

# Time Warp 2: Full Throttle Model

## Natural Inquirer Monograph Series

### 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, an agency of the 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.

*Natural Inquirer* is a science education resource journal to be used by students in grades 5 and up. *Natural Inquirer* contains articles describing environmental and natural resource research conducted by Forest Service scientists and their cooperators. These scientific journal articles 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 *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 *Natural Inquirer*, you will find an article about water quality and the impacts of humans on watersheds.

#### 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, for accuracy, the scientists have reviewed the articles. 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.

**What Kinds of Scientist Did This Research?** Introduces students to the scientific disciplines of the scientists who conducted the research.

**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 that the research addresses.

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

**Findings:** Describes the results of the analysis.

**Discussion:** Addresses 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 questions 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.

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

**FACTivity:** Presents a hands-on activity that emphasizes something presented in the article.

#### Science Education Standards and Evaluations

In the back of the monograph, you will find a listing of education standards which are addressed by this monograph. This listing is also available on the website dedicated to this monograph.

We welcome any feedback. You may contact Dr. Barbara McDonald at the address that follows with any comments you have.

Dr. Barbara (Babs) McDonald

Forest Service

320 Green Street

Athens, GA 30602–2044

706–559–4224

bmcDonald@fs.fed.us

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

#### Educator Resources

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

From this site, you can order more *Natural Inquirer* publications, read and download lesson plans, find word games and other resources to help you use *Natural Inquirer* in your classroom. You can also view and download a year-long lesson plan aimed at helping your students learn about the scientific process.