

# **THE BEAR CONNECTION**

**A CURRICULUM GUIDE FOR  
MIDDLE SCHOOL AND UPPER  
ELEMENTARY SCHOOL STUDENTS**

**Bears**



**Humans**

**Wilderness**

Written by  
Maryann Stephenson

# THE BEAR CONNECTION

## INTRODUCTION

Why teach *The Bear Connection*? What does this curriculum offer? During my twenty-some years as a middle school academics teacher, I looked for materials that had the following characteristics: were of the highest quality; were worth learning; were relevant and appealing to students; were fun to teach and were teacher friendly; contained exciting, creative, varied, hands-on lessons; and met the school district's curriculum goals and the standards set by the state of Wisconsin. I aimed for those qualities when writing this material.

This curriculum is the end result of over 45 years of bear watching, reading about bears, studying bears, teaching about bears, and hiking and camping in bear country. I have been impressed by them, frightened by them, and surprised to learn how much they are like us. They are such obvious indicators of wilderness (or the lack thereof) that learning about them may make us expand our awareness to include and to better value our biological heritage. My feeling is that for those of us who have the time, talent and means to help bears, wilderness, and ourselves, it's worth the effort that we may expend.

The money needed for implementing this program is minimal. Most lessons require no additional materials beyond what is usually available in schools, and I have kept the purchase price of *The Bear Connection* low.

The curriculum was written for middle school and upper elementary students, but can be used with other grade levels. Many lessons tend to be on the challenging side -- I decided to include more, rather than less, with the expectation that teachers will use the parts that are appropriate for their needs. The suggested procedures, the labs, the readings, etc., can easily be changed or adapted. Most lessons focus on science; others focus on math, language arts, and social studies. *The Bear Connection* was designed so that individual lessons and groups of lessons can stand by themselves.

The curriculum includes background material to enable teachers who are not biologists to easily teach this unit. The lessons are academically vigorous, with homework. Families will be involved with completion of some of the lessons. The types of lessons are varied, and include some lab work, research teams, computer usage and exploration, reading (individual, cooperative, and by teachers), report preparation and presentation, and community involvement. Emphasis has been placed upon teaching processes and skills of creative problem solving, and upon exploring attitudes and lifestyle choices. Many lessons lend themselves well to the three P's in science education: "Pose a Question, Problem Solve, and Persuade."

Why bears? Everyone knows something about them. Bear symbols are everywhere. And almost everyone has opinions and feelings about bears -- positive and/or negative. Bears are 'glamorous' and exciting species; this inherent interest can be used as a springboard for some good basic learning. Bears and humans are both large, intelligent, dominant species -- we have much in common. People have had a long history of coexistence with bears; there is rich bear mythology and literature. There is much relevant and some cutting-edge biological research going on involving bears, some of which may eventually show human health benefits. Bears, especially grizzly brown bears, equal wilderness: they are keystone species. Several global environmental problems, such as exponential human population growth, changes in biodiversity and climate, and degradation and depletion of natural resources and natural habitat affect bears and, of course, other species -- including humans. The study of bears is a good tool for educating students about the workings of ecosystems, about what constitutes healthy ecosystems, and about their value. Issues involving

# ***THE BEAR CONNECTION LESSONS***

## **INTRODUCTION**

	<u>Page</u>
1. Ursiphile or Ursiphobe? -- Bear Survey and Inventory-----	1
2. Those Bears Are Doing <u>What?</u> -----	5
3. How Close <u>Is</u> That Bear? -- Estimating Distances-----	9
4. Professor Ursidae and the Mini-lecture-----	14

## **BASIC BEAR BIOLOGY**

5. Bear Sizes-----	20
6. Teeth, Jaws, and Skulls-----	27
7. Noses-----	40
8. Paws, Claws, and Tracks-----	50
9. Fat is Good-----	64
10. What a Way to Have Babies!-----	70
11. Hibernation-----	75
12. Bears Get Toothaches, Too-----	81

## **KINDS OF BEARS**

13. The Bears of the World (and Other Mini-lectures)-----	85
14. Bear Mix-Up-----	91
15. Latin and Greek -- <i>Ursus</i> and <i>Arctos</i> -----	98
16. Scientific Classification-----	107

## **LOOKING AT THE WORLD THROUGH A BEAR'S EYES**

17. What Do Bears Need?-----	112
18. Bear Behavior: Why Are Bears So Polite?-----	117
19. Why Do Bears Scare Us So Much?-----	121
20. How to Behave in Bear Country-----	125
21. What Bears Learn, What We Learn-----	142

## **BEARS AND WILDERNESS**

22. Our Sense of Place-----	147
23. Who's Really Dangerous?-----	150
24. What Good Are They, Anyway?-----	160
25. And <u>Then</u> What?-----	165