

Lesson Plan

Note: This lesson plan can be used with any *Natural Inquirer* monograph or article.

Time Needed:

2-3 class periods

Materials (for each student or group of students):

- *Natural Inquirer* monograph or article
- Writing utensil
- Four note cards

In this lesson plan, students will be given a role in a group to assist in an analysis of a scientific article.

Prep

Familiarize yourself with the chosen *Natural Inquirer* monograph or article. Gather four note cards for each student or group of students and ensure that each group has cards with the titles as shown below.

Summarizer

Questioner

Clarifier

Predictor

Day One

Introduce the *Natural Inquirer*. Explain how scientists conduct research and write it up using a standard format. The format scientists use to write their research generally, but not always, includes the following:

- **Introduction:** Gives the background of and reasons for the research question or problem, which is almost always found near the end of the introduction.
- **Method:** Gives the method the scientist(s) used to collect and analyze their data.
- **Findings:** Presents the findings. This usually, but not always, includes tables, charts, and graphs.
- **Discussion:** Explains what the findings mean in light of the research question or problem presented in the Introduction.

Explain that the sections they will read for homework were added to give them additional background to better understand the upcoming article, which they will read in class.

Have students read the “Glossary,” “Meet the Scientists,” “Thinking About Science,” and “Thinking About the Environment” sections for homework. Students should think about and write a short paragraph summarizing the topic they think the article will address.

Day Two

Hold a class discussion about their homework assignment. What are some ideas students have about what topic they think the article will address? What words or sentences did they use as clues? Write these ideas on the board for all to see.

Put students in groups of four. Distribute one note card to each member of the group identifying each person's unique role

- Summarizer
- Questioner
- Clarifier
- Predictor

In groups, have students read the "Introduction." Encourage them to use note-taking strategies such as selective underlining or sticky-notes to help them better prepare for their role in the discussion.

At the end of the section, the Summarizer will highlight the key ideas up to this point in the reading. Direct students that they do not need to read the Reflection Sections.

The Questioner will then pose questions about the selection:

- Unclear parts of the text
- Puzzling information
- Connections to other concepts already learned
- Motivations of the scientists

The Clarifier will address confusing parts of the text and attempt to answer the questions that were just posed by the Questioner. The Predictor will offer guesses about what might come next in the text.

The roles in the group then switch one person to the right, and the next section is read. Students repeat the process using their new roles. This continues until the entire article is read. There are four sections to each article. Each student should have an opportunity to play every role.

Hold a class discussion that compares and contrasts what the students discovered while playing the various roles.

For homework, assign each student a set of

Reflection Section questions from the Introduction, Method, Findings, or Discussion sections. Have students write down the answers to their appropriate section.

Day Three

Remind the students that they have read the Introduction, Method, Findings, and Discussion sections. Address any questions the students had about the previous day's activity. Review the article by discussing their answers to the Reflection Questions from each section.