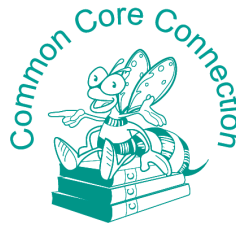


Lesson Plan



Note: This lesson plan may be used with this and any *Natural Inquirer* monograph or article, or *Investi-gator* article.

Time Needed

2 class periods

Materials (for each student or group of students):

- *Natural Inquirer* monograph or journal article, or *Investi-gator* journal article
- Pencil or pen
- Thin and Thick Graphic Organizer
- Blank paper

In this lesson plan, students will read a *Natural Inquirer* or *Investi-gator* article and create “thin” and “thick” questions related to each section of the article. Then, as a group students will review the “thin” questions while reviewing the article content. “Thick” questions will be used to create persuasive essays using information learned in the article.

Methods:

Prep

Educators should choose one *Natural Inquirer* monograph or one article from either a *Natural Inquirer* or *Investi-gator* journal. Read the article fully.

Day One

Explain to students that there are different types of questions. For instance, some questions have a clear answer. For this lesson, we’ll call these questions “thin” questions. Another type of questions is one which does not have a specific answer, called a “thick” question. Thick questions are questions which people can debate, but must be supported using available information (i.e., What if, How come, Why).

Example of a thin question: “Where did the scientists conduct their research?”

Example of a thick question: “What if the scientists let the experiment continue for another year?”

Ensure that students understand the difference between the two types of questions. Provide each

student with a copy of the chosen *Natural Inquirer* monograph or journal article or *Investi-gator* journal article. Provide each student with a copy of the Thin and Thick Graphic Organizer.

Instruct students to begin reading the text. At the end of each section, have students fill in the Thin and Thick Graphic Organizer with their questions related to that section. Once everyone has finished the text, collect the Thin and Thick Graphic Organizers and identify common questions for each section of the text.

Day Two

Starting at the beginning of the article, review each section briefly as a group. After reviewing a section, show the students the most commonly asked “thin” questions from the previous class period. Provide students a chance to help answer these questions for their classmates. Help students locate the answers in the text if they are available. Answer any other “thin” questions that students present during this review session.

Next, provide or project a list of commonly asked “thick” questions. Or create some “thick” questions which you believe are valuable for student comprehension. Provide each student a blank piece of paper and a pencil or pen. Ask each student to choose one “thick” question and write that question at the top of their blank piece of paper. Then, task students with writing a short persuasive essay answering the question.

Student’s persuasive essays should use information, evidence, and vocabulary from the *Natural Inquirer* or *Investi-gator* article on which this activity is based. As an alternative, provide this assignment for homework and allow the students to use outside sources, as well as the original text, to create a persuasive essay.

Thin and Thick Graphic Organizer

Article Section	Thin Question	Thick Question
Thinking About Science		
Thinking About the Environment		
Introduction		
Methods		
Findings		
Discussion		