

# ANALYZING INVESTIGATION WRITING – APPLYING BHP CONCEPTS

## Purpose

In this third activity in the Investigation Writing series, students will tackle the fifth and final row of the BHP Writing Rubric, Applying BHP Concepts. This is yet another way for them to think about how the criteria presented in the rubric can be found in writing. Students will examine another writing sample, looking for the BHP concepts in the student essay. At the end of this lesson, students will be able to identify the key elements that should be a part of any Investigation essay that they write. This is the first step in becoming more skilled BHP writers.

## Practices

### *Reading, claim testing*

Students cannot complete this activity's worksheet without engaging in analytical reading. The practices of reading and writing are bound in many ways, and the connections between the two should be highlighted whenever possible. The essay students are asked to review discusses claim testing – this is a great opportunity to review this practice with your students.

## Process

Let students know that this is another activity in which they examine a piece of student writing to identify the core elements that should be included in an Investigation essay. This time, they'll be focusing in on the use of BHP concepts. This essay incorporates BHP concepts that they already know a good bit about, even though it's early in the course—claim testing and the geocentric/heliocentric views of the Universe.

Have students look at the fifth row of the BHP Writing Rubric, Applying BHP Concepts, which is included in this document. When analyzing the student writing sample in relation to this criteria from the rubric, they should pay attention to whether or not BHP concepts are used, how they are used (that is, are they used accurately and with understanding?), and whether the concepts used are connected to arguments made in the paper.

Have students read the essay on the second page of their worksheet, keeping BHP concepts in mind. Let students know that this essay is in response to the Unit 2 Investigation question, "How and why do individuals change their minds?" After they've read the essay once, ask them to reread and annotate it, following the directions provided. Once students are done with the worksheets, review the answers as a class. Remind them that they are about to start another Investigation and should be sure to include BHP concepts as part of their essay.

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**Directions:** First, read the text below, thinking about the fifth row of the BHP Writing Rubric, Applying BHP Concepts. After you've read it, mark up the passage as follows:

1. **Circle** anywhere BHP concepts are used.
2. **Underline** anywhere the writer shows an understanding of the BHP concepts.
3. **Highlight** (or underline in a new color) any text in which the writer connects the concepts to the argument or evidence.

Tip: Some of the writing is circled, underlined, AND highlighted.

*Note: This essay is in response to the Unit 2 Investigation question (which is also the Investigation 0 question), "How and why do individuals change their minds?"*

The way our world works is truly fascinating. New inventions and discoveries are being made every day. For example before Edwin Hubble discovered other galaxies, we thought our universe was the whole galaxy. Individuals are capable of changing their mind based upon intuition, logic, authority, and evidence. Intuition means the direct perception of truths and facts. For example, if I need gas to run a car and I have no gas that means that I cannot run the car. Logic means proof by reasoning. Authority means expertise in a field and evidence is information that proves or disproves. In this essay I shall be addressing how and why humans change their mind.

From thousands of years ago humans have been continuously giving reasons to explain phenomena's that occur in our world. For example, in ancient civilizations people claimed that the creator of the universe was a divine being whom they called God. But over time we collected new evidence and we formed the Big Bang Theory. We like to give reasons to explain what goes on around us and as we get more evidence our theories also change. It is necessary for our theories to change because as I mentioned numerous times, new evidence can lead to new perceptions of the same idea. It would certainly be a waste not to use that evidence to improve our understanding. It has happened continuously throughout history from Amun Ra dragging the sun across the sky for the Egyptians all the way to it moving across the sky because of Earth's rotation.

Let us take the example of the shift from the geocentric to the heliocentric universe provided for us in the Big History document. First Ptolemy suggested the idea of geocentricism. I like to think he used basic logic and intuition to form this theory He observed that the sun, moon and the planets moved across the sky. The Earth seemed stationary and so it seems obvious the planets, stars and moon orbit us. This theory was accepted for many years. More than a thousand years later, Copernicus saw how the planets orbits could fit better with the heliocentric universe. This again shows humans change their mind mainly on evidence but we also tend to follow people with authority in the subject.

Others may argue that authority or intuition is more important when individuals change their mind. However, in all regards, if Stephan Hawking came and told us right now that we are all living inside a black hole and didn't have any evidence to support the fact, would it be prudent to claim that is the right answer to whatever question he answered. Intuition can be good for making basic assumptions, but when we are talking about groundbreaking discoveries, a lot of factors such as scientific rules come into play.

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All in all, I feel as we gain new information, new evidence, we need to put all of it together to form the ultimate jigsaw puzzle. Humans change their mind because we want to create better explanations for the universe, or for anything else. We change our minds because the four claim testers provide a basis for us to test new theories and see which one fits best. Perhaps in the future, we'll be making discoveries of numerous universes.

Sample comments: This essay was given a “Proficient” score on the BHP Writing Rubric. In terms of applying BHP concepts, you did a great job of incorporating all the claim testers into your essay. You’ve also connected them to your claim and to your evidence. Your second BHP concept (the geocentric and heliocentric views of the Universe) was not explained as well as the claim testers. For example, you mentioned both but only defined one of these (geocentric) and did not fully explain that shift to the heliocentric view (or the evidence that was used to discover this new theory).



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## Purpose

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## Practices

### *Reading, claim testing*

You cannot complete this activity's worksheet without engaging in analytical reading. The practices of reading and writing are bound in many ways, and you should think about those connections whenever possible. The essay you are asked to review discusses claim testing – make sure to review this practice with your class to keep it fresh in your mind.

## Process

This is another activity in which you'll examine a piece of student writing to identify the core elements that should be included in an Investigation essay. This time, you'll be focusing on the use of BHP concepts. This essay incorporates BHP concepts that you already know a good bit about, even though it's early in the course—claim testing and the geocentric/heliocentric views of the Universe.

Look at the fifth row of the BHP Writing Rubric—Applying BHP Concepts. When analyzing the student writing sample in relation to this criteria from the rubric, pay attention to whether or not BHP concepts are used, how they are used (that is, are they used accurately and with understanding?), and if the concepts used are connected to arguments made in the paper.

Now, take out the Applying BHP Concepts Worksheet, and read the essay keeping BHP concepts in mind. This essay is in response to the Unit 2 Investigation question, "How and why do individuals change their minds?" After you've read the essay once, reread and annotate it, following the directions provided. Once you're done with the worksheet, review the answers with your class. For your next activity, you'll be responding to another Investigation question, so be sure to include BHP concepts as part of your Investigation essay.



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**Directions:** First, read the text below, thinking about the fifth row of the BHP Writing Rubric, Applying BHP Concepts. After you’ve read it, mark up the passage as follows:

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*Note: This essay is in response to the Unit 2 Investigation question (which is also the Investigation 0 question), “How and why do individuals change their minds?”*

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It is necessary for our theories to change because as I mentioned numerous times, new evidence can lead to new perceptions of the same idea. It would certainly be a waste not to use that evidence to improve our understanding. It has happened continuously throughout history from Amun Ra dragging the sun across the sky for the Egyptians all the way to it moving across the sky because of Earth’s rotation.

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## WRITING RUBRIC

	Advanced	Proficient	Developing	Emerging
<b>Claim and Focus*</b> Make a clear claim about the topic early in the essay and focus on proving it.	The essay makes a precise and significant claim based on the topic and/or source(s). The essay maintains a strong focus on defending a directly stated position, using the whole essay to support and develop the claim and counterclaims while thoroughly addressing the demands of the prompt.	The essay makes a clear claim based on the topic and/or source(s). The essay maintains focus on defending an identifiable position, using most of the essay to support and develop the claim and counterclaims while addressing the demands of the prompt.	The essay makes a claim based on the topic and/or source(s), but it may not fully address the demands of the prompt. Counterclaims may not be acknowledged, and the essay may not stay focused on the purpose and task.	The essay makes an overly simplistic or vague claim, or a position on the topic and/or source(s) may not be stated. Counterclaims are not acknowledged, and the essay does not address the purpose, task, or demands of the prompt.
<b>Analysis and Evidence</b> Choose the right evidence and explain how it supports the claim and analysis.	The essay cites the most appropriate and valid evidence to support its claim, drawing information substantively from multiple sources to defend its position and effectively refute counterclaims. The essay demonstrates insightful reasoning and careful understanding of the sources, acknowledging inconsistencies or weaknesses in evidence, and fully explains the relationship between claims and support.	The essay cites sufficient and appropriate evidence to support its claim, drawing information from multiple sources to defend its position and refute counterclaims. The essay demonstrates reasoning and understanding of the sources, potentially acknowledging inconsistencies or weaknesses in evidence, and adequately explains the relationship between claims and support.	The essay cites evidence to support its claim, but it may be insufficient or draw unevenly from available sources. Support may be inadequate in defense of the position and refutation of the counterclaim or rely too heavily on summary. The essay demonstrates some reasoning and/or understanding of the sources, though explanations of the relationship between claims and support are not always clear.	The essay cites minimal or irrelevant evidence to support its claim. Support may rely primarily on opinion, reasoning, or summary of the source(s) without clear cited evidence. The essay demonstrates little to no reasoning and/or understanding of the sources. An explanation of the relationship between claims and support is not present.
<b>Organization</b> Present ideas in a structure that enhances the analysis. Use transitions throughout the essay to make connections clear.	The essay incorporates precise transitions within a sophisticated organizational structure that enhances the relationships between and among ideas and promotes cohesion and clarity. A well-executed, logical progression of ideas is clearly constructed, including an effective introduction and a conclusion which follows from and supports the claim and analysis.	The essay employs an organizational structure that shows the relationships between and among ideas, yielding a cohesive analysis. Clear transitions support a logical progression of ideas, including an effective introduction and a conclusion which follows from and supports the claim and analysis.	The essay uses a simplistic organizational structure, though relationships between ideas may not be consistently clear. Use of transitions is sparse, repetitive, and/or does not show the connections among sections of the text. A progression of ideas is evident, however, the introduction and/or conclusion may not be fully developed or follow from and support the claim and/or analysis.	An organizational structure is not evident, and relationships between ideas are not consistently clear. The essay may read as a series of unrelated ideas, as the absence of transitions makes it difficult to see connections among sections of the text. An introduction and/or conclusion is missing from the essay.



## WRITING RUBRIC

	Advanced	Proficient	Developing	Emerging
<p><b>Language and Style</b></p> <p>Use specific, interesting language and clear sentence structure to communicate ideas.</p>	<p>The essay has an established, formal style and objective tone that is maintained throughout. The essay uses varied sentence structure, precise language, and domain-specific vocabulary in a way that addresses the complexity of the topic. Few errors are present, and they do not interfere with meaning.</p>	<p>The essay has an established, formal style that is maintained throughout. The essay uses mostly correct, varied sentence structure and generally uses precise language and domain-specific vocabulary in a way that generally addresses the complexity of the topic. The essay may have some errors, but they do not interfere with meaning.</p>	<p>The essay attempts to establish a formal style that may not be maintained throughout. The essay attempts to vary sentence structure and uses some precise language that may be domain-specific at times but may address the complexity of the topic inconsistently. The essay contains some errors that may interfere with meaning.</p>	<p>The essay does not establish and/or maintain a formal style. The essay uses little variety in sentence structure, and the language is general and not domain-specific. The essay contains errors that interfere with meaning.</p>
<p><b>Applying BHP Concepts†</b></p> <p>Choose and accurately apply the relevant BHP concepts in a way that shows understanding, and further supports the argument and evidence presented in the essay.</p>	<p>The essay effectively applies at least one BHP course-level concept and/or unit-level concept or content. The concept(s) or content are connected to the argument or evidence in the essay, and misconceptions are avoided. There are no errors in applying BHP concepts or content, and the essay draws on both knowledge within the Investigation and the unit as well as knowledge beyond or outside the Investigation or unit. The essay demonstrates a clear understanding of the topic, the concepts, and the time period discussed in the essay. The essay makes use of broader historical or scientific knowledge than is located in the course.</p>	<p>The essay applies one BHP course-level concept and/or unit-level concept or content. The concept or content is connected to the argument or evidence in the essay, and misconceptions are avoided. There are no errors in applying BHP concept or content to illustrate or support concepts and claims, or to inform the essay. The essay draws on both knowledge within the Investigation and the unit as well as knowledge beyond or outside the Investigation or unit. The essay might draw on broader historical or scientific knowledge than is located in the course to make claims, but might contain some inaccuracies.</p>	<p>The essay tries to apply at least one BHP course-level or unit-level concept or content, but does not fully articulate the concept's meaning or connection to the argument. It does avoid explicit misconceptions of the concept and may make an occasional minor error in applying BHP facts or concepts (that is, ones not found in the Investigation library) to illustrate or support concepts and claims, or to inform the essay. The essay does not draw on broader historical or scientific knowledge than is contained in the course.</p>	<p>The essay incorrectly or inappropriately mentions at least one BHP course-level concept and/or unit-level concept or content, and it may include misconceptions of that concept. The essay may make many minor errors or a major error in applying new BHP facts or concepts (that is, ones not found in the Investigation library). The student fails to use historical content in any meaningful way, and instead simply lists factors or describes elements of the topic.</p>

\*Turnitin, LLC, created the first four rows of this rubric for use with their Revision Assistant and Turnitin tools.

†The “Applying BHP Concepts” row of the rubric should be used by teachers and students to assess student learning and understanding in this area. *Teachers should not assess student writing using Turnitin reports exclusively.*



# WRITING RUBRIC

Name:

Date:

	Advanced (4)	Proficient (3)	Developing (2)	Emerging (1)	Score
Claim and Focus					
Analysis and Evidence					
Organization					
Language and Style					
Applying BHP Concepts					

Toal Score