

Lesson Plan

Note: This generic lesson plan can be used with any article in this edition or with any *Natural Inquirer* article. Using the same plan is possible because each *Natural Inquirer* article follows the same format (See Note to Educators, page 115). A lesson plan for the Hawaiian cultural essays follows.

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.

- Introduction: Introduces the problem or question the scientists addressed.
- Methods: Presents the methods used by the scientists to collect and analyze their data.
- Findings: Presents the results of the research.
- Discussion: Places the findings into the context of the original problem or question.

The extra sections of a *Natural Inquirer* article:

- Meet the Scientists: This section introduces the scientists whose research is presented.
- Thinking About Science: This section provides one big idea, addressed in the article, about the nature of scientific inquiry.
- Thinking About the Environment: This section provides background information that introduces the topic studied by the scientists.
- Reflection Sections: These are questions placed after the Introduction, Methods, Findings, and Discussion sections to help you think about what you have read.
- Number Crunches: These are easy math problems that provide greater understanding about the research.
- Sidebars: These provide additional information about something in the article.
- Glossary: This section introduces potentially new terms used in the article.

- **FACTivity:** This activity provides a chance for you to become a scientist as you conduct an inquiry or activity related to the article you read.
- **Cultural Essay:** New in this *Natural Inquirer*, this item presents cultural information about Hawai‘i and the Federated States of Micronesia.

Scientific writing is nonfiction. Nonfiction is informational or factual. Although most nonfiction writing does not have a plot, scientific papers come somewhat close to having a storyline. A scientific paper’s format generally follows the process that scientists use to do their research. To better understand a scientific paper, it is best to read it in the order it is presented. You can think of a scientific paper as a factual mystery that unfolds in the four sections outlined previously: Introduction, Methods, Findings, and Discussion sections. Scientists are like detectives who solve scientific mysteries.

Time needed: 1-2 class periods.

Materials needed for each student:

- ***Natural Inquirer* article.**
- **Templates provided on page 118.**
- **Pencil with eraser.**

In this lesson, students will increase their reading comprehension, critical thinking skills, and summarization and explanation skills.

Students will become members of the *Natural Inquirer* Twitter Team, assisting the *Natural Inquirer* with teaching others about their article.

Introduce the *Natural Inquirer* article using the information given above.

Give each student a journal or an article and copies of the template given on page 118. Note that there is room for two Tweets on

each page and students will write up to six Tweets.

Tell students that their job will be to summarize each section of the article. Their summarization will take the form of a Tweet, consisting of no more than 140 characters, including punctuation and spaces. Remind them that as they read each section, they should be thinking about and identifying the most important idea in the section. You may want to read this about Twitter: “At the heart of Twitter are small bursts of information called Tweets. Each Tweet is 140 characters in length, but don’t let the small size fool you—you can share a lot with a little space.” (From <http://www.twitter.com>)

Have each student read their article section by section. This can be done as a class with students taking turns reading out loud, reading in small groups, or silently reading alone.

At the end of each major section, students will take 1-2 minutes to identify the most important idea and 1-2 minutes to write it as a Tweet on the template.

After all sections have been Tweeted, hold a class discussion to share Tweets. Alternatively, have students work in small groups to discuss their Tweets. As a small group, have students develop a single group Tweet for each section. These group Tweets may then be shared with the class in a group discussion.

Extension:

Create a class Twitter account and enter the Tweets on the account. “Friend” the *Natural Inquirer* on Twitter. The *Natural Inquirer* staff will retweet the class Tweets.

Natural Inquirer Tweet Sheet

Article:

Section: _____ Tweeted by: _____

Tweet:

Article:

Section: _____ Tweeted by: _____

Tweet:

