades will be determined in relation to the learning outcomes not in comparison to the achievement of other students
- Poor work will not be assessed towards grades students will only be assessed on quality work
- Professional judgment and evidence will be used to determine final letter grade in consultation with the student
- Zeros will not be assigned to missed assignments all required assignments must be completed
- Formative or practice towards learning outcomes will not be included in final grade assessment
- Most recent evidence toward learning outcomes will be used to assign letter grades learning is not
 averaged over time

Additional Information: This course has been running at Port Moody secondary school since 2002. The students appear to thoroughly enjoy the course, as the numbers of students partaking in it remain steady.