



A Recommended Approach For Using the Guide

Step 1

Teacher

prepares for the unit by reading the background information about the program, the bosque and the first field trip.

Recommended Readings:

Chapter 1: all
Chapter 2: all
Chapter 3: Planning a Bosque Field Trip

Step 2

The first **class field trip** to the bosque focuses on exploration, observation and “bonding” with the bosque.

Possible BEG Activities: (all in Chapter 3)

Bosque Bingo
Bosque Discovery Booklet
Naturalist Notebooks
Scavenger Hunt

Activities From Other Programs:

(see Appendix C)
Thicket Game (Project WILD)
Water Plant Art (Aquatic PWILD)
River of Words (DAW: RG/RB)

Step 3

Back in the **classroom and schoolyard**, the class undertakes a study of the river, the bosque and ecosystems. Each teacher tailors the program for grade, time, standards to be met and interest in issues.

River of Change (Chapter 4) is a collection of activities that utilize the river model focusing on seeing the river three ways (Rio Bravo, Rio Manso and Rio Nuevo).

Meandering Channels (Chapter 5) is a collection of activities separate from the model done in either the classroom or the schoolyard. They are organized thematically (natural history, geology, water and human influence).

Appendix C also recommends many other activities from other programs that can be a part of this unit.

**Step 4**

The second **class field trip** to the bosque gives students a chance to utilize and expand their knowledge about the bosque. There are opportunities for inquiry learning and exploration.

Suggested BEG Activities:

Activities in **Chapter 3** not utilized during the first field trip

Activities from other programs:

See Appendix C listings under “Field Trips.”

Step 5

Service-learning Project: Planning Stage. Engage students in planning how they can take action to help the bosque. See **Chapter 7** for more details.

Step 6

Service-learning Project: Action and Reflection. Have students participate in a service-learning project that includes a reflection component. See **Chapter 7** for more details.

Step 7

Bosque Celebration. Celebration is the final step for the service-learning project, but it can be combined with a celebration of the entire bosque study. Develop ways to share information the students learned with family, school and community. See **Chapter 7** for more details.



Inquiry-based Learning

As expressed in the National Research Council's National Science Education Standards (1996), inquiry is an important facet of science teaching and learning. Inquiry is more than science as process skills, in which students learn such skills as observing, inferring, and experimenting. This is how the national standards describe inquiry:

When engaging in inquiry, students describe objects and events, ask questions, construct explanations, test those explanations against current scientific knowledge, and communicate their ideas to others. They identify their assumptions, use critical and logical thinking, and consider alternative explanations. In this way, students actively develop their understanding of science by combining scientific knowledge with reasoning and thinking skills.

While providing students with hands-on experiences is essential, it is not enough. Students must have "minds-on" experiences as well. Through inquiry, students will discover that science is something they *do*; it is not something that is done to them.

Many of the activities in this guide provide excellent launching pads for inquiry-based units. For example, after learning how to construct and use kick-nets or do pitfall trapping, students are well equipped to begin an investigation of their own design. Learning the procedures should not be the only outcome for the student; instead, it should be a tool for learning more about the ecology of the bosque.

At this point, the role of the teacher is to encourage and sharpen questions for further investigation, provide guidance on procedure and safety, and help students find resources, be they experts in the field, web sites, or written material. Additional resources for inquiry-based learning are listed in Appendix B: Annotated References.