

## Questions

Someone says to you, “I believe that two plus two equals five. I will sue you unless you adopt my belief. ” How would you respond?

## Materials Needed

For this activity, you will need the following materials:

- a document to analyze, provided by your instructor
- a pencil (do not use ink)
- the ability to read and follow directions

## Points To Remember

Unless otherwise explicitly instructed, your responses must not contain personal opinions. All of your responses must be in the form of complete sentences; the fewer sentences the better. Spelling and grammar must be correct. Effective communication is essential for both learning and doing science.

Don't ask instructors for answers to questions posed in activities; you won't get them. You may ask questions regarding the clarity of the instructions or the soundness of your reasoning. If you encounter a word you are not familiar with, don't ask the instructor about it. Look it up first in your glossary and then a dictionary or some other source if necessary. Ensure that all definitions are unanimously agreed upon before proceeding. There are, of course, sound reasons for these policies. See the instructor if you have questions, but do not complain about these policies. They are not negotiable.

## 1 Introduction

You do not know who authored the document you have. It could have been an individual or it could have been a group of individuals. For the purposes of this activity, these instructions will refer to a single author despite what you may eventually discover about the document's origins.

### 1.1 First Paragraph

What supporting evidence does the author provide for the claim made in the first sentence?

## 1.2 Remaining Six Paragraphs

For each of the remaining six paragraphs, identify a point being made and any sentences in the same paragraph that support the point you identified. Don't be alarmed if you can't identify any points.

## 1.3 Seventh Paragraph

What is the most probable purpose of this paragraph? Note that with only three sentences, it is not really a paragraph.

## 2 Strategy

### 2.1 Five Year Strategic Plan Summary

Read through the first paragraph under Five Year Strategic Plan Summary. What is the tone of this paragraph?

Read the very last sentence of this paragraph. How does this sentence make you feel? You may express personal opinions here, but try very hard not to reveal anything about your personal beliefs.

Does this sentence address anything about *science* as you currently understand the meaning of the word *science*?

Note the use of the terms *scientific* and *theory* in this paragraph. Without looking up these terms in any book or online resource, define them in your own words.

Read the next paragraph, again noting that it only consists of two sentences. From the information given, when would you estimate this document was written?

Read the paragraph on Phase I, noting the words *indoctrinate* and *persuade*. What is the difference between these two words?

Consider the sentence that begins, “Scientific revolutions ...” Based on what you currently know about science, is this statement true or false? Give an example to back up your answer.

Read the paragraph on Phase II. Based only on this paragraph, can you identify the document’s probable author? Include all possibilities and back up each possibility you cite.

Does this paragraph sound more like *indoctrination* or *persuasion*?

Why would the author include PBS as part of a strategy?

Read the paragraph on Phase III. In the first sentence, note the mention of “preparing” the public for the reception of design theory. What could this mean?

Note the term *materialist science*. What does this term mean and where is it defined? Cite your sources.

Note the mention of legal assistance. What is the tone of this sentence?

Note the mention of *debate* in the penultimate sentence. When you hear the word *debate*, what comes to mind?

Can people who agree on everything have a legitimate debate on the issue on which they all agree?

## 2.2 Goals

Read through all the stated goals. Under **Governing Goals**, note the mention once again of *scientific materialism*. Do you know of any connection between science and materialism?

Does the second goal under **Governing Goals** have anything to do with science as you currently understand it?

Under what conditions would the first goal under **Five Year Goals** be worthy of pursuit?

Read the **Twenty Year Goals**. Suppose for the moment that intelligent design has indeed been shown to be a viable alternative to existing explanations. What would you then think of these goals? Would they be worthy of pursuit?

### 2.3 Five Year Objectives

How many of these goals have you seen met? Cite specific examples.

### 3 Inquiry

In as few sentences as possible, state this document's purpose based on its content.

The author makes numerous references to *design theory* and *intelligent design*. Assume that these two terms are synonymous. What **evidence** does the document provide that intelligent design is actually correct? Cite as many specific examples as you can find.

What does the document say about the best way to prepare pork barbeque? Defend your response.

In your opinion, is this document real or fictitious? Defend your response. Remember, though, that opinions are neither right nor wrong. They may, however, be informed or uninformed and that's why you're asked to defend your response.

Read through the entire document again, but replace every occurrence of any mention of either *design* or *intelligent design* with *astrology*. Would you take the resulting document seriously? Defend your response.

Read through the entire document again, but replace every occurrence of any mention of either *design* or *intelligent design* with *the idea that two plus two equals five*. Would you take the resulting document seriously? Defend your response.

Read through the entire document again, but replace every occurrence of any mention of either *design* or *intelligent design* with *mathematics*. Would you take the resulting document seriously? Defend your response.

Read through the entire document again, but replace every occurrence of any mention of either *design* or *intelligent design* with *quantum mechanics*. Would you take the resulting document seriously? Defend your response.

Read through the entire document again, but replace every occurrence of any mention of either *design* or *intelligent design* with *extracalitrism*. Would you take the resulting document seriously? Defend your response.

A mathematics colleague invites you to participate in a debate. The topic to be debated is *two plus two equals five*. Would you participate? Defend your decision.

A mathematics colleague invites you to participate in a debate. The topic to be debated is *two plus two equals four*. Would you participate? Defend your decision.

Given the document's contents, what, if anything, can we conclude about the author's attitude toward science? Defend your response.

Given the document's contents, what, if anything, can we conclude about the author's attitude toward religion? Defend your response.

Given the document's contents, what, if anything, can we conclude about the author's attitude toward education? Defend your response.

Based on **your** experiences, does our society (specifically **American** society) encourage people to proclaim their superstitious beliefs? Are people positively or negatively reinforced in any way for doing so? Cite specific examples and defend your response.

Based on **your** experiences, does our society (specifically **American** society) encourage people to proclaim their acceptance of science? Are people positively or negatively reinforced in any way for doing so? Cite specific examples and defend your response.

Now suppose you are a *propagandist*. Your superiors have charged you with convincing the public that two plus two equals five. How would you go about promoting the idea that two plus two equals five? Cite any helpful tips found in this document.

Did this activity cause you to feel under attack for holding certain beliefs? Be specific in your response.

Did this activity cause you to change any of your personal religious, philosophical, or political beliefs? Be specific in your response.

Describe your thoughts and actions if you were to register for an astronomy course and on the first day, you discover the instructor is a lawyer, rather than an astronomer or physicist, with little or no science background.

## 4 How To Detect Arguments

Here is a general strategy for determining whether a written passage contains arguments or something else trying to pass for arguments.

- underline the premise and conclusion indicator words (your instructor will fill you in about these)
- number the statements, and only the statements (again, your instructor will provide details)
- circle the sentence containing the conclusion
- strike through unneeded information
- if the passage contains an argument, you should be left with a conclusion and all of its supporting premises
- if the passage does not contain an argument, you should have nothing left

### 4.1 Practice

Here is a passage on which to practice this strategy. Try it now within your groups.

There is no question in my mind. I therefore maintain that Colonel Mustard is the murderer. Because if he did it, he would probably have blood stains on the sleeve of his shirt. The blood stains are tiny, but they are there. Any observant person could see them. Also the murder weapon was within the colonel's reach for quite a while before the crime was committed. And since of all the people in the house at the time he alone does not have an airtight alibi, he must be the killer.

If this passage contains an argument, list the argument's premises and conclusion (in that order).

If this passage does not contain an argument, discuss the author's motive for writing it.

## 4.2 More Practice

Here is a longer passage on which to practice.

The famous trial lawyer Clarence Darrow (1857-1938) made a name for himself by using the "determinism defense" to get his clients acquitted of serious crimes. The crux of this approach is the idea that humans are not really responsible for anything they do because they cannot choose freely – they are "determined," "predestined," if you will, by nature (or God) to be the way they are. So in a sense, Darrow says, humans are like wind-up toys with no control over any action or decision. They have no free will. Remember that Darrow was a renowned agnostic who was skeptical of all religious claims. But Darrow is wrong about human free will for two reasons. First, in our moral life, our own commonsense experience suggests that sometimes people are free to make moral decisions. We should not abandon what our commonsense experience tells us without good reason – and Darrow has given us no good reason. Second, Darrow's determinism is not confirmed by science, as he claims – but actually conflicts with science. Modern science says that there are many things (at the subatomic level of matter) that are not determined at all: They just happen.

If this passage contains an argument, list the argument's premises and conclusion (in that order).

If this passage does not contain an argument, discuss the author's motive for writing it.

### 4.3 Even More Practice

Here is yet another passage on which to perfect the strategy.

Ò[Is] there scientific evidence that prayer really works? ... The problem with ... any so-called controlled experiment regarding prayer is that there can be no such thing as a controlled experiment concerning prayer. You can never divide people into groups that received prayer and those that did not. The main reason is that there is no way to know that someone did not receive prayer. How would anyone know that some distant relative was not praying for a member of the group ... identified as having received no prayer?Ó [Free Inquiry, Summer 1997]

If this passage contains an argument, list the argument's premises and conclusion (in that order).

If this passage does not contain an argument, discuss the author's motive for writing it.

#### 4.4 Still More Practice

Here is one more passage on which to practice.

My family and friends have season tickets for the Hickory Lobsters. The disrespect that is shown to America by this team is appalling, particularly in this time of war. As the national anthem is sung before each game, members of the team are hopping around, tugging at their uniforms, talking and carrying on amongst themselves. The players can't even wait for the national anthem to finish before they run off to their respective field positions. Whether one is for or against the war is irrelevant. Have some respect for America and what it stands for. [Fictional letter to the editor, based on one from the Buffalo News website]

If this passage contains an argument, list the argument's premises and conclusion (in that order).

If this passage does not contain an argument, discuss the author's motive for writing it.

What could be done to make this activity more interesting? Please be honest.

## 4.5 Application

Now that you've practiced, apply this same strategy to the document with which you began this activity. Record any argument, along with its premises and conclusion, in the space provided.



———— CHECKPOINT ————

What could be done to make this activity more interesting? Please be honest.

