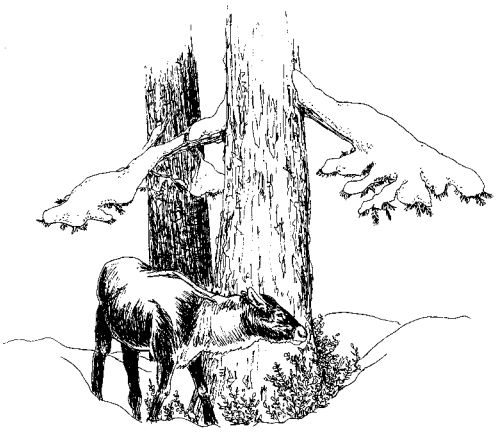
Introduction



The complete five week science study unit can be used to teach the Ecology/Life Science component of the Grade Seven Science Curriculum (1995) for British Columbia.

Lesson plans in the complete study unit cover these topics and more:

- Interactions Within an Ecosystem
- British Columbia's Biogeoclimatic Zones
- Modelling Food Chains
- Forest Succession
- Human Uses and Expressing Values
- Plant Collecting
- Making an Old Forest Mural
- Field Trip Activities with Checklist and Data Sheet
- Making a Booklet on Mountain Caribou
- Worksheets complete with Teacher's Keys
- Researching Mini-Reports

Why Study an Old Forest Ecosystem?

Old growth, ancient forest, decadent forest there are many titles for this marvellous assemblage of life, which exists woven together in a complex ecosystem that takes hundreds of years to form. But in British Columbia, old forests are disappearing rapidly. Along with them we risk losing the biological diversity of life that makes up the old forest ecosystem.

The complete Old Forest Study Unit show teachers how to lead classes through all the concepts they'll need to understand and appreciate these magnificent forests. In this abridge version, you'll find selected lesson plans that will help you teach some of the ecosystem concepts.

Many of the ecological principles presented here are applicable to all types of old forests in British Columbia, but the unit focuses on the Cedar-Hemlock forests of British Columbia's Interior Cedar-Hemlock Zone.

Conforms to the Ecology/Life Science Component *of the* 1995 Grade Seven Science Curriculum

This unit was designed to conform to the Grade Seven Ecology/Life Science component of the 1995 Integrated Resource Package for Science. All the major topics listed in the IRP are presented here, complete with lesson plans and teaching aids supporting a variety of teaching strategies.

There's Lots of Material!

The complete Old Forest Study Unit is far more than a study guide. It includes detailed lesson plans using a variety of teaching approaches, and all the information and teacher's notes you need to support the lesson plans.

If you taught every lesson provided in the complete Study Unit, you'd probably need two months. The lessons presented in this abridged version do not build sequentially however, so be sure your class understands the background concepts needed to understand each lesson's content.

Although this is meant to be mostly a science unit, there are cross curriculum elements throughout. Examples are:

- Math skills are used in creating and using tabular information;
- Library research and report writing are required;
- A list of French words for common plants and animals is included in Appendix Four; and
- Cooperative learning, art, and creative writing are required in some of the projects.

How to Use the Lesson Plans

Each lesson plan includes a list of objectives and identifies the materials you will need to teach the lesson. Photocopy masters for worksheets are located at the end of each lesson.

New vocabulary appears throughout the lessons. Plan to use the words in your spelling program or have the students keep a "word bank" for this Old Forest Ecosystems unit. A Glossary is included as Appendix One.

No evaluation structure is provided. There are obvious activities that can be assessed according to your own marking system, for example: completion of the Mountain Caribou booklet; participation in making the classroom mural; completion of worksheets.

Choose *Wildlife Trees in British Columbia* and *Backyard Biodiversity and Beyond* as excellent sources of activities and concepts to compliment this Old Forest Ecosystem Unit. *(See Appendix Two - Recommended Books)*

Conceptual Outline for Old Forest Ecosystem Study Unit

"An ecosystem consists of living things interacting with each other and their surroundings. "

In **Chapter One, "The Concept of Ecosystem"**, students learn the definition of the word ecosystem and see that food chains and food webs that bind the ecosystem together. They explore the idea that ecosystems occur on different scales, from the small ecosystem within a log right up to British Columbia's fourteen biogeoclimatic zones.

In **Chapter Two, "Looking at an Old Forest Ecosystem"**, students examine the "surroundings" component of the ecosystem definition - the physical characteristics that make an old forest a special place, and how an ecosystem moves through a succession of communities as it restores itself after a disturbance.

In **Chapter Three, "Plants and Animals of Old Cedar-Hemlock Forests"**, students learn about the living things in the old forest ecosystem, and why some organisms depend upon the old forest habitats.

Once students have learned about the old Cedar-Hemlock forest ecosystem, they need a chance to reflect upon what they've learned, and a chance to think about the forest from different perspectives. **Chapter Four, "Ways of Thinking About Old Forests"** presents students with these different perspectives, suggests some reflective activities, and emphasizes the validity of the many values of an old forest.

Chapter Five, "The Past, Present and Future of Old Cedar-Hemlock Forests" looks at the past and present extent of the old Cedar-Hemlock forests, and outlines ways the old forests can be conserved for future generations.