Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_

Article Summary and Research- **BEC**

|  |
| --- |
| 1. Before you read your article, read through the assignment below and then **underline, highlight and/or annotate** (notes in the margin) the important statements in the article. |
| 2. State the topic of the text: A few words stating what the text is ***about***. |
|  |

|  |
| --- |
| 3. State the main idea of the text: ***the author’s claim about the topic*** in one sentence. **Always include the author name and the title of text in this sentence.** |
|  |
|  |
| 4. What reasons/evidence does the author use to support the main idea? Provide 3 or more reasons/evidence. |
|  |
|  |
| **5.** State whether you think the information presented in the article is **reliable** and **explain why.** |
|  |

What the heck is BEC?

Use the following websites and prompts to help you understand Bose-Einstein Condensate and complete the table below.

BEC Homepage at University of Colorado: <http://www.colorado.edu/physics/PhysicsInitiative/Physics2000.03.99/bec/index.html>

# Greg Kuebler, Bose-Einstein Condensate interactive simulator

<http://gregkuebler.com/portfolio-item/bose-einstein-condensate-interactive-simulator/>

Bose-Einstein Condensate: A New Form of Matter at NIST

<http://www.nist.gov/public_affairs/releases/bec_background.cfm>

|  |  |
| --- | --- |
| What is BEC? | How can lasers be used to help form it? |
| How can magnets be used to help form it? | How does evaporative cooling help form it? |
| How is it different from solids, liquids, and gases? | Other important information … |

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_

Article Research and Analysis Part 2

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Find a research article (post 2005) that describes an application, extension, or development of BEC.  **Attach the first 2 or 3 pages of the article.** | | | |
| 2. Write a properly formatted APA bibliography for the research article. | | | |
| 3. Determine the reliability of the article by evaluating each CARS category to establish reliability. | | | |
| Category | **State whether article is C, A, R, or S and explain why by providing a statement(s), name(s), or detail(s) from the article (or lack thereof) that supports your statement.** Use four different highlighters showing the part of the article that is credible in one color, accurate in a second color, reasonable in a third color and support in the fourth color. Color the letters below that correspond to the highlighted article. | | |
| C |  | | |
| A |  | | |
| R |  | | |
| S |  | | |
| 4. Overall, is the information in this article reliable? Explain your answer. | | |
| 5. Compare statements from your original article with statements from your research article and explain how the properties of BEC allowed the new application/extension. | | |
| Write 2 or 3 key statements from the **original article** that describe the properties of BEC necessary for the application described in your research article. | | Write 2 or 3 key statements from the **research article** that show how the application in your research article is connected to the property described. *Make sure all key statements are highlighted within the research article.* |
| 6. Explain whether the discovery of BEC should be considered a significant scientific discovery. Include examples from your research article. | | |