

Note to Educators

The Forest Service’s mission is to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations. For more than 100 years, our motto has been caring for the land and serving people. The Forest Service, U.S. Department of Agriculture (USDA), recognizes its responsibility to be engaged in efforts to connect youth to nature and to promote the development of science-based conservation education programs and materials nationwide.

The *Natural Inquirer* is a science education resource journal to be used by students in grade 5 and up. The *Natural Inquirer* contains articles describing environmental and natural resource research conducted by Forest Service scientists and their cooperators. These are scientific journal articles that have been reformatted to meet the needs of middle-school students. The articles are easy to understand, are aesthetically pleasing to the eye, contain glossaries, and include hands-on activities. The goal of the *Natural Inquirer* is to stimulate critical reading and thinking about scientific inquiry and investigation while teaching about ecology, the natural environment, and natural resources. In this edition of the *Natural Inquirer*, you will find six articles on climate change written in the scientific method format.

The Format of a Natural Inquirer Article

Each *Natural Inquirer* article follows the same format. *Natural Inquirer* articles are written directly from a published science article and all have been reviewed by the scientists for accuracy. Each article contains the following sections, which you may introduce to your students as they read.

Meet the Scientists: Introduces students to the scientists who did the research. This section may be used in a discussion about careers in science.

Thinking About Science: Introduces something new about the scientific process, such as a scientific habit of mind or procedures used in scientific studies.

Thinking About the Environment: Introduces the environmental topic being addressed in the research.

Introduction: Introduces the problem or question being addressed by the research.

Method: Describes the method used by the scientists to collect and analyze their data.

Findings: Describes the results of the analysis.

Discussion: Discusses the findings and places them into the context of the original problem or question.

Reflection Section: Presents questions aimed at stimulating critical thinking about what has been read or predicting what might be presented in the next section. These are placed at the end of each of the main article sections.

Number Crunches: Presents an easy math problem related to the research.

Glossary: Defines potentially new scientific or other terms to students. The first occurrence of a glossary word is **bold** in the text.

FACTivity: This is a hands-on activity that reinforces an aspect of the research.

Citation: Gives the original article citation with a Web link to the original article.

Science Education Standards and Evaluations

In the back of the journal, you will find a matrix that enables you to identify articles by the national science education standards that they address. Each article also contains a list of the standards addressed. Evaluation forms for both educators and students are available on our Web site. We welcome any feedback, so please visit <http://www.naturalinquirer.org> and complete the online evaluation forms. In addition, you may contact Dr. Barbara McDonald at the address below with any comments you have.

If you have any questions or comments, please contact:

Dr. Barbara (Babs) McDonald
Forest Service, USDA
320 Green St.
Athens, GA 30602-2044
706.559.4224
bmcdonald@fs.fed.us

(Please put “Educator Feedback” in the subject line)

Educator Resources

Visit the *Natural Inquirer* Web site at <http://www.naturalinquirer.org>. From this site, you can order more editions and read and download lesson plans, word games, and other resources to help you use the *Natural Inquirer* in your classroom. You can also view and download a yearlong lesson plan aimed at helping your students learn about the scientific process.

Visit the *Natural Inquirer* Web site at <http://www.naturalinquirer.org>.

Lesson Plan

Note: This is a generic lesson plan that can be used with any article in this edition or with any *Natural Inquirer* article. This is because each *Natural Inquirer* article follows the same format (See Note to educator, page 72).

If students have not yet been introduced to the *Natural Inquirer* and the written scientific format used by scientists, spend 5 minutes on this topic. Below is a sample introduction:

Just as you know the general format of a book or of a Web site, scientists use a particular format when they write up their research. This format usually follows the process they used when they did their study. Because this format is widely used, other scientists know what to expect when they read a scientific paper. Think about the format of a Web site. If you go to a new Web site that has the elements and format that you expect, you can much more easily understand how to search the Web site and find what you want to know. Scientists are able to do the same thing when they read the papers of other scientists.

The *Natural Inquirer* is a science journal that was written at your reading level. It was written directly from research papers that were written by scientists. Because of this, the *Natural Inquirer* follows the same format as the actual scientific paper and it includes additional sections to help you better understand what you are reading. The heart of a scientific paper has four sections: Introduction, Methods, Findings, and Discussion.