

Board/Authority Authorized Course Framework Template

School District/Independent School Authority Name	Kamloops/Thompson
School District/Independent School Authority Number	SD#73
Developed by	Sue Scallon and Wolfgang Schrottner
Date Developed	January 2012
School Name	South Kamloops Secondary
Principal's Name	Cale Birk
Superintendent Approval Date (for School Districts only)	
Superintendent Signature (for School Districts only)	
Board/Authority Approval Date	
Board/Authority Chair Signature	
Course Name	Musical Instrument Making 11
Grade Level of Course	Grade 11/12
Number of Course Credits	4
Number of Hours of Instruction	110 hours
Prerequisite(s)	None, Wood Tech 10 recommended
Special Training, Facilities or Equipment Required	Wood Shop Machine Tools (Table Saw, Band Saw, Planer, Jointer, Drill Press, Sanders), Hand Tools, Wood Lathe with Wood Turning Tools, Power and Hand Carving Tools. Teacher will need experience in various methods of creatively working with wood and metal.

Rationale

This course has been developed to help students understand, appreciate and create various types of musical instruments that we have in our world through hands on applied learning. Students will learn some of the history behind the development of certain classifications of musical instruments. Students will design and produce artistic and aesthetically pleasing musical instruments, appreciate the knowledge acquired from past generations, research new techniques, problem solve, and design ideas. They will use the machines and hand tools found in a wood and metal shop to express their individual originality while working with wood and metal.

Course Synopsis

Students will gain an understanding and an appreciation of a variety of musical instruments, using wood and metal, through hands on applied learning. Students will learn to apply problem solving practices to produce unique, artistic musical instruments in the wood shop. Work procedures and shop routines will be taught and demonstrated as needed to ensure a safe work environment. Shop skills will be taught with an emphasis on safe procedures.

The course material is presented in six units, the last four being divided into three sections each:

- Research and Experiment
- Personal Development
- Documenting and Communicating about the final product

Each unit is based on different materials, skills, and procedures.

Research and Experiment:

In this section students will experiment with the material and the processes. Experimentation will explore the formation of ideas based on the unit, which can then be transferred to the personal development stage.

Personal Development:

This part of the unit will encourage the personal development of ideas previously brainstormed.

Documenting and communicating the final product:

Students will be expected to put their projects into context. This can be achieved through a class discussion on the topic studied, an exhibition in the school, or other means of communicating about their artwork.

Organizational Structure:

Unit I	Safety	10 hrs
Unit II	Sound, Vibration, and Design	5 hrs
Unit III	Brass Instruments	20 hrs
Unit IV	Percussion Instruments	20 hrs
Unit V	Woodwind Instruments	10 hrs
Unit VI	Stringed Instruments	45 hrs
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Total		110 hrs

Unit: Safety

Time: 10 hours, and throughout the course as needed.

Students will become familiar with basic safety concepts, first as they pertain to the general wood and metal shop, as well as topic specific safety considerations. Machines, hand tools and chemicals used in this course will receive detailed attention.

Curriculum Organizer: Technology

It is expected that students will:

- ~ maintain an orderly and safe environment when engaged in a variety of activities.
- ~ select and safely use hand or machine tools to complete assigned activities.
- ~ demonstrate safe work procedures and routines in all shop activities.

Curriculum Organizer: Self in Society

It is expected that students will:

- ~ demonstrate a positive attitude toward lifelong health and well being.
- ~ demonstrate proper identification and handling of hazardous materials (WHMIS).

Unit: Sound, Vibration, and Design

Time: 5 hours, and throughout the course as needed.

Students will become familiar with design parameters set by the sound properties of each kind of wood or metal encountered. Students will follow an open-ended design process, which allows for improvement and change at almost every step. This unit also gives an opportunity to address different learning styles and intelligences.

Curriculum Organizer: Elements and Principles

It is expected that students will:

- ~ develop a vocabulary for the wood and metal shops.
- ~ identify, describe, analyze, interpret, and make judgments about the basic elements and principles while using wood or metal for musical instruments.

Curriculum Organizer: Applied Problem Solving

It is expected that students will:

- ~ analyze and use appropriate problem solving strategies and critical thinking when resolving the problems assigned.
- ~ use appropriate criteria and standards based on the project to assess and evaluate products, systems, and ideas.

Curriculum Organizer: Personal, Social, Cultural, and Historical Context

It is expected that students will:

- ~ identify, describe, and analyze cultural and historical styles as represented by various musical instruments.
- ~ critique a selected musical instrument, relating its content to the context in which it was created.

Unit: Brass Instruments**Time:** 20 hours

Students will become familiar with historic and contemporary brass instruments. They will develop an appreciation for form and function. Concepts of time tested methods as well as more modern techniques will be explored. Students will produce instruments that are functional and pleasing to the eye. At the end of the unit students will be expected to analyze and respond to brass instruments as part of an orchestra or as a solo instrument.

Curriculum Organizer: Elements and Principles

It is expected that students will:

- ~ create a musical instrument that demonstrates awareness of the basic elements and principles of brass instruments.
- ~ create a brass instrument that demonstrates the use of strategies for developing an artistic image or idea.

Curriculum Organizer: Technology

It is expected that students will:

- ~ use appropriate technologies to explore metals used in instrument making.
- ~ maintain an orderly and safe environment when working with metal.
- ~ understand the properties of metal.

Curriculum Organizer: Personal, Social, Cultural, and Historical Context

It is expected that students will:

- ~ identify, describe, and analyze cultural and historical styles present in selected brass instruments.
- ~ critique a selected brass instrument, relating its content to the context in which it was created.
- ~ describe how a specific brass instrument supports or challenges specific beliefs or traditions, or responds to historical or contemporary issues.

Unit: Percussion Instruments

Time: 20 hours

Students will become familiar with historic and contemporary percussion instruments. They will develop an appreciation for form and function. Students will become familiar with historic and modern techniques of making percussion instruments. Students will produce instruments that are functional and pleasing to the eye. At the end of the unit students will be expected to analyze and respond to percussion instruments in a historical and a modern context.

Curriculum Organizer: Technology

It is expected that students will:

- ~ maintain an orderly and safe environment while working in the wood shop.
- ~ use appropriate techniques and technology when working in the wood shop.
- ~ understand the properties of wood.
- ~ use appropriate technologies to explore metals used in instrument making.
- ~ maintain an orderly and safe environment when working with metal.
- ~ understand the properties of metal.

Curriculum Organizer: Self in Society

It is expected that students will:

- ~ demonstrate a willingness to work alone or in a group setting to produce an artifact which will require a number of different pieces.
- ~ be able to understand how a skill learned in school can help them in the future.

Curriculum Organizer: Personal, Social, Cultural, and Historical Context

It is expected that students will:

- ~ create a percussion instrument that communicates unique ideas.
- ~ identify, describe, and analyze cultural and historical styles as represented by a selected percussion instrument.
- ~ critique a selected percussion instrument, relating its content to the context in which it was created.
- ~ describe how a specific percussion instrument supports or challenges specific beliefs or traditions, or responds to historical or contemporary issues.

Curriculum Organizer: Communication

It is expected that students will:

- ~ use effective communication skills when gathering and sharing information independently and in groups.
- ~ select appropriate information gathering and communication tools when solving problems.
- ~ use appropriate multimedia and information technology in presentations.

Unit: Woodwind Instruments

Time: 10 hours

Students will become familiar with historic and contemporary woodwind instruments. Concepts of time tested methods as well as more modern techniques will be explored. Students will become familiar with wood turning. Students will produce instruments that are functional and pleasing to the eye. Students will be working towards aesthetically pleasing shapes with flowing forms.

Curriculum Organizer: Technology

It is expected that students will:

- ~ identify and evaluate the impact of wood turning on how problems were/are solved and work was/is done in a historical context.
- ~ maintain an orderly and safe environment when working on the wood lathe.
- ~ use appropriate techniques and technology when working on the wood lathe.

Curriculum Organizer: Applied Problem Solving

It is expected that students will:

- ~ identify and apply appropriate knowledge, skills, and attitudes when making choices while designing and turning wood.
- ~ use appropriate criteria and standards to assess and evaluate selected turned musical instruments.

Curriculum Organizer: Expressing our Humanity

It is expected that students will:

- ~ create a turned instrument expressing individual ideas.
- ~ create a practical turned musical instrument to be used in a school setting.
- ~ identify, describe, analyze, interpret, and make judgments about how ideas thoughts, feelings, or messages are communicated by a variety of artisans using turning to create instruments.

Unit: Stringed Instruments

Time: 45 hours

Students will become familiar with the processes of transforming straight sections of wood into curved forms. Selected joinery is used to complement the curved shapes, resulting in artistic and aesthetically pleasing instruments. Students will also study cultural and historic variations on the topic.

Curriculum Organizer: Technology

It is expected that students will:

- ~ use appropriate technologies when designing and producing instruments that incorporate bent wooden parts.
- ~ maintain an orderly and safe environment when working in the wood shop.
- ~ understand the properties of wood i.e. what happens when forces such as compression or tension is applied.

Curriculum Organizer: Personal, Social, Cultural, and Historical Context

It is expected that students will:

- ~ create a bent wood object that reflects an understanding of culture.
- ~ identify, describe, and analyze cultural and historical styles as present in selected stringed instruments.
- ~ critique a specific stringed instrument, relating its content to the context in which it was created.
- ~ describe how a specific stringed instrument supports or challenges specific beliefs or traditions, or responds to historical or contemporary issues.
- ~ identify, describe, and analyze cultural or historical styles as present in selected stringed instruments.

Instructional Components:

- Direct Instruction
- Indirect Instruction
- Problem Solving
- Brainstorming
- Video tapes
- Glossary of terms
- Analysis of historic and contemporary musical instruments
- Unit specific analysis of musical instruments
- Group projects
- Analysis of own and classmates' projects

Assessment Components

Forty per cent (40%) of the final grade will be based on the instructor's evaluation in consultation with the student. This evaluation will be conducted throughout the course. It will focus mainly on developing personal ideas and getting to know new materials, skills and processes.

Sixty per cent (60%) of the grade will be based on the evaluation of the projects submitted by students, personal research projects, and the preparation required in exhibiting their work in the school.

Formative Assessment (40%)

Research and Experiment Review	10%
Personal Development Review	10%
End of Unit Quiz	5%
Safety Tests	10%
Labs	5%

Summative Assessment (60%)

Unit Projects	30%
Research Assignment	15%
Documenting and Communicating Projects	<u>15%</u>
	100%

Performance Assessment

- Project proposals
- Sketches
- Projects
- Portfolio
- Exhibition
- Public Service Projects
- Research
- Labs
- Quizzes
- Tests

Personal Communication

- Group discussion
- Student/Teacher dialog
- Self Evaluation
- Peer Evaluation

Other

- Weekly Assessment
- Teacher anecdotal records
- Teacher log

Learning Resources

- Videos
- Internet
- Wood Project Binder
- Books
 - Collins Complete Woodworker's Manual*, Albert Jackson and David Day
 - Understanding Wood*, R. Bruce Hoadley
 - Identifying Wood*, R. Bruce Hoadley
 - The Encyclopedia of Wood*, Sterling Publishing Co., Inc.
 - Reading the Wood*, Michael Elkan
 - The Encyclopedia of Woodworking*, Chartwell Books, Inc.
 - Classic Hand Tools*, Garrett Hack
 - Guitar making*, William R. Cumpiano & Jonathan D. Natelson